# Santa Maria River Bridge Replacement Project

On State Route 1 at the border of San Luis Obispo County and Santa Barbara County, just north of the City of Guadalupe
05-SB; SLO-01-PM50.3/50.6; PM0.0/0.3
Project EA: 05-1H440
Project ID: 0516000074

## Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment

**Prepared by the**

**State of California Department of Transportation**

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016 and executed by the Federal Highway Administration and Caltrans.

**May 2020**

## General Information About This Document

***What's in this document:***

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Initial Study/Environmental Assessment, which examines the potential environmental impacts of alternatives being considered for the proposed project in Santa Barbara and San Luis Obispo counties in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

***What you should do:***

- Please read the document.
- Additional copies of the document and the related technical studies are available for review at the following location: Caltrans District 5 Office at 50 Higuera Street, San Luis Obispo, CA 93401.
- The document can be accessed electronically and downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-5/
- Due to the current COVID-19 pandemic, if you prefer a printed copy or CD version of this document, please contact: Matthew Fowler at 805-542-4603 by phone or at matt.c.fowler@dot.ca.gov via email.
- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline. Submit comments to: Environmental Branch Chief, Attention: Matthew Fowler, California Department of Transportation, Environmental Planning, 50 Higuera Street, San Luis Obispo, California 93401 via U.S. mail or at matt.c.fowler@dot.ca.gov for emails.
- Submit comments by the deadline: ***July 2, 2020***

***What happens next:***

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

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

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Matthew Fowler, Environmental Planning, 50 Higuera Street, San Luis Obispo, CA 93401; phone 805-542-4603 (Voice); or use the California Relay Service, 1-800-735-2929 (TTY), 1800) 735-2929 (voice), or 711.

05-SB; SLO-01-PM 50.3/50.6; PM 0.0/0.3
EA: 05-1H440
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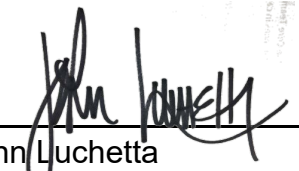
Replace the existing Santa Maria River Bridge on State Route 1 at the border of San Luis Obispo County and Santa Barbara County, just north of the City of Guadalupe

# INITIAL STUDY
# with Proposed Negative Declaration/ ENVIRONMENTAL ASSESSMENT

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

THE STATE OF CALIFORNIA
Department of Transportation
and
California Transportation Commission



John Luchetta
Office Chief, Central Region
Environmental Central Coast Office
California Department of Transportation
CEQA and NEPA Lead Agency

April 21, 2020
Date

The following individual may be contacted for more information about this document:
Matthew Fowler, Environmental Branch Chief
50 Higuera Street
San Luis Obispo, California 93401
805-542-4603
matt.c.fowler@dot.ca.gov

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# DRAFT
# Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

## Project Description

The California Department of Transportation (Caltrans) proposes to replace the Santa Maria River Bridge (Bridge Number 49-0042) on State Route 1 at the border of San Luis Obispo County and Santa Barbara County, just north of the city of Guadalupe. A new bridge structure would be constructed next to the existing bridge, which would be removed once construction of the new bridge structure is complete. The new bridge would conform to current design and safety standards. The project would also realign roadway, replant vegetation and relocate utilities. State Route 1 would remain open to traffic during project construction, and temporary traffic control would be required.

## Determination

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

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on existing or future land use, coastal resources, wild and scenic rivers, timberland, growth, wetlands, cultural resources, paleontological resources or mineral resources.

The proposed project would have no significant effect on community character, parks and recreational facilities, utilities, emergency services/systems, traffic, transportation, wildfire hazards, hydrology, floodplain, water quality, geology, soils, greenhouse gasses, air quality, noise, hazardous waste, or visual/aesthetic.

The project would have no significant adverse effect on biological resources because the following mitigation measures would reduce the potential effects to insignificance:

*Biological Resources Mitigation*

- California red-legged frog habitats disturbed by project related activities will be returned to natural configuration at the end of project construction. This measure will be implemented for all areas disturbed by project related activities, unless not feasible, or modification of original conditions would better benefit California red-legged frog.

- The biological study area of the project will be re-seeded with an appropriate native seed mix to enhance and restore La Graciosa Thistle critical habitat at end of project construction.
- Project sites shall be revegetated with native riparian, wetland, and upland vegetation suitable for the area at end of project construction to restore and enhance potential species habitat.

_____

John Luchetta
Office Chief, Central Region
Environmental Central Coast Office
California Department of Transportation

_____

Date

# Table of Contents

# List of Figures



# List of Tables

# Chapter 1 Proposed Project

## 1.1 Introduction

The California Department of Transportation (known as Caltrans), as assigned by the Federal Highway Administration (known as FHWA), is the lead agency under the National Environmental Policy Act (known as NEPA). Caltrans is the lead agency under the California Environmental Quality Act (known as CEQA).

### NEPA Assignment

California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. The Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), signed by President Barack Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding (known as MOU) pursuant to 23 U.S. Code 327 (NEPA Assignment Memoranda of Understanding) with the Federal Highway Administration. The NEPA Assignment MOU became effective October 1, 2012 and was renewed on December 23, 2016 for a term of five years. In summary, Caltrans continues to assume Federal Highway Administration responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, the Federal Highway Administration assigned, and Caltrans assumed all of the U.S. Department of Transportation Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance projects off of the State Highway System within the State of California, except for certain categorical exclusions that the Federal Highway Administration assigned to the Caltrans under the 23 U.S. Code 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

Caltrans proposes to replace the Santa Maria River Bridge (Bridge 49-0042) on State Route 1, just north of the city of Guadalupe, from post miles 50.3 to 50.6 in Santa Barbara County and from post miles 0.0 to 0.3 in San Luis Obispo County. The Santa Maria River Bridge crosses the county line between northern Santa Barbara County and southern San Luis Obispo County. The bridge is about 3 miles east of the Pacific Ocean.

The project location is shown in Figure 1-1, Project Vicinity Map. A more detailed look at the project area is shown in Figure 1-2, Project Location Map. Appendix A contains a preliminary layout of the proposed project.

**Figure 1-1 Project Vicinity Map**

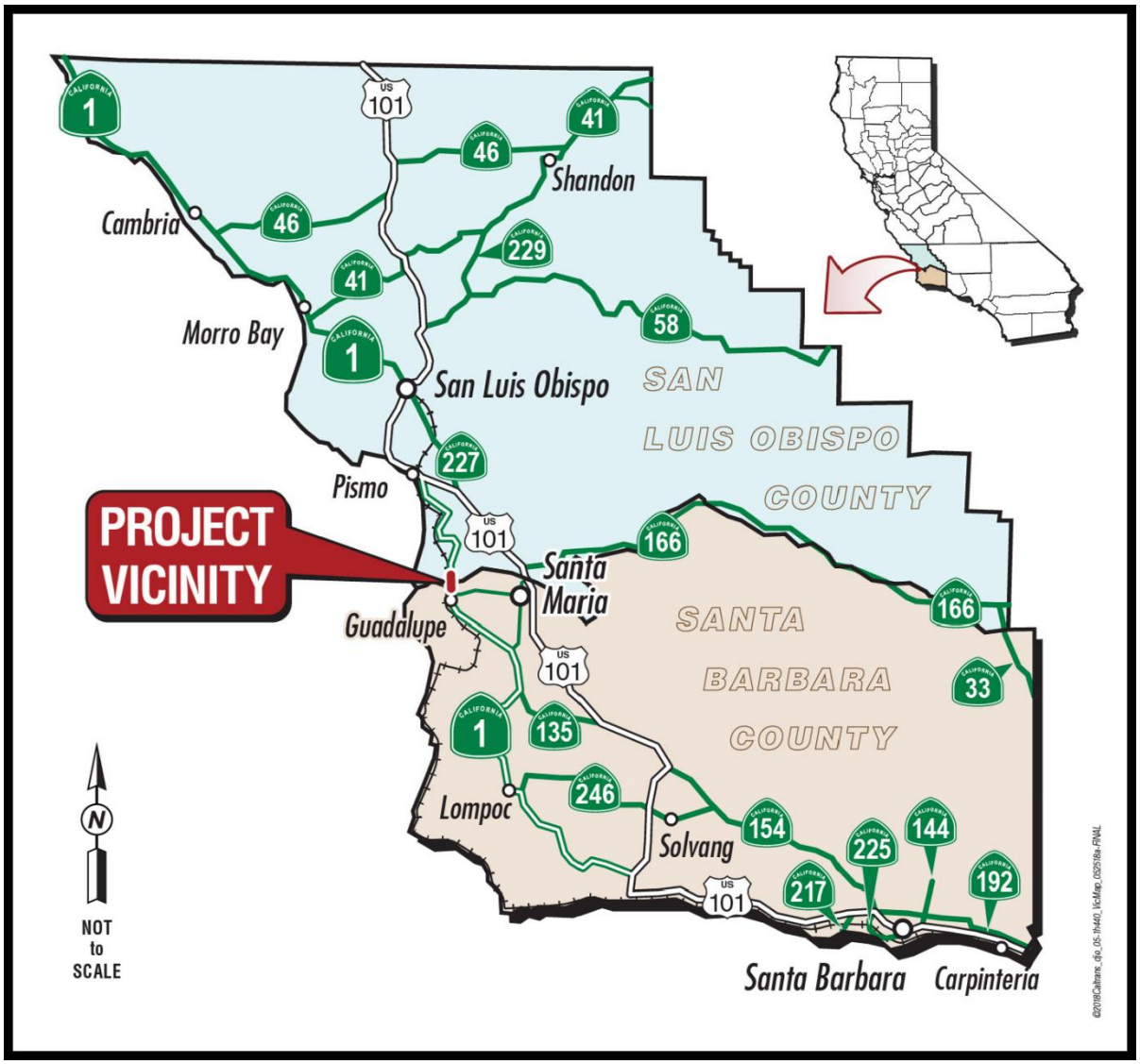
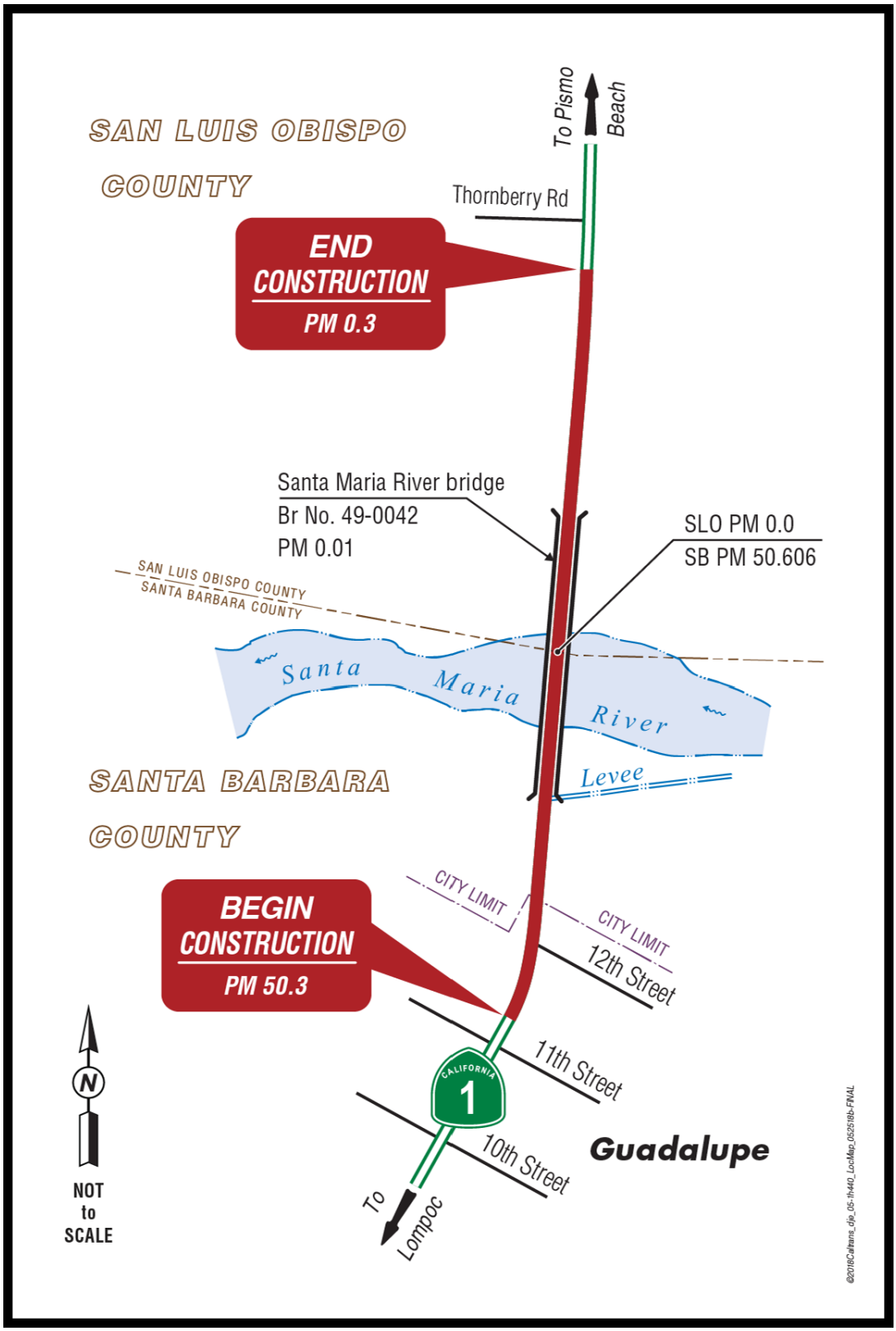


**Figure 1-2 Project Location Map**



The proposed project would be funded with 2018 State Highway Operation and Protection Program funds. The project is included in the San Luis Obispo Council of Governments' approved 2019 Federal Transportation Improvement Program. The project is also included in the Santa Barbara Association of Governments' approved Regional Transportation Plan (2017).

The current estimated cost of project construction is approximately $29,654,00 with an estimated escalated cost of approximately $33,179,000. Project construction is anticipated to begin in the 2022/2023 fiscal year. Project completion is anticipated for the 2025/2026 fiscal year. Project duration is anticipated to take approximately 530 working days, or 24 working months (typically 22 days per working month), requiring up to three construction seasons (typically occurring from June to October).

## 1.2 Purpose and Need

### 1.2.1 Purpose

The purpose of the proposed project is to restore the structural integrity of the Santa Maria River Bridge to ensure the serviceability of State Route 1 and to maintain safe, multimodal continuity between Santa Barbara County and San Luis Obispo County.

### 1.2.2 Need

The Santa Maria River Bridge was found to be scour critical and has a history of alkali-silica reactivity as documented in the Bridge Maintenance Fact Sheet. Based on the recommendations of the Bridge Maintenance Fact Sheet, Structure Replacement and Improvement Needs Report, and Bridge Inspection Reports, replacement of the Santa Maria River Bridge is required.

## 1.3 Project Description

Caltrans proposes to replace the entire existing Santa Maria River Bridge structure. Past bridge inspections have found multiple evidences of alkali-silica reactions and scour. Bridge inspections have confirmed the presence of alkali-silica reactions in the concrete of the bridge structure. The structural integrity of the bridge has begun to deteriorate due to the presence of alkali-silica reactions. Alkali-silica reactions are chemical reactions that causes concrete to swell and crack when exposed to moisture. The presence of alkali-silica reactions causes concrete to spall, exposing rebars and reduces the strength of concrete. Past bridge inspections have also found evidence of scouring at the piers and exposed pier foundations. The presence of alkali-silica reactions in the concrete increases the potential for scour on the bridge piers, foundations and abutments. The bridge has been determined to be a "Scour Critical Bridge" which is defined as a bridge that is predicted to fail under certain flood magnitudes, either from analysis or observation. In February 2017, a Bridge Maintenance Strategy meeting was held, and a Plan of Action was

developed, to address the issues on the existing bridge structure. The Plan of Action for the Santa Maria River Bridge initiated the implementation of corrective and preventive measures that included consistent monitoring of the bridge. The goal of the plan was for the replacement of the existing bridge, removing alkali-silica reactions from the structure and addressing the scour issue, in order to restore the reliability of State Route 1 access across the Santa Maria River.

The bridge was built in 1955 and was seismically retrofitted in 1998. The structure is approximately 1,200 feet long and approximately 34 feet wide. The bridge is made up of 24 spans and is supported by 23 pier walls. The bridge consists of two 12-foot lanes with one lane of travel in either direction, two 2-foot shoulders, two 2.5-foot curbs with concrete curb rails and metal bridge rails. There is no designated pedestrian path on the bridge.

The proposed project is located on the Santa Maria River, which is dry most of the year, consisting primarily of a sandy channel with mixed vegetation along its banks. Although the Santa Maria River bridge is dry for most of the year, the river does flow during heavy storm events or when operations at Twitchell Dam discharges water.

The area surrounding the project is considered rural, with a mix of mostly agricultural lands, some residential lands and some commercial lands.

The project is proposing a new wider bridge structure that will meet current Caltrans design standards and be capable of providing improved pedestrian and bicycle access across the bridge. New abutments and piers will be also constructed for the new bridge structure. In addition, project construction would also involve work associated with roadway paving, guardrail upgrades, sidewalk work and additional multimodal access.

The project will require permanent new right of way and temporary construction easements. Permanent new right of way would be located adjacent to existing Caltrans right of way. Temporary construction easements will be required for construction access. Vegetation and tree removal will be required to clear temporary access routes but will be limited to what is necessary for construction. Project demolition and construction activities within the river channel will be required. Temporary construction storage and staging are also required, but it is anticipated these will be placed outside of the river channel. It is anticipated that temporary and permanent utility relocation will be required as part of the project.

Temporary traffic management will be implemented in the project area during construction and temporary construction warning signs will be placed. During project construction, the speed limit in the project area will be temporarily reduced to 55 miles per hour during project construction.

In addition, the project will include Caltrans standard measures and plans that are typically include on all Caltrans projects. Caltrans standard measures and plans are considered features of the project and are evaluated as a component of the project.

Caltrans standard measures and plans are not implemented to address specific effects, impacts or circumstances associated with a project, but are instead implemented as a component of the project's design to address generic and typical issues often encountered in Caltrans projects. Caltrans standard measures and plans allow for little discretion regarding their implementation just as other Caltrans standard project requirements. Caltrans standard measures and plans typically includes, but is not limited to; Best Management Practices, Landscape Architecture Landscape Planting Plan, Biological Monitoring Plan, Cultural Monitoring Plan, Hazardous Waste Management, Transportation Management Plan, Caltrans Highway Design Manual, Caltrans Standard Specifications, Caltrans Standard Special Provision and Caltrans Non-Standard Special Provisions.

The proposed project will focus on addressing the project's purpose and need within the identified project limits. Affects that the project may have on the surrounding environment is discussed in Chapter 2.

## 1.4 Project Alternatives

Two alternatives are under consideration: a Build Alternative and a No-Build Alternative.

The alternatives that are under consideration were developed by an interdisciplinary team during the preliminary stages of the project to achieve the project purpose while avoiding or minimizing environmental impacts. Several criteria were taken into consideration when evaluating the various alternatives for the proposed project, including the project's purpose and need, cost, design, construction strategies and environmental impacts.

### 1.4.1 Build Alternatives

The Build Alternative, originally identified as Alternative 2 during preliminary stages of the project, would replace the existing Santa Maria River Bridge with a new wider bridge structure on a new alignment. The new bridge would be realigned approximately 34 feet east from the center line of the existing bridge. The new bridge deck would be thicker, and the elevation of the bridge deck would be raised by 2 feet. The new bridge would be approximately 1,300 feet long, consisting of 12 spans and 12 pier structures. Each pier structure will consist of three columns connected by a pier cap. New bridge abutment will be constructed to accommodate the new wider bridge structure. The new bridge would include two 12-foot-wide lanes with 8-foot-wide outside shoulders. The new bridge would also include an 8-foot-wide protected pathway on the southbound (west) side of the bridge for pedestrian and cyclist use. Standard traffic and pedestrian railings would be installed on the new bridge. The new bridge design will reduce the number of structural elements in the river and reduce the presence of human made elements in the river. The new bridge and project construction are not anticipated to alter the existing levee structure along the river.

The new bridge would be constructed in two stages. The first stage would construct the new northbound lane on a new alignment to the east of the existing bridge and remove the existing northbound lane after construction of the new northbound lane is complete. The second stage would construct the new southbound lane on a new alignment west of the new northbound lane and remove the remaining existing southbound lane after the new southbound lane is complete.

During project construction, both the northbound and southbound lanes will be maintained for traffic use. Traffic will be directed to use lanes on either the existing bridge or on the new bridge depending on which stage of construction the project is currently on. The existing roadway transitions north and south of the bridge structure will require pavement adjustments and restriping to fit the new bridge alignment.

This alternative will also involve installation of sidewalks, curbs and gutter adjustments, upgrade existing guardrails, install shoulder backing and add pedestrian crossings. The new bridge structure will be located within the existing state right of way, but additional state right of way will be required for the roadway adjustments at the north and south end of the bridge to tie in with the existing highway alignment. Partial property acquisition of adjacent properties is anticipated for this alternative.

The estimated cost of the new bridge structure is approximately $15,536,000. Project duration is anticipated to take approximately 530 working days or approximately 24 working months (typically 22 days per working month), required up to three construction seasons (typically occurring between June to October).

A preliminary design of the Build Alternative is presented in Appendix B.

The proposed Build Alternative will incorporate several Caltrans design standards and criteria that address concerns associated with, but not limited to: structural, seismic, hydraulic, maintenance, accessibility, operational, traffic, bicycle and pedestrian.

### 1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would leave the existing Santa Maria River Bridge in place as it is. Under the No-Build Alternative, no changes would be made to any component of the bridge, and the existing bridge is anticipated to continue to deteriorate. This alternative would not address the alkali-silica reactions, or the known scour issues identified in the existing bridge structure. These issues would continue to negatively affect the structural integrity of the bridge, which could potentially result in the loss of function and reliability of the State Route 1 corridor at this location.

Under the No-Build Alternative, none of the work that has been proposed as part of the project would be conducted. The No-Build alternative would not: improve

multimodal access on the bridge, upgrade existing bridge rails, install sidewalks, modify curbs and gutter, or modify existing utilities.

The No-Build Alternative would not result in project related impacts as no actions will be conducted.

## 1.5 Comparison of Alternatives

In the evaluation of the alternatives, the project's purpose and need, cost, and associated environmental impacts were considered.

The Build Alternative would satisfy the purpose of the project because it would address the structural issues identified on the existing Santa Maria River Bridge by replacing the existing bridge with a new bridge. The Build Alternative would satisfy the need of the project because it would remove all traces of alkali-silica reactions present in the existing bridge structure and remedy the potential critical scour issue that has been identified. The Build alternative will result in both permanent and temporary impacts to the environment. Permanent impact would be the result of the new bridge structure that is located on a new alignment and the additional right of way required to accommodate the new bridge alignment. However, permanent impacts would be mitigated for as part of the project. In addition, the new bridge structure would reduce the amount of human made elements in the river, which would be considered a permanent benefit to the environment. Temporary impacts would be the result of project construction activities, which would disturb vegetation, landscape and receptors in the project area. However, the project will limit and control temporary impacts to minimize potential project related disturbances. Although the Build Alternative would result in changes to the existing environmental resources, the analysis indicates that these changes would not be substantial and that the project would have the potential to result in improvements to existing biological resources. Chapter 2 in this document provides discussions regarding the proposed project's potential environmental impacts.

The No-Build Alternative would not satisfy the purpose or the need of the project because it would not address the structure issues identified on the existing Santa Maria River Bridge. The No-Build Alternative would not address the presence of alkali-silica reactivity in the existing bridge, would not address the potential scour issue and would not ensure the continued function and reliability of this link in the California transportation system. Under the No-Build Alternative, there would be no permanent or temporary impacts as no work or disturbance would occur. The No-Build Alternative would not modify or change the existing condition.

## 1.6 Alternatives Considered but Eliminated from Further Discussion

During the early stages of project development, several potential alternatives were studied by the project team through an interdisciplinary approach. Three build alternatives (Alternatives 1, 2, and 3) were originally considered during early preliminary project development. Due to the overall issues of the existing bridge, the project team determined that the current Build Alternative, originally identified as Alternative 2, was the most prudent alternative. Alternatives 1 and 3 were eliminated early the project development process before preparation of the draft environmental document. A description of each alternative and the reason for its elimination from further consideration are provided below.

### 1.6.1 Alternative 1

Alternative 1 proposed to rehabilitate the existing Santa Maria River Bridge. Rehabilitation of the existing bridge would have involved replacing the existing girders and bridge rails along with modifying the pier walls as necessary to accommodate a new superstructure. The new bridge work would have involved widening the bridge deck, extending the pier walls and installing new bridge spans. The new structure would also include upgrading the guardrails/bridge rails and installing a pathway. The new bridge would have shifted approximately 15 feet eastward. Construction of the new bridge would have been conducted in stages, and one-way traffic control would have been required to allow for traffic to pass through the project site.

Although this alternative would have addressed the existing issues on the superstructure, it would not entirely address the presence of alkali-silica reactivity in the concrete piers or the critical scour issues. This alternative was found not to be a prudent solution for addressing the issues affecting the bridge. In addition, it was anticipated that one-way traffic control required during bridge construction had the potential to adversely impact traffic in the area. Because of the amount of anticipated daily traffic on State Route 1 at the project location, implementation of one-way traffic control could create substantial traffic back-up and other traffic issues for travelers. And because there are no feasible detours for travelers to bypass the bridge construction, it was anticipated that backed-up traffic and other traffic issues had the potential to impact local traffic in and around the city of Guadalupe, which in addition could potentially impact the traveling public and the movement of goods in the region.

During the early stages of project development and project investigations, it was determined that Alternative 1 was not anticipated to be capable of meeting the purpose or need of the project. In addition, Alternative 1 had a high potential to result in significant impacts to traffic and the community during project construction. Therefore, Alternative 1 was rejected and eliminated from further consideration, investigation or discussion.

### 1.6.2 Alternative 3

Alternative 3 proposed to replace the entire existing Santa Maria River Bridge on the same alignment. This alternative would have removed all of the existing structure and replaced it with an entirely new structure. The new bridge structure would have a wider bridge deck, longer bridge spans and new pier structures. The number of pier structures in the river would be reduced to 12. The new bridge would also include new guardrails/bridge rails and a pathway. The new bridge would have shifted approximately 15 feet eastward. Construction of the bridge would have been conducted in stages, and one-way traffic control would be required to allow traffic to pass through the project site.

Although this alternative would have addressed all of the structural issues and restore the structural integrity of the bridge, there was a concern with the construction method. Reconstructing the bridge on the same alignment would require demolition and construction activities to occur in essentially the same location simultaneously. This alternative would have required strict one-way traffic control to keep the traveling public safe from construction activities. It was anticipated that one-way traffic control would require installation of temporary signals at locations north and south of the bridge.

Because of the amount of anticipated daily traffic on State Route 1 at the project location, using one-way traffic control would have resulted in potentially adverse impacts to traffic and travelers. Because of the amount of anticipated daily traffic on State Route 1 at the project location, implementation of one-way traffic control could result in substantial traffic back-up and disturbance of surround traffic. And because there were no feasible detours for travelers to bypass the bridge construction, it was anticipated that backed-up traffic and other traffic issues had the potential to impact the traffic in the city of Guadalupe and potentially impact the traveling public and the movement of goods in the region.

During the early stages of project development and project investigations, it was determined that Alternative 3 had the potential to satisfy the purpose and need of the project. However, Alternative 3 had a high potential to result in long term significant impacts to traffic and regional transportation as a result of long-term highway closure at the bridge location. Therefore, Alternative 3 was rejected and eliminated from further consideration, investigation or discussion.

## 1.7 Permits and Approvals Needed

The following permits, licenses, certifications and/or agreements are expected to be required for this project prior to construction:

- U.S. Army Corps of Engineers – Section 404 Nationwide Permit for impacts to Waters of the U.S.

- U.S. Army Corps of Engineers – Section 408 Alteration of Civil Works Permit for alteration to existing U.S. Army Corps of Engineers public works project
- U.S. Fish and Wildlife Service – Section 7 consultation for threatened and endangered species review
- National Marine Fisheries Service – Section 7 consultation for threatened and endangered species review
- Regional Water Quality Control Board – Section 401 Certification for impacts to Waters of the U.S.
- California Department of Fish and Wildlife – Section 1602 Streambed Alteration Agreement for impacts to streams under jurisdiction
- California Transportation Commission – Project Funding Approval

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

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

- **Land Use:** The bridge replacement is not anticipated to change or affect existing and future land use in the area and would be consistent with existing state, regional, and local plans and programs. The project would require minor property acquisition from farmlands anticipated to be in possession of Williamson Act contract located adjacent to highway to accommodate roadway realignment, as detailed in Section 2.1.1, Farmland.

- **Coastal Zone:** Based on California Coastal Commission coastal zone maps, the project is outside of the coastal zone. No impacts to coastal resources would occur.

- **Wild and Scenic Rivers:** There are no wild and scenic rivers in or adjacent to the study area according to the Wild and Scenic River System list that is maintained by the National Park Service. Therefore, no impacts to wild and scenic rivers would occur.

- **Parks, Recreational Facilities and Section 4(f) Resources:** Le Roy Park is about 300 feet west of the project area. The project may result in temporary indirect impacts to Le Roy Park as a result of construction activities and is further discussed in Section 2.4, Construction Impacts. However, the project is not anticipated to result in permanent impacts to any parks or recreational facilities in the vicinity. No Section 4(f) resources were identified within 0.5 mile of the project area.

- **Timberland:** The project site is not within, adjacent to, or in the vicinity of any timberland, nor would it impede access to existing timberland. Therefore, there would be no effect on timberlands.

- **Growth:** The project would replace an existing bridge on an existing highway corridor and would not create new access to previously non-accessible areas. The project will not add new travel lanes on the bridge. The project is not anticipated to alter existing or future predicted traffic patterns. The project would not alter existing or future planned development in the vicinity or in the region. A potential future project in the region is the continuation of the Santa Maria River

Levee Trail from the city of Santa Maria to State Route 1. The continuation of the Santa Maria River Levee Trail is being proposed by the Santa Barbara County Associated of Government, the city of Santa Maria and the city of Guadalupe. At this time, there are no project related documentations available to analyze potential effects the proposed trail continuation might have on the proposed bridge replacement project. Once project related documents are prepared for the proposed trail continuation, further analysis can be conducted. However, it is anticipated that the future trail continuation would connect to State Route 1, which is designated as a Pacific Coast Bike Route, near the Santa Maria River bridge. The proposed bridge replacement project is not anticipated to preclude any future development for the Santa Maria River Levee Trail. Instead, the proposed bridge replacement project would be in support with the addition of the separated pathway on the new bridge structure.

- **Community Impacts:** The project would install a separated pathway on the new bridge structure to improve pedestrian access across the new bridge. The new bridge would also include standard travel lanes and shoulders, which would provide improved conditions for cyclists on the bridge. The new bridge is anticipated to improve public access along this segment of State Route 1. In addition, the project will fill gaps in existing sidewalks leading up to the new bridge. The project is not expected to negatively affect growth, development or quality of living in the area. The project may result in temporary impacts to community resources as a result of project construction and is further discussed in Section 2.4, Construction Impacts.

- **Paleontology:** The project would not encounter paleontological resources because all work would take place on the bridge and roadway and in recent river deposits. (Paleontology Review, July 26, 2018)

- **Hazardous Waste and Materials:** The project has a low potential of encountering or disturbing hazardous materials. The project is not near any known hazardous sites. Project activities may disturb potentially hazardous materials typically found within the existing bridge or roadway. The project would incorporate Caltrans standard practices to test for and control potentially hazardous materials that may be encountered during the project construction process. The project is not expected to result in adverse effects as a result of encountering, disturbing, or transporting hazardous materials. (Hazardous Waste Memo, March 9, 2018)

- **Energy:** The proposed project will not increase existing capacity on the highway or on the bridge and is unlikely to alter existing energy consumption during operation. The project will include a separated multimodal path that could be utilized by pedestrians and cyclist, which would encourage alternative modes of transportation use and potentially reduce fuel usage. The proposed project would not result in any permanent new demand for energy consumption. Energy use during project construction would be temporary and construction activities would

implement methods and procedures that would help conserve energy, such as, but not limited to: using recycled materials or shutting of idling equipment.

- **Hydrology:** Although the Santa Maria River has a base flood (100-year flood) rate of 118,000 cubic feet per second, the river does not flow most of the year and, in some years, does not flow at all. Water flow within the Santa Maria River is controlled by operations at Twitchell Dam, upstream from the project location. The river's maximum recorded discharge is not near the 100-year flow rate. Also, there are no records of flooding issues related to the bridge. The project is not anticipated to alter the overall hydraulic characteristics of Santa Maria River or constitute a significant floodplain encroachment as defined in Section 650.105q of the Code of Federal Regulations 23. A Federal Emergency Management Agency (known as FEMA) Flood Insurance Rate Map of the project area is shown in Appendix C. (Location Hydraulic Study, January 10, 2019)

- **Wildfire:** Based on available fire hazard maps from San Luis Obispo County and Santa Barbara County, the project is not within a wildfire hazard zone. The project is surrounded by unincorporated farmland in San Luis Obispo County and a mix of urban and agricultural areas in Santa Barbara County. The project is in an area that is not prone to wildfires. The project would incorporate precautions to prevent fire incidents during construction as part of the code of safe practices in accordance with California Division of Occupational Safety and Health – Fire Protection and Prevention Guidance.

# 2.1 Human Environment

## 2.1.1 Farmland

### *Regulatory Setting*

The National Environmental Policy Act and the Farmland Protection Policy Act (Farmland Protection Policy Act, 7 U.S. Code 4201-4209; and its regulations, 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

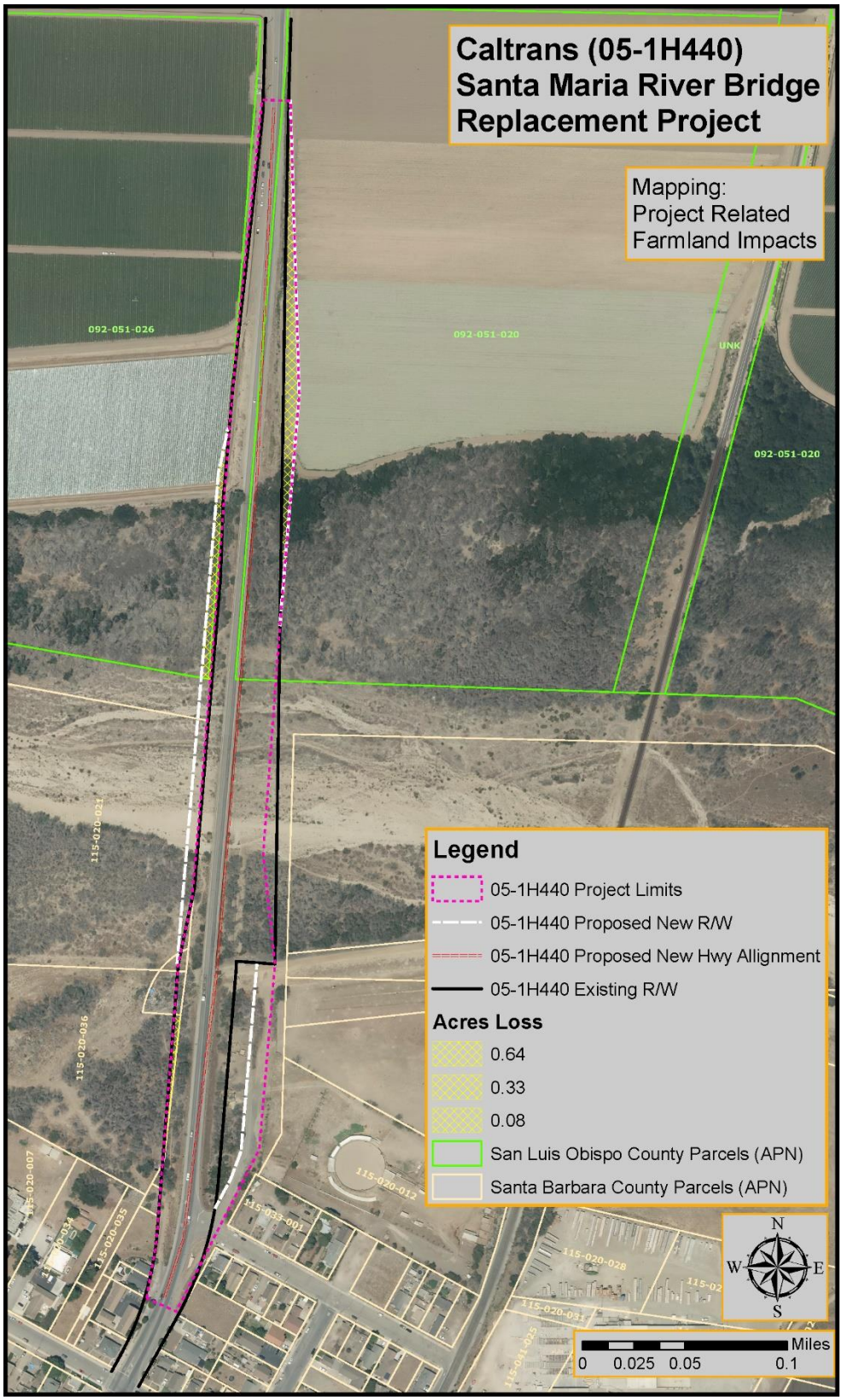
The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

### *Affected Environment*

This section is based on the Farmland Assessment Memo that was completed for the project on April 17, 2019. Assessor's Parcel Numbers are used to identify properties in this section.

The project is in a rural setting in northern Santa Barbara County and southern San Luis Obispo County. A review of public land use data for San Luis Obispo County and Santa Barbara County identified agricultural land uses next to the project site. In Santa Barbara County, land uses surrounding the project area are mixed, identified as either vacant, agricultural, or residential. Within the project footprint, Assessor's Parcel Number 115-020-036 is identified as a farmland property in Santa Barbara County. In San Luis Obispo County, the land use surrounding the project site is identified as agricultural, which includes two farmland properties within the project footprint: Assessor's Parcel Number 092-051-020 and Assessor's Parcel Number 092-051-026. Both farmland properties in San Luis Obispo County is within the Oso Flaco Agricultural Preserve and are anticipated to be under Williamson Act contract. Figure 2-1 shows the farmlands within the project area.

## Figure 2-1 Farmland Acquisition for the Project



### *Environmental Consequences*

The proposed project or project related construction activities are not anticipated to prevent the continuation of existing farmland activities in the area. However, construction activities may temporarily generate dust that could be carried by the wind and settle on nearby farms.

The proposed project will require shifting the existing Route 1 and will require the expansion of the existing state right-of-way in the project area. The project will require partial property acquisition from three adjacent properties currently identified for farmland use.

The following information summarizes the anticipated partial acquisition that would be required from each farmland property as part of the project:

- Assessor's Parcel Number 115-020-036, approximately 0.08 acre
- Assessor's Parcel Number 092-051-020, approximately 0.64 acre
- Assessor's Parcel Number 092-051-026, approximately 0.33 acre

*Santa Barbara County*

Within Santa Barbara County, it is anticipated that the proposed project will require partial acquisition of approximately 0.08 acre from Assessor's Parcel Number 115-020-036 that is approximately 15.0 acres in size. The acquisition of approximately 0.08 acres required for the project would result in the loss of approximately 0.53 percent of farmable land from the property. It is anticipated that the proposed project's required partial acquisition of Assessor's Parcel Number 115-020-036 will not prevent the continuation of agricultural practice on the property. Assessor's Parcel Number 115-020-036 is not under Williamson Act contract.

*San Luis Obispo County*

The project will require partial property acquisition from two adjacent farmland properties within San Luis Obispo County, identified as Assessor's Parcel Number 092-051-020 on the east side of State Route 1 and Assessor's Parcel Number 092-051-026 on the west side of State Route 1.

It is anticipated that the proposed project will require partial property acquisition of approximately 0.64 acre out of approximately 282 acres from Assessor's Parcel Number 092-051-020. The required partial acquisition will result in the loss of approximately 0.23 percent of farmable land from the farmland property.

It is anticipated that the proposed project will require partial property acquisition of approximately 0.33 acre out of approximately 308 acres from Assessor's Parcel Number 092-051-026. The required partial acquisition will result in the loss of approximately 0.11 percent of farmable land from the farmland property.

The project is anticipated to require partial property acquisition totaling approximately 0.97 out of approximately 590 total acres shared between two farmland properties. The project would result in the loss of approximately 0.34 percent of farmable land in San Luis Obispo County. It is anticipated that the proposed project's required partial acquisition from Assessor's Parcel Number 092-051-020 and Assessor's Parcel Number 092-051-026 will not prevent the continuation of agricultural practice on the properties.

Both Assessor's Parcel Number 092-051-020 and Assessor's Parcel Number 092-051-026 are within the Oso Flaco Agricultural Preserve and are anticipated to be under Williamson Act contract.

*Williamson Act Land*

The project would acquire portions of property that are anticipated to be under Williamson Act contract. The following criteria must be met to permit the project to affect Williamson Act land:

> *The Williamson Act, California Government Code Section 51292, prohibits a public agency from acquiring farmland within an agricultural preserve unless the following are made:*
>
> *a) The location is not based primarily on a consideration of the lower cost of acquiring land in an agricultural preserve.*
>
> *b) If the land is an agricultural land covered under a Williamson Act contract, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement.*

Regarding criterion (a), the proposed Build Alternative and the alternatives considered but eliminated from further discussion had similar project limits, structure design, estimated project cost, potential impacts and project location.

The existing bridge structure is nearly surrounded by farmland properties and is adjacent to an agricultural preserve. There were little options to place the new bridge structure in order to remain connected with Route 1. Therefore, cost was not a factor in considering the location of the project.

Regarding criterion (b), the existing State Route 1 system runs directly through the Oso Flaco Agricultural Preserve, and the project proposed Route 1 alignment was designed to best fit within the existing Caltrans right-of-way. The project proposed Route 1 alignment would follow a past alignment of State Route 1 that had been removed when the existing bridge was constructed. The project was based on a reasonably direct route with logical termini to fulfill the project's purpose and need. Therefore, no other land within or outside the preserve offers a reasonably feasible place for the project proposed Route 1 shift that would allow for connection with the remaining Route 1 system.

Because the project meets the necessary criteria allowing for acquisition of Williamson Act-protected farmland, the project can acquire the Williamson Act-protected farmland.

The project would result in the acquisition of approximately 0.97 acre of farmland anticipated to be under Williamson Act contract, shared between Assessor's Parcel Number 092-051-020 and Assessor's Parcel Number 092-051-026. It is anticipated that the partial acquisition would not prevent the existing farmland properties from continuing their agricultural activities or from maintaining their existing Williamson Act contract. Though the project would result in the minor acquisition of farmland, the project would not adversely affect farmlands or farmlands under Williamson Act contract. The project would comply with the California Environmental Quality Act guidelines because it would not result in the cancellation of Williamson Act contract for parcels exceeding 100 acres.

### *Avoidance, Minimization, and/or Mitigation Measures*

Adequate compensation would be provided for property acquisition, including relocation assistance for residents and businesses as required by law. Caltrans right-of-way agents would work with affected property owners to address issues of concern and compensation for their property's fair market value and any temporary loss of production due to the project.

Projects under Williamson Act contract will need to comply with all conditions of the act including, but not limited to, the following:

- *California Government Code Section 51291(c):* When land in an agricultural preserve is acquired by a public entity, the public entity will notify the Director of Conservation within 10 working days. The notice will include a general explanation of the decision and the findings made pursuant to Section 51292.

- *California Government Code Section 51291(d):* If, after giving the notice required under subdivision (c) and before the project is completed within an agricultural preserve, the public agency or person proposes any significant change in the public improvement, it will give notice of the changes to the Director of Conservation and the local governing body responsible for the administration of the preserve. Within 30 days thereafter, the Director of Conservation and the local governing body may forward to the public agency or person their comments with respect to the effect of the change to the public improvement on the land within the preserve and the compliance of the changed public improvements with this article. Those comments will be considered by the public agency or person, if available within the time limits set by this subdivision.

The following avoidance and minimization measures would be implemented to address potential impacts on farmland resources:

1) The proposed project will limit the amount of right-of-way acquisition from adjacent farmland properties and acquire right-of-way only necessary for project completion.

2) To the extent possible, construction-related storage, staging, and access will avoid properties currently involved in agricultural activities or properties identified as prime farmland.

3) Infill materials to be used in the proposed project will not be obtained from borrow sites composed of prime farmland.

4) Areas adjacent to farmland properties disturbed during construction will be re-stabilized using native vegetation and soils clear of invasive plants species at end of construction. Soils amendments, if used, must comply with the requirements of the California Food and Agricultural Code. Soil amendment must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.

5) The construction contract will include provisions to protect against the spread of invasive species.

6) When selecting sites for other project-related mitigations (e.g., wetland restoration, replanting, etc.), the project will avoid prime farmland to the extent possible.

7) Construction activities will be coordinated with local farmland operators to ensure that access to adjacent farmland properties is maintained during project construction.

8) Appropriate measures pertaining to dust control will be implemented during project construction.

### 2.1.2 Utilities and Emergency Services

#### *Affected Environment*

*Utilities*

Overhead utility lines and utility poles, which provide electrical service, are next to the existing bridge on the western and eastern sides. The utility lines cross over Santa Maria River between two utility poles on the western side and two utility poles on the eastern side. There are no utility poles within the riverbed or within the existing bridge structure. North of the bridge, the utility lines on the western side continue to run parallel above State Route 1; the utility lines on the eastern side are underground. South of the bridge, both the western and eastern utility lines are underground before entering the limits of the city of Guadalupe.

*Emergency Services*

Emergency services in the project vicinity are provided by the Guadalupe Fire Department, the Guadalupe Police Department, and the California Highway Patrol. The Guadalupe Fire Department at 918 Obispo Street in Guadalupe is about 0.3 mile southeast of the project site. The Guadalupe Police Department at 4490 10th Street in Guadalupe is about 0.3 mile southeast of the project site. The nearest California Highway Patrol office is about 10 miles east of the project area in the city of Santa Maria.

### *Environmental Consequences*

*Utilities*

The project would relocate utilities for the realignment of the existing highway. The aboveground utility lines east of the existing bridge will be relocated prior to construction. Underground utility lines east of the existing State Route 1 may require relocation based on their location relative to the proposed new roadway alignment. Utility location verification would be conducted prior to construction. It is anticipated that utilities in conflict with the new roadway alignment would need to be relocated within the project limits.

*Emergency Services*

Construction staging, and activities could result in temporary and intermittent delays to emergency responders that require access through the project site.

During project construction, emergency services might require access through the project site and the bridge structure for emergency response. Access through the project site and the bridge would be maintained during construction, with two lanes available for traffic use. The need for any temporary lane closures during construction would be communicated to the appropriate emergency service agency. In addition, a Traffic Management Plan would be implemented to inform, guide, and assist emergency responders to ensure continuation of adequate service and minimize potential response time delays.

### *Avoidance, Minimization, and/or Mitigation Measures*

The following avoidance and minimization measures have been incorporated in the project to address the potential temporary adverse effects of project construction on utility services and emergency services:

*Utilities*

1) Temporarily relocated utilities will remain in operation during project construction.

2) Prior to utility relocation activities, coordination with utility users will be required, to inform utility users about the date and timing of potential service disruptions.

3) The Caltrans Right of Way Manual and the Federal Utility Relocation and Accommodation on Federal-Aid Highway Projects Program Guide will be used to process utility relocations.

*Emergency Services*

4) The Caltrans resident engineer assigned to the project will regularly coordinate with local emergency responders on project activities that could potentially affect emergency response times.

5) A Transportation Management Plan will be adopted that would allow for emergency service vehicles to access the project site during construction to ensure that any response delays are minimal.

### 2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities

#### *Regulatory Setting*

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the U.S. Department of Transportation regulations (49 Code of Federal Regulations 27) implementing Section 504 of the Rehabilitation Act (29 U.S. Code 794). The Federal Highway Administration has enacted regulations for the implementation of the 1990 Americans with Disabilities Act, including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the Americans with Disabilities Act requirements to federal-aid projects, including Transportation Enhancement Activities.

#### *Affected Environment*

The existing bridge consists of two 12-foot lanes, two 2-foot shoulders, and two 32-inch-wide curbs supporting metal bridge rails. While there are no designated sidewalks or cycling lanes within the project limits, pedestrians and cyclists use the bridge to travel along State Route 1.

State Route 1 and the Santa Maria River Bridge provide the main access for residents, workers, businesses, and industries in the surrounding region. The nearest river crossing is Bonita School Road, about 3.5 miles east of the project site. Bonita School Road is a partially paved roadway that runs across the riverbed. State

Route 1 also intersects with State Route 166, which connects the city of Guadalupe to the city of Santa Maria to the east.

An Amtrak passenger rail line is about 1,000 feet east of the project limits, and an Amtrak station is in the city of Guadalupe about a mile south of the project limits. Available parking in industrial and commercial areas is typically provided in designated parking lots. On-street parking is also available throughout the city and is especially the case within residential areas.

The city of Guadalupe provides the Guadalupe Flyer transit bus within the city limits. The service also connects to the city of Santa Maria. The Guadalupe Flyer does not have any transit routes within the project limits or on State Route 1.

### *Environmental Consequences*

The project could result in delays to vehicle, cyclist, and pedestrian travel during construction. However, traffic control will be used to ensure that State Route 1 and the Santa Maria River Bridge would remain open to vehicles, cyclists and pedestrians during construction, minimizing potential delays to travelers.

The new bridge will include 12-foot travel lanes with 8-foot shoulders, concrete barriers with bicycle rails and an 8-foot pathway that would allow for pedestrian and cyclist use. The new 8-foot shoulders would provide access for cyclist and emergency stops. The new 8-foot pathway would provide pedestrian and cyclist access that is separated from traffic. It is anticipated that the new bridge structure would provide improved access for vehicle, cyclist and pedestrians traveling on State Route 1 and crossing on the bridge.

### *Avoidance, Minimization, and/or Mitigation Measures*

The following avoidance and minimization measures would be implemented for the project:

1) Traffic control will be used to ensure continued public access on State Route 1 during project construction.

2) The project will include Caltrans Standard Specifications and Caltrans Standard Special Provisions to address potential traffic issues resulting from project construction and to provide potential traffic management strategies during construction.

## 2.1.4 Visual/Aesthetics

### *Regulatory Setting*

The National Environmental Policy Act, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 U.S. Code 4331[b][2]). To further emphasize this point, the Federal Highway Administration, in its implementation of the National Environmental Policy Act (23 U.S. Code 109[h]),

directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities" (California Public Resources Code Section 21001[b]).

California Streets and Highway Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycle water when feasible and incorporate native wildflowers and native and climate appropriate vegetation into the planting design when appropriate.

### *Affected Environment*

This section is based on the Visual Impact Assessment that was completed for the project on March 15, 2019.

State Route 1 within San Luis Obispo and northern Santa Barbara counties is generally a north-south-oriented highway that follows the coastline along the Pacific Ocean. The project is about 3 miles east of the Pacific Ocean. Within the project limits, the highway is classified as a two-lane conventional highway and as a rural major arterial roadway.

Within the project limits, land use is mostly agricultural. The city of Guadalupe sits along State Route 1, just south of the project, at the mouth of the Santa Maria Valley. The city of Guadalupe is defined by its central business district along State Route 1, with residential neighborhoods extending to the east and west, surrounded by agricultural land. State Route 1, which passes through the center of town, serves as the city's main street. The largest cities serving the region are Arroyo Grande to the north and Santa Maria to the east.

The region has a generally rural visual character. Agriculture, open space and recreation, larger-lot residences, and varied industries make up much of the land use. Several planned residential subdivisions have been constructed north and south of the project site and are continuing to be developed, resulting in an incremental effect on the rural appearance of the region. Though the region is becoming more suburbanized, the area still maintains much of its rural character, due in large part to the abundant cropland, open space, riparian areas, and dunes.

The landscape surrounding the region is mostly flat with some hills to the north and south. The regional landscape can be broadly defined as an old marine terrace following the Santa Maria River to the Pacific Ocean. Much of the region is made of sand dune complexes along the beach that transition to wide mesas inland. The coastal dune complex, which extends from the shoreline to as far as about 2 miles inland, is among the largest of its type in California. Creeks and drainages in the region generally have an east-west orientation on their way to the ocean. The native

landscape of the inland portions of the region include coast live oak woodland, chaparral, and grasslands, with healthy riparian corridors along the Santa Maria River, creeks, and drainage ways.

Specialized plant communities are found along the coastline and into the dune complex. Eucalyptus trees were introduced into the area as a forest crop and have since become established over much of the Nipomo Mesa to the north. The large stature of eucalyptus groves creates a dominant visual element throughout much of the inland area. The region also includes portions of the Santa Maria Valley to the east, consisting of broad, flat agricultural croplands.

*Scenic Vistas and Resources*

Scenic vistas in the project vicinity include views of the Santa Maria River riverbed and riparian corridor, distant views of the mountains to the south and northeast, and the dunes to the west. From the project site, the Santa Maria River is the most visually dominant scenic element because of how close it is to the highway. The inland hills also contribute to the scenic vista, but are less visually dominant because of intervening vegetation, topography, and viewing distance. The existing overhead utilities paralleling the bridge detract from the scenic vista and add visual clutter to the views.

*Visual Character of the Site and Its Surroundings*

The existing visual character of the project area is based mostly on its proximity to the Santa Maria River and the surrounding agricultural land. The developed community of Guadalupe and the highway itself also contribute to the overall character of the site and its surroundings.

Although the existing Santa Maria River Bridge is a dominant visual element in the immediate project vicinity, it is not a particularly memorable or architecturally unique structure. The existing bridge rail does, however, contribute to the rural visual character of the setting in terms of its age, open appearance, rail-and-picket style, and materials.

### *Environmental Consequences*

As seen from State Route 1, the main public viewpoint, the project would affect views for a relatively short duration. With the new bridge constructed, the riverbed and distant hills would remain visible and the scenic vista would remain intact. The proposed taller bridge rail and pathway railing would have minimal effect on views of the scenic vista in the area.

The new bridge deck profile would be slightly raised, allowing for a higher vantage point for views of the surrounding landscape. However, this higher vantage point would also result in overhead utility wires being more directly in view and interfering with the quality of the scenic vista.

Because State Route 1 is not classified as an Officially Designated State Scenic Highway within the project limits, there would be no damages to scenic resources along a state scenic highway.

Proposed project elements above the bridge deck, such as barrier and railing, would be readily visible from the highway. By themselves, these types of elements are not uncommon and would not be seen as unexpected visual elements in a highway setting. However, the new pathway—with its additional concrete barrier, pedestrian fencing, and bicycle railing—would be a new, somewhat unique visual element along the highway corridor. The new barrier and railing would be taller than the existing barrier; when seen with the wider road shoulders and pathway, the new barrier would increase the visual scale and engineered appearance of the structure. In addition, the new configuration and additional hardware would create a more utilitarian appearance and would add a degree of visual clutter to the setting. As a result, these visual changes would cause a minor reduction of rural character and visual quality to the immediate project area.

Though existing riparian trees and other plants would be removed by the project, any vegetation removed would be fully replaced and established. As a result, the riverbanks would, over time, be fully revegetated and result in a somewhat natural appearing visual condition. Construction access roads and areas of demolition, if restored to natural-appearing landforms, would reduce the noticeability of disturbance and engineered alterations.

The project would not introduce new lighting or sources of glare and would therefore have no effect on daytime or nighttime views.

### *Avoidance, Minimization, and/or Mitigation Measures*

The project would implement the following avoidance and minimization measures to ensure the project's consistency with the aesthetic and visual resource protection goals along State Route 1:

1) The type and appearance of all new bridge rail, bicycle railing and pedestrian railing will be determined in consultation with the city of Guadalupe. Open-type bridge and pathway railing will be considered in consultation with the City.

2) All existing overhead utilities adjacent to the new bridge will be either placed in the bridge structure, attached to the bridge in the least visible way, and/or placed underground.

3) All wing walls, retaining walls, and slope paving, if required, will be treated with a rough texture such as "rip-out" or other to discourage graffiti.

4) Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques that save the most existing vegetation possible should be used.

5) Revegetate all areas disturbed by the project with appropriate native plant species.

6) Following construction, re-grade and re-contour all new construction access roads, demolition areas, staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

### 2.1.5 Cultural Resources

#### *Regulatory Setting*

The term “cultural resources,” as used in this document, refers to the “built environment” (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA’s responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term “tribal cultural resources” to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California

Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way.

### *Affected Environment*

Discussion of this section is based on the Cultural Resource Review that was completed for this project on October 4, 2018 and the Cultural Resource Revalidation that was completed for this project on September 23, 2019.

Letters were sent out to the regional Native American tribal groups as part of Section 106 consultation and formal notification under AB-52 on December 19, 2018.

The project is located in an area that has been highly disturbed due to past development projects and ongoing agricultural activities. A review of cultural resource documentation on State file revealed that the project area had previously been surveyed during past projects and no cultural resources were identified. A field survey was conducted in the project area, which confirmed the substantial level of disturbance, and suggests a low probability for intact subsurface cultural deposits.

The existing Santa Maria River Bridge was determined to be a Category 5 bridge in the Caltrans Statewide Historic Bridge Inventory, which is not eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. The bridge is not considered a historic resource for the purposed of the California Environmental Quality Act. There are no other historic-period build-environment resources within the project limits to potentially effect.

### *Environmental Consequences*

Invitation for consultation as part of Section 106 was offered and no formal consultation have been requested by recipients.

The propose project does not have the potential to affect cultural resources directly or indirectly within the project limits.

### *Avoidance, Minimization, and/or Mitigation Measures*

No cultural related measures are required for the proposed project as no cultural resources are anticipated to be affected by the project.

The project will include the following Caltrans standard provisions dealing with the chance discovery of previously unknown cultural materials or human remains during project construction:

- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

- If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, who, pursuant to Public Resource Code Section 5097.98, will then notify the Most Likely Descendent. At this time, the person who discovered the remains will contact District 5 Environmental Branch so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Additional provisions of Public Resource Code 5097.98 are to be followed as applicable.

## 2.2 Physical Environment

### 2.2.1 Water Quality and Storm Water Runoff

#### *Regulatory Setting*

*Federal Requirements: Clean Water Act*

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States from any point source unlawful unless the discharge complies with a National Pollutant Discharge Elimination System permit. This act and its amendments are known today as the Clean Water Act. Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the National Pollutant Discharge Elimination System permit scheme. The following are important Clean Water Act sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).

- Section 402 establishes the National Pollutant Discharge Elimination System, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the United States. Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems.
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers.

The goal of the Clean Water Act is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

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

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the U.S. Army Corps of Engineer's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with the U.S. Environmental Protection Agency's Section 404 (b)(1) Guidelines (40 Code of Federal Regulations Part 230), and whether the permit approval is in the public interest.

The Section 404(b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers and allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if there is no practicable alternative that would have less adverse effects. The guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on waters of the United States and not have any other significant adverse environmental consequences. According to the guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order.

The guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the United States. In addition, every permit from the U.S. Army Corps of Engineers, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 Code of Federal Regulations 320.4. A discussion of the least environmentally damaging practicable alternative determination, if any, for the document is included in Section 2.3.2, Wetlands and Other Waters.

### *State Requirements: Porter-Cologne Water Quality Control Act*

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the Clean Water Act and regulates discharges to waters of the state. Waters of the state include more than just waters of the United States, like groundwater and surface waters not considered waters of the United States. Also, it prohibits discharges of "waste" as defined, and this definition is broader than the Clean Water Act definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable Regional Water Quality Control Board Basin Plan. In California, Regional Water Quality Control Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the State Water Resources Control Board identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with Clean Water Act Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (National Pollutant Discharge Elimination System permits or Water Discharge Requirements), the Clean Water Act requires the establishment of Total Maximum Daily Loads. Total Maximum Daily Loads specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### *State Water Resources Control Board and Regional Water Quality Control Boards*

The State Water Resources Control Board administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, Total Maximum Daily Loads, and National Pollutant Discharge Elimination System permits. Regional Water Quality Control Boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

### *National Pollutant Discharge Elimination System Program*

#### *Municipal Separate Storm Sewer Systems*

Section 402(p) of the Clean Water Act requires the issuance of National Pollutant Discharge Elimination System permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems. A Municipal Separate Storm

Sewer System is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water.” The State Water Resources Control Board has identified Caltrans as an owner/operator of a Municipal Separate Storm Sewer System under federal regulations. The Caltrans municipal separate storm sewer system permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The State Water Resources Control Board or the Regional Water Quality Control Board issues National Pollutant Discharge Elimination System permits for 5 years, and permit requirements remain active until a new permit has been adopted.

The Caltrans municipal separate storm sewer system Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

- Caltrans must comply with the requirements of the Construction General Permit (see below).
- Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges. And
- Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) best management practices, to the maximum extent practicable, and other measures as the State Water Resources Control Board determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Storm Water Management Plan assigns responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Storm Water Management Plan describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest Storm Water Management Plan to address storm water runoff.

*Construction General Permit*

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009 and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17,

2012). The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area of 1 acre or greater, and/or are smaller sites that are part of a larger common plan of development.

By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to do the following: develop Storm Water Pollution Prevention Plans; implement sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2 and 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before-construction and after-construction aquatic biological assessments during specified seasonal windows.

For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan. In accordance with the Caltrans Storm Water Management Plan and Standard Specifications, a Water Pollution Control Program is necessary for projects with Disturbed Soil Area less than 1 acre.

*Section 401 Permitting*

Under Section 401 of the Clean Water Act, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will comply with state water quality standards. The most common federal permits triggering 401 Certification are Clean Water Act Section 404 permits issued by the U.S. Army Corps of Engineers. The 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board, dependent on the project location, and are required before the U.S. Army Corps of Engineers issues a 404 permit.

In some cases, the Regional Water Quality Control Board may have specific concerns with discharges associated with a project. As a result, the Regional Water Quality Control Board may issue a set of requirements known as Water Discharge Requirements under the State Water Code (known as the Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. Water Discharge Requirements can be issued to address both permanent and temporary discharges of a project.

### *Affected Environment*

This section is based on the Water Quality Assessment that was completed for the project on July 25, 2018.

The project is located on the Santa Maria River. The Santa Maria River is formed at the junction of the Cuyama River and Sisquoc River and drains directly to the Pacific Ocean. The Cuyama River, the Sisquoc River and the Santa Maria River are major components of the Santa Maria River watershed. The Santa Maria River and the Sisquoc River are part of the Santa Maria River Valley Groundwater Basin. Water flow on the Santa Maria River is highly regulated by the Twitchell Dam, which is located on the Cuyama river. During much of the year, the Santa Maria River is dry, and the presence of water is either the result of dam releases or heavy rain events. Engineered levees line most of the southern banks of the Santa Maria River.

The project is located on a portion of the Santa Maria River that is regulated by the Central Coast Regional Water Quality Control Board and the Central Coast Plan. The Santa Maria River watershed has been identified on the Central Coast Regional Water Quality Control Board 2008 list for Total Maximum Daily Load Priority Schedule of impaired waters.

### *Environmental Consequences*

The project would demolish an existing bridge structure and build a new a bridge structure over the Santa Maria River.

During project construction, various project activities would occur, above, next to and within the river. It is anticipated that construction-related activities would result in temporary and intermittent impacts to water quality as foreign materials may enter the river. The project is not anticipated to result in long-term impacts to water quality because the Santa Maria River is mostly dry most of the year. If water is present in the river during bridge construction, no work will be permitted to occur when water is flowing.

The project would result in 10.5 acres of disturbed soil. The acres account for bridge construction areas, structure excavation areas, potential local road excavation areas, road shoulder approaches to the bridge, and potential contractor stockpiling/staging areas. In addition, 0.4 acre of new net impervious surface area would be added as result of the wider deck on the new bridge structure. No groundwater impacts are expected as a result of the project.

The project will incorporate a variety of temporary Caltrans standard engineering practices during construction to protect water quality that would include, but not limited to: litter prevention and collection, spill control and prevention, soil stabilization, runoff and sediment control, erosion control and job site management. In addition, the project may incorporate permanent features into the project post construction to provide long-term protection to water quality, which may include, but not limited to: vegetated swales, sand filters and runoff basins.

### *Avoidance, Minimization, and/or Mitigation Measures*

The project will comply with water pollution protection provisions for Caltrans Standard Specifications and the National Pollutant Discharge Elimination System permit for Caltrans, as well as Section 20-3, Erosion Control, of the Caltrans Standard Specifications.

To minimize impacts on water quality and storm water runoff on this project, the following measures will be implemented:

1) The project will implement appropriate Best Management Practices and construction practices to minimize and avoid potential impacts to the river channel as a result of construction activities.

2) Work in the river will be performed during the dry season (typically from June to October) and only if there is no flow. When work is near streams, erosion and sediment controls will be implemented to keep sediment out of the stream channel.

3) A Storm Water Pollution Prevention Plan will be prepared prior to ground disturbance and implemented during construction as required per Caltrans standard practice.

4) The project will isolate equipment staging and spoil/material storage areas away from the river channel using appropriate storm water control barriers.

5) When in-channel work is required, the project will stabilize access routes to the river in order to reduce tracking of mud and dirt in and out of the river channel.

6) The project will preserve existing vegetation outside of the active work area.

7) At minimum, the following Best Management Practice will be implemented:

    a) Install appropriate fencing to control sediment. Fencing should be installed only where sediment-laden water can pond, thus allowing the sediment to settle out.

    b) Install fiber rolls along the slope contour above the high-water level to intercept runoff, to reduce flow velocity, and to release the runoff as sheet flow and provide removal of sediment from the runoff. In a stream environment, fiber rolls should be used in conjunction with other sediment control methods.

    c) Use a gravel bag berm or barrier to intercept and slow the flow of sediment-laden sheet flow runoff. In a stream environment, gravel bag barriers can allow sediment to settle from runoff before water leaves the construction site and can be used to isolate the work area from the stream. Gravel bag barriers are not recommended as a perimeter sediment control practice around streams.

### 2.2.2 Geology, Soils, Seismicity and Topography

#### *Regulatory Setting*

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Caltrans Seismic Design Criteria. The Seismic Design Criteria provide the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, see the Caltrans Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

#### *Affected Environment*

This section is based on the Structures Preliminary Geotechnical Report that was completed for the project on November 7, 2016.

##### *Regional Geology and Seismicity*

The project is in the Coast Ranges geomorphic province of California. The project site is about 2.8 miles southwest of the San Luis Range-Oceano fault, which has a maximum credible earthquake magnitude of 6.8. The project site is not within a known Alquist-Priolo Earthquake Fault Zone.

##### *Site Conditions*

Subsurface conditions in the vicinity of the project site are composed of quaternary recent alluvium, which consists of alluvium and river channel deposits. The channel condition is described as "sandy gravel with fairly heavy shrub growth."

The soil from the ground surface to approximately 45–50 feet below ground surface contains layers of stiff clay, soft clayey silt, very loose silt, slightly compact silt, slightly compact sand, compact sand, and dense sand. In general, below 45–50 feet from the ground surface, the soils are dense to very dense sand.

During a 1953 field investigation, groundwater was observed at 60.5 feet below ground surface. However, groundwater may also be encountered at higher elevations during and shortly after times of surface flows within the channel. Although no surface water was seen during the October 26, 2016 site visit, groundwater may still exist within the foundation soils.

### *Environmental Consequences*

There are no known active faults within 1,000 feet of the project area, and there is no potential for ground rupture in the project area.

The project is in an area where there is the potential for liquefaction due to the soil composition and groundwater in the creek bed.

Although the project area would experience strong seismic ground shaking in the event of a large earthquake, the project would be designed according to Caltrans seismic standards, as provided in the Highway Design Manual, minimizing the risk for strong seismic ground shaking for construction workers and the traveling public. It is anticipated that the following foundation types may be used for the project: cast-in-drilled-hole concrete piles, cast-in-steel-shell concrete piles, driven open-ended pipe piles, or driven displacement piles.

A subsurface geotechnical investigation was conducted for this project. All subsurface investigations were conducted within the existing State right of way and from the roadway surface. The information gathered from this investigation is currently being analyzed and its findings will be used to determine the final bridge structure design. The project's final bridge structure design will be determined after approval of the project document and prior to project construction.

### *Avoidance, Minimization, and/or Mitigation Measures*

The following avoidance and minimization measures will be implemented for the project:

1) The project will design the new structure according to Caltrans seismic design standards, as provided in the Highway Design Manual, to reduce the potential of failure as a result of an earthquake, liquefaction, erosion or other geological hazards.

## 2.2.3 Noise

### *Regulatory Setting*

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

#### *California Environmental Quality Act*

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not

feasible. The rest of this section will focus on the NEPA/Title 23 Part 772 of the Code of Federal Regulations (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

*National Environmental Policy Act and 23 Code of Federal Regulations 772*

For highway transportation projects with Federal Highway Administration involvement (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the noise abatement criteria for residences (67 A-weighted decibels) is lower than the noise abatement criteria for commercial areas (72 A-weighted decibels). Table 2.1 lists the noise abatement criteria for use in the NEPA/23 Code of Federal Regulations 772 analysis.

Figure 2-2 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

According to the Department's *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011*, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 A-weighted decibel or more) or when the future noise level with the project approaches or exceeds the noise abatement criteria. A noise level is considered to approach the noise abatement criteria if it is within 1 A-weighted decibel of the noise abatement criteria.

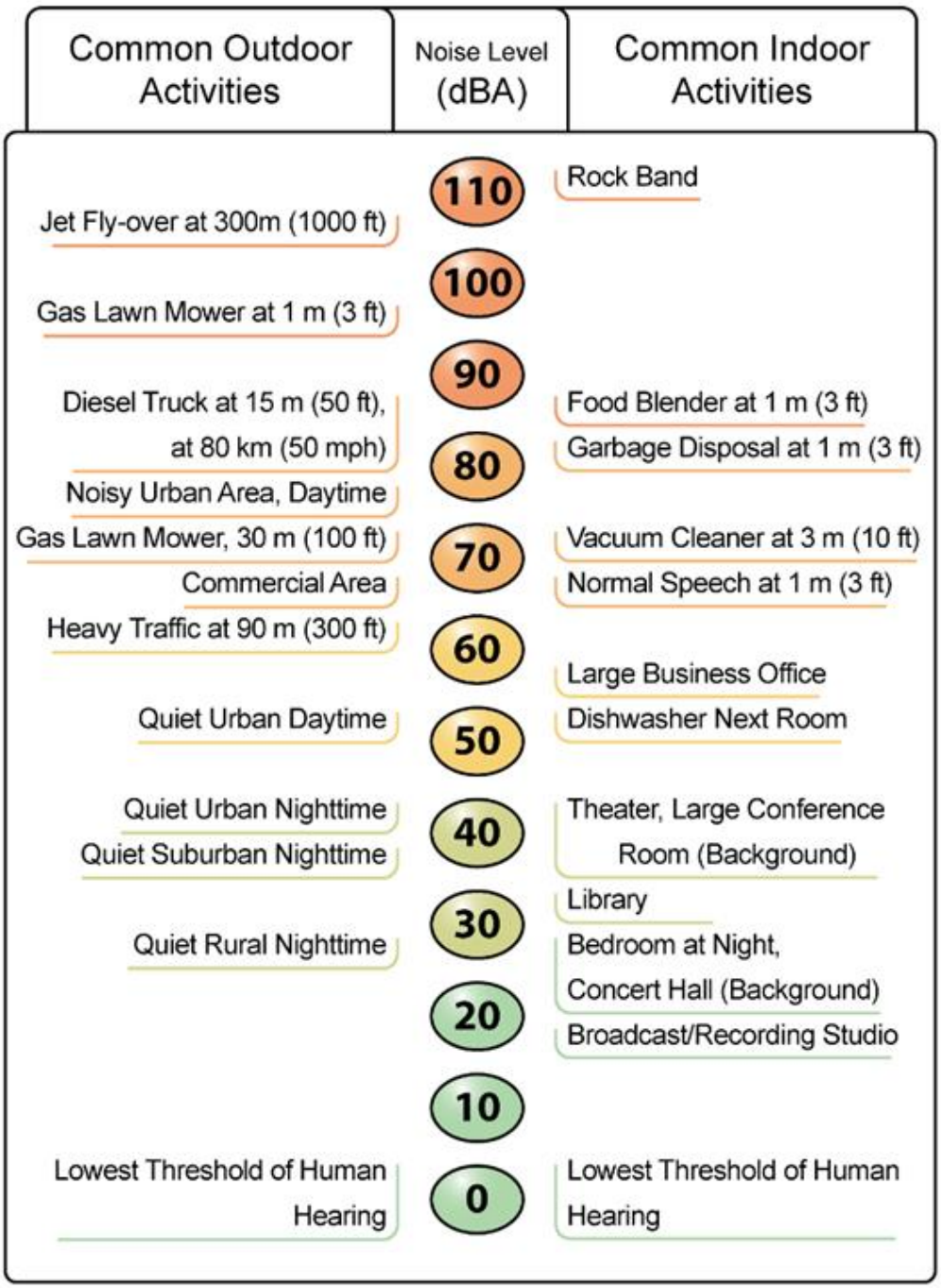
If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

## Table 2.1 Noise Abatement Criteria

| Activity Category | Noise Abatement Criteria, Hourly A-Weighted Noise Level, Leq(h) | Description of Activity Category |
|---|---|---|
| A | 57 (Exterior) | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B[1] | 67 (Exterior) | Residential. |
| C[1] | 67 (Exterior) | Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings. |
| D | 52 (Interior) | Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. |
| E | 72 (Exterior) | Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F. |
| F | No Noise Abatement Criteria—reporting only | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing. |
| G | No Noise Abatement Criteria—reporting only | Undeveloped lands that are not permitted. |

[1] Includes undeveloped lands permitted for this activity category.

**Figure 2-2 Noise Levels of Common Activities**



The Department's *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 decibels at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: 1) the noise reduction design goal of 7 decibels at one or more impacted receptors; 2) the cost of noise abatement; and 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

### *Affected Environment*

This section is based on the Noise Study Report that was completed for the project on October 18, 2018.

The technical report evaluated the project pursuant to 23 Code of Federal Regulations 772.7. Under 23 Code of Federal Regulations 772.11, noise abatement must be considered for Type 1 projects if the project is predicted to result in a traffic noise impact.

The Noise Study Report measured noise levels as A-weighted decibels (known as dBA), which are an expression of relative loudness perceived by the human ear.

For this analysis, the existing condition year is identified as 2017 and the future condition of the project is identified as 2037. Traffic noise was evaluated under existing conditions, No-Build Alternative conditions (future conditions with no project) and Build Alternative conditions (future conditions with project).

The highest average traffic volumes on State Route 1 are predicted to occur during evening hours, therefore evening peak hour traffic volumes were used in the analysis.

#### *Land Uses and Terrain*

Land uses in the vicinity consist mostly of agricultural, single-family residences, multi-family residences, and commercial retail uses. The lands surrounding the existing bridge are largely agricultural and fallow lands. The area south of the existing bridge is mostly residential encompassing the city of Guadalupe. The terrain is mostly flat, with little elevation change throughout the project limits.

Based on the noise abatement criteria, the Activity Category for the surrounding area is identified as B (residential) and F (agricultural).

*Noise Measurement Methods*

As stated in the Caltrans Traffic Noise Analysis Protocol, noise abatement is considered only where frequent human use occurs and where a lowered noise level would be of benefit. Although all land uses are evaluated in this analysis, the focus is on locations of frequent human use that would benefit from a lowered noise level. Accordingly, this noise impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards and common use areas at multi-family residences.

The evaluation for short-term noise impacts was focused in the vicinity of 11th Street and 12th Street, identified as Area A and presented in Figure 2-3. Area A contains homes south of the bridge, located near 11th Street, shown in Figure 2-3 as R-4 and R-5. Short-term noise monitoring was also conducted for three homes immediately adjacent to the highway, shown in Figure 2-3 as R-1, R-2 and R-3. Area A is identified as containing Activity Category B, with a noise abatement criterion of 67 dBA.

Field gathered data (e.g. short-term noise measurements, measured, traffic volumes and speeds, vehicle mist information, and site-specific geographical information) were used to calibrate the traffic noise model so that it could be used to predict existing and future noise levels in the project area. Once calibrated, the traffic noise model was used to predict peak-hour noise levels with and without the project, and to determine if any applicable noise abatement measures needed to be considered for the project.

### *Environmental Consequences*

The project is considered a Type 1 project, which involves construction of a highway on a new location, the physical alteration of an existing highway, the addition of through-traffic lanes, or restriping existing pavement.

Temporary noise impacts during construction are discussed in Section 2.4, Construction Impacts.

*Traffic Noise Model - Existing Noise Levels*

The following information summarized the existing noise levels for five locations in Area A:

- Location R-1: 60 dBA
- Location R-2: 65 dBA
- Location R-3: 68 dBA
- Location R-4: 67 dBA
- Location R-5: 68 dBA

The modeled traffic noise levels for location R-1 and R-2 is below the noise abatement criteria of 67 dBA.

The modeled traffic noise levels for locations R-3, R-4 and R-5 are considered to exceed the noise abatement criteria of 67 dBA.

*Traffic Noise Model - Future Noise Levels*

No-Build Alternative Conditions

The following information summarizes the predicted noise levels for locations in Area A under the No-Build Alternative conditions:

- Location R-1: 61 dBA
- Location R-2: 65 dBA
- Location R-3: 68 dBA
- Location R-4: 68 dBA
- Location R-5: 69 dBA

The predicted future noise level is the result of anticipated increase in future traffic volume in the area without the proposed highway realignment. Under the No-Build Alternative, the increase in noise levels between existing conditions and the future conditions is predicted to be 0 to 1 dBA greater than existing conditions.

The predicted noise levels at locations R-1 and R-2 are below the noise abatement criteria, avoiding noise impacts and not requiring noise abatement.

The predicted noise levels for locations R-3, R-4 and R-5 would approach or exceed the noise abatement criteria.

Under the No-Build Alternative conditions, noise abatement measures are not considered as the No-Build Alternative proposes no actions and no changes would be made.

Build Alternative Conditions

The following information summarizes the predicted noise level for locations in Area A under the proposed Build Alternative conditions:

- Location R-1: 65 dBA
- Location R-2: 67 dBA
- Location R-3: 67 dBA
- Location R-4: 68 dBA
- Location R-5: 68 dBA

The predicted future noise level is the result of anticipated increase in traffic volume in the area with the proposed highway realignment.

Under the proposed Build Alternative, the increase in noise levels between existing conditions and the future conditions is predicted to be 0 to 4 dBA greater than existing conditions.

At location R-1, the modeled future noise level is predicted to increase by 4 dBA but would remain below the noise abatement criteria of 67dBA, thus not requiring noise abatement.

At location R-2, the modeled future noise level is predicted to be 67 dBA. Since the noise level at location R-2 is predicted to approach the noise abatement criteria, traffic noise impacts could occur, and noise abatement must be considered for Location R-2.

At location R-3, R-4 and R-5, the modeled future noise levels at these three locations are expected to remain the same or slightly decrease from the predicted future No-Build condition but would still exceed the noise abatement criteria of 67dBA. Although the modeled future noise levels at locations R-3, R-4 and R-5 is predicted to approach or exceed the noise abatement criterion under the Build Alternative condition, the predicted increase in future noise level would not be attributed to the proposed highway realignment, because under the No-Build Alternative condition, the modeled future noise levels at these locations is also predicted to approach or exceed the noise abatement criterion. Therefore, the proposed highway realignment is not anticipated to result in project induced noise impacts for locations R-3, R-4 and R-5.

Under the proposed Build Alternative, the predicted change in noise levels between the existing and future conditions is either a not net change or a slight decrease. It is predicted that future noise levels in Area A is attributable to future increases in traffic noise that would occur regardless of whether the proposed Build Alternative was implemented.

*Noise Abatement*

Noise abatement is considered where noise impacts as a result of the project are predicted in areas of frequent human use that would benefit from a lowered noise level. According to 23 Code of Federal Regulations 772(13)(c) and 772(15)(c), federal funding may be used for the following abatement measures:

- Construction of noise barriers, including acquisition of property rights, either within or outside the highway right-of-way.
- Traffic management measures including, but not limited to, traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations.
- Alteration of horizontal and vertical alignments.
- Acquisition of real property or interests therein (mainly unimproved property) to serve as a buffer zone to preempt development that would be adversely impacted by traffic noise.

- Noise insulation of Activity Category D land use facilities. Post-installation maintenance and operational costs for noise insulation are not eligible for federal-aid funding.

Consideration for Build Alternative

The future noise level in Area A under the proposed Build Alternative condition is predicted to approach or exceed the noise abatement criteria for locations R-2, R-3, R-4 and R-5.

Noise abatement measures were evaluated for location R-2 as the predicted noise levels at this location is expected to approach or exceed the noise abatement criteria at 67 dBA. The abatement measure evaluated for the single residential receptor at location R-2 was in the form of a 16-foot tall soundwall. However, it was determined that this abatement measure was not feasible due to the following constraints:

- The receptor is on a corner residential lot at the intersection of State Route 1 and 12th street.
- Due to the cross street and driveway entrance to the residence, the soundwall could only be placed along the edge of State Route 1 and cannot be wrapped around the corner.
- The soundwall would have ended before the intersection of State Route 1 and 12th street because of sight distance safety implications for vehicles entering and exiting the highway from 12th street.
- Due to the constraints mentioned, the soundwall would not be effective at reducing traffic noise and would not provide the minimum 5 dBA reduction required to be considered acoustically feasible.

Noise abatement measures was considered for location R-3, R-4 and R-5 as the predicted noise levels at this location is expected to approach or exceed the noise abatement criteria at 67 dBA. However, it was evident that abatement measures would not be feasible or effective at these locations for the following reason:

- These receptors are on residential lots containing pedestrian sidewalks and residential driveways that are located directly adjacent to the highway.
- The residential driveways would prevent the construction of a continuous noise barrier along the edge of the highway. Having gaps in the noise barriers is not expected to provide the minimum 5 dBA reduction required to be considered feasible.
- The driveways and sidewalks also prevent any alteration of the horizontal or vertical alignment of the highway that would result in effective noise abatement.
- Acquisition of buffer zones is not feasible as the adjacent properties are already developed and contains residents.

**Figure 2-3 Area A, Short-term Noise Monitoring and Modeling Locations**

### *Avoidance, Minimization, and/or Noise Abatement Measures*

It was predicted that location R-2 would experience an increase in noise levels as a result of the proposed project. Although abatement measures were evaluated for location R-2, it was determined that no feasible and effective abatement measure was possible for this location.

It was predicted that location R-3, R-4 and R-5 would experience increase in noise levels with or without the proposed project. Although abatement measures were considered for these locations, there were no feasible measures that could provide an affective noise abatement for these locations.

Measures to address temporary noise impacts as a result of project construction are discussed in Section 2.4, Construction Impacts.

## 2.3 Biological Environment

### 2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Section 2.3.5, Threatened and Endangered Species. Wetlands and other waters are discussed in Section 2.3.2.

### *Affected Environment*

Information used in this section is based on the Natural Environment Study that was completed for the project on November 22, 2019.

The project's Biological Study Area occurs in a partially developed urban/agricultural area. The Biological Study Area is composed of State Route 1, the surrounding state right-of-way, and private lands in San Luis Obispo and Santa Barbara counties. The Santa Maria River is largely undeveloped and composes most of the biological study area. The southern end of the Biological Study Area is in the city of Guadalupe. The area contains ranches, storefronts, and homes, and extends through the Santa Maria River and ends in agricultural fields north of the Santa Maria River Bridge. The entire Biological Study Area occurs within the Santa Maria River watershed.

The topography in the Biological Study Area is relatively flat with no major changes in elevation.

The dominant vegetation within the study area outside of the Santa Maria River can be characterized as developed or agricultural land, or an area regularly disturbed by human activities such as farming, ranching, or urban development. Plant communities are composed of mostly non-native species, including non-native grasses. Ruderal habitat, composed of common weedy species growing on highly disturbed soils, occurs along State Route 1 in the right-of-way and on the outer edges of the riparian habitat. Common species found onsite from this community include slender wild oat (*Avena barbata*), several species of brome (*Bromus diandrus, Bromus madritensis, Bromus hordeaceous*), pineapple weed (*Matricaria dicoidea*), and Russian thistle (*Salsola tragus*).

Within the Santa Maria River channel itself, the vegetation consists of 40–50 percent species common in non-beach sandy areas and 50–60 percent mule fat scrub. The mule fat scrub alliance is a shrub-dominated community with about 50 percent mule fat (*Baccharis salsilofolia*) cover and a sparse herbaceous layer. This habitat is typical of floodplains and stream channels, which accurately represents the river's wide braided channel system. Other shrubs found in this community of the Biological Study Area include California sagebrush (*Artemisia californica*), coyote bush (*Baccharis pilularis*), dune bush lupine (*Lupinus chamissonis*), black sage (*Salvia mellifera*), and blue elderberry (*Sambucus nigra ssp. Caerulea*). Many native and exotic herbaceous species occur in the understory, including fiddleneck (*Amsinckia menziesii*), California primrose (*Oenothera californica ssp. californica*), lamb's quarters (*Chenopodium album*), California croton (*Croton californicus*), Canadian horseweed (*Erigeron canadensis*), stinging nettle (*Urtica dioica*), and sticky phacelia (*Phacelia viscida var. viscida*).

A willow thicket occurs next to the river channel and extends to meet the developed and agricultural land. The dominant species is arroyo willow (*Salix lasiolepis*), but a few other species of willow were documented within the Biological Study Area including red willow (*Salix laevigata*) and sandbar willow (*Salix exigua var. hindsiana*). There is no persistent understory, but some fennel (*Foeniculum vulfare*) exists in the understory near the edges of the riparian area, as well as native and non-native grasses and herbs.

*Habitat Connectivity*

The Santa Maria River is a seasonably dry, vegetated riverbed that connects the Los Padres Mountains to the Pacific Ocean. Because the river provides miles of connected habitat through a highly developed area, it likely serves as a wildlife corridor for a variety of species. Birds and bats use the bridge structure and riparian forest that borders the river to forage on the insects and in the river channel. Medium and small mammals are prevalent in the riverbed, likely because it provides continuous habitat and sandy friable soils for them to burrow, forage, and disperse. Amphibians in the area rely on the temporally wet riverbed and surrounding agricultural ditches to breed, forage, and disperse and therefore are likely to move through the riverbed year-round.

On a macro-level, the Santa Maria River lies between two large natural land block areas: the Sierra Madre Mountains and the Casmalia Hills. The river is surrounded by developed agricultural lands and urban environments, making it an important corridor for wildlife moving or dispersing between the two land blocks. Agricultural fields are often tilled, mowed, and picked. The high frequency and intensity of disturbance for these activities make them poor lands for wildlife dispersal. Urban landscapes do not provide enough cover or natural forage for wildlife dispersal. The Santa Maria River provides a wildlife corridor both on a local and a regional scale.

### *Environmental Consequences*

Permanent impacts, totaling approximately 1.4 acres, would be primarily limited to areas where the new State Route 1 alignment would be shifted onto unpaved ruderal/disturbed areas.

Permanent impacts would also occur at each of the new bridge pier locations because the project would install new pier structures. However, the new bridge structure would require only 12 pier structures and would remove the existing 23 pier walls resulting in a net gain of streambed habitat. Also, due to the highway realignment, there are areas of existing road that would no longer be a part of the new highway. These areas would be restored to landscaped highway right-of-way totaling approximately 0.5 acre. This restored area as well as the net gain of streambed habitat from the reduction of pier structures is subtracted from the permanent impact areas.

Temporary impacts include equipment staging areas, access roads, and work areas needed to construct the new bridge and remove the existing bridge. These impacts would include tree and vegetation removal, grading, compaction by construction equipment, and foot traffic required to construct the new bridge. Temporary impacts would total approximately 6.4 acres; these impacts would occur along the east and west sides of the highway and the areas surrounding the existing and proposed Santa Maria River Bridge, and access roads on the northeast and southwest sides of the bridge.

#### *Habitat Connectivity*

While habitat connectivity along the Santa Maria River within the Biological Study Area could be temporarily disrupted during construction activities, the new bridge structure would have longer spans and longer gaps between each individual pier structure, which means there would be larger gaps between permanent structures than what exists now. These design features would result in a more open area and provide improved habitat conditions for migrating species. During project construction, measures would be implemented to avoid impacts to migrating steelhead species that use the river for migration, as discussed in Section 2.3.2, Wetlands and Other Waters.

### *Avoidance, Minimization, and/or Mitigation Measures*

The proposed measures would be implemented to avoid and minimize potential project impacts to natural communities.

In addition, it is anticipated that measures described in Section 2.3.2, Wetlands and Other Water, will also serve to avoid and minimize potential impacts to natural communities resulting from project activities.

1. Temporary environmental sensitive area fencing and/or flagging would be installed on the perimeter of the project area to prevent potential impacts on natural communities located outside of the project area.

2. At end of project construction, all areas temporarily impacted by project activities will be re-vegetated via erosion control seedings along the roadside and replacement tree plantings in the riparian zone.

3. All areas temporarily impacted by project activities would be returned to original grade and contour after construction.

## 2.3.2 Wetlands and Other Waters

### *Regulatory Setting*

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

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

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

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

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, Executive Order 11990 states that a federal agency, such as the Federal Highway Administration and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

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

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Water Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act. Through the Porter-Cologne Water Quality Control Act, the Regional Water Quality Control Board asserts jurisdiction over Waters of the State of California, which is generally the same as waters of the United States but may also include isolated waterbodies. The Porter-Cologne Act defines Waters of the State of California as "surface water or ground water, including saline waters, within the boundaries of the state." In compliance with Section 401 of the Clean Water Act, the Regional Water Quality Control Boards also issue water quality certifications for activities that may result in a discharge to waters of the United States. This is most frequently required in tandem with a Section 404 permit request.

### *Affected Environment*

Information used in this section is based on the Natural Environment Study completed for this project on November 22, 2019.

An assessment and delineation of potentially jurisdictional areas was conducted within the Biological Study Area by Caltrans biologists on August 30, 2018 during the dry season.

For most of the months leading up to the field work, precipitation was average compared to historical norms. No wetlands were found during the survey of the biological study area. Delineated potential jurisdictional areas (wetland and riparian) within the Biological Study Area are shown in Appendix D. A total of 3.18 acres of U.S. Army Corps of Engineers jurisdiction, 12.57 acres of Regional Water Quality Control Board jurisdiction, and 12.57 acres of California Department of Fish and Wildlife jurisdiction were delineated within the biological study area. These findings may be subject to final verification by the respective agencies.

### *Environmental Consequences*

Impacts on jurisdictional areas within the project area are necessary to provide work areas and access areas to the Santa Maria River Bridge. The project would require temporary construction access and work areas through the riparian area, unvegetated streambank and streambed. Temporary impacts would include tree and vegetation removal, clearing and grubbing, ground compaction, and disturbance.

The existing Santa Maria River Bridge is supported by 23 pier walls measuring 15.67 feet long and 1.67 feet wide. Each pier wall footprint measures approximately 26.16 square feet, for a total of 601.88 square feet of existing permanent pier structures in the biological study area. The new bridge would be supported by 12 sets of three piers that are each 4 feet in diameter, equivalent to 453 square feet of permanent pier structure in the biological study area. This is a reduction of approximately 148.88 square feet, of permanent impacts, which would result in a net gain of streambed habitat.

The current project footprint has avoided all wetlands, and impacts are restricted to the riparian area, streambed, and stream bank of the Santa Maria River directly adjacent to the highway bridge.

Work in jurisdictional areas would occur in the dry season for two consecutive years when the Santa Maria River is unlikely to be flowing. Because no work would occur when the river is flowing, there would be no negative impacts on water quality.

### *Avoidance, Minimization, and/or Mitigation Measures*

The following measures will be implemented to avoid and minimize the project's potential impacts on jurisdictional areas:

1) Prior to any ground-disturbing activities, temporary environmentally sensitive area fencing and/or flagging will be installed around wetland resources within the project limits to ensure these areas are not impacted by project activities. The location of environmentally sensitive areas will be included on design plans and delineated in the field prior to the start of construction.

2) During construction, all project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept by the contractor onsite at all times during construction.

3) During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will either be a minimum of 100 feet from jurisdictional areas or, if the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers (e.g., fiber rolls or equivalent). The staging areas will conform to Caltrans Construction Site Best Management Practices.

4) Each season after construction has been completed in jurisdictional areas, contours will be restored as close as possible to their original condition.

5) All trees removed will be replaced at a 1:1 or 3:1 ratio depending on their species and size.

6) Vegetated streambank disturbed by project activities will be revegetated with native seed mix that is consisted with the existing natural community type, but will not be monitored for success, as river flows could potentially disturb the streambank as part of natural geomorphic process typical of this type of river system.

### 2.3.3 Plant Species

#### *Regulatory Setting*

The U.S. Fish and Wildlife Service and California Department of Fish and Wildlife have regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special-status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. See Section 2.3.5, Threatened and Endangered Species, in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including California Department of Fish and Wildlife Species of Special Concern, U.S. Fish and Wildlife Service candidate species, and California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at 16 U.S. Code Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code Section 1900-1913, and California Environmental Quality Act, found at Public Resources Code Sections 21000-21177.

#### *Affected Environment*

Information used in this section is based on the Natural Environment Study completed for the project on November 22, 2019.

Botanical surveys were conducted on May 7, 2018 and June 27, 2018 by Caltrans biologists. The surveys were floristic in nature and were conducted when target species would be flowering and identifiable.

A query of the California Natural Diversity Database documents for special-status plant taxa, the official U.S. Fish and Wildlife Service species list for the project area, and the California Native Plant Society Rare Plant Inventory was made to identify special-status plant species within the biological study area.

Potential habitat occurs within the Biological Study Area for the following special-status plant species: La Graciosa thistle (*Cirsium loncholepis*), and black-flowered figwort (*Scrophularia atrata*).

No special-status plant species were observed during appropriately timed surveys.

Because of its threatened and/or endangered status, La Graciosa thistle is discussed in Section 2.3.5, Threatened and Endangered Species.

### *Environmental Consequences*

Though suitable habitat for the black-flowered figwort (*Scrophularia atrata*) occurs in the biological study area, no plants were found in the Biological Study Area during appropriately timed field surveys.

No special status plans species were observed, and none are anticipated to occur within the project area. Therefore, the project is not anticipated to affect any special status plant species.

Based on a lack of suitable habitat and no observations during appropriately timed floristic surveys, the Federal Endangered Species Act Section 7 effects determination is that the proposed project will have no effect on the following federal listed plant species: Gambel's watercress (*Rorippa gambelii*), march sandwort (*Arenaria paludicola*), salt march bird's beak (*Cordylanthus maritimus ssp. maritimus*), spreading navarretia (*Navarettia fossalis*), Gaviota tarplant (*Deinandra increscense*), Pismo clarkia (*Clarkia speciose ssp. Immaculata*), Lompoc yerba santa (*Eriodictyon capitatum*), Beach layia (*Layia carnosa*), and Nipomo mesa lupine (*Lupinus nipomensis*). There will be no effect on designated critical habitats for these federally listed plant species.

### *Avoidance, Minimization, and/or Mitigation Measures*

The proposed project is not anticipated to impact any plant species. No avoidance, minimization or mitigation measures are required for plant species.

## 2.3.4 Animal Species

### *Regulatory Setting*

Many state and federal laws regulate impacts on wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and the California Department of Fish and Wildlife are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the Federal Endangered Species Act or the California Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.5. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and Species of Special Concern, and U.S. Fish and Wildlife Service or National Marine Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act

- Fish and Wildlife Coordination Act
- State laws and regulations pertaining to wildlife include the following:
- California Environmental Quality Act
- California Fish and Game Code Sections 1600–1603
- California Fish and Game Code Sections 4150 and 4152

### *Affected Environment*

Information used in this section is based on the Natural Environment Study completed for the project on November 22, 2019.

A query of the California Natural Diversity Database documents for special-status animal species (federally listed, state listed, California Fully Protected Species, California Species of Special Concern, and/or protected by the Migratory Bird Treaty Act and California Fish and Game Code) and the official U.S. Fish and Wildlife Service species list for the project area was made to identify special-status animal species within the biological study area.

In addition, species not appearing in the California Natural Diversity Database or U.S. Fish and Wildlife Service species lists but included for consideration based on the presence of suitable habitat were numerous species of nesting birds with potential to occur in the Biological Study Area and that are protected by the Migratory Bird Treaty Act and California Fish and Game Code Section 3503. The "roosting bats" category was also added for the various species of bats known to roost in bridges that are protected by the California Environmental Quality Act.

The Biological Study Area includes potential habitat for several special-status animal species and includes the following: California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*), Northern California legless lizard (*Anniella pulchra*), Coast horned lizard (*Phrynosoma blainvillii*), southwestern willow flycatcher (*Empidonaz trailii extimus*), Least Bell's vireo (*Vireo bellii pusillus*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), pallid bat (*Antroxous pallidus*), western red bat (*Lasiurus blossevillii*), Townshend's big-eared bat (*Corynorhinus townshendii*), American badger (*Taxidea taxus*), South Central Coast California steelhead Distinct Population Segment (*Oncorhynchus mykiss*), and Southern California steelhead Distinct Population Segment (*Oncorhynchus mykiss*).

Due to their threatened and/or endangered status, the following animal species are discussed in Section 2.3.5 Threatened and Endangered Species: California tiger salamander, California red-legged frog, southwestern willow flycatcher, Least Bell's vireo, burrowing owl, Swainson's hawk, South Central Coast California steelhead, and Southern California steelhead.

*Bats*

Multiple bat species may be using the Santa Maria River Bridge for night roosting, including the pallid bat, western red bat, and Townsend's big-eared bat. The Santa Maria River Bridge was assessed as the only structure capable of providing habitat for roosting bats within the biological study area. Evidence of night roosting was observed under most of the bridge spans in corners where the bridge deck meets the pier walls. Dark stains and bat excrements were found in most corners of the bridge spans, indicating much of the bridge structure can support night roosting by bats. During wildlife surveys, no bats were seen roosting in the day. No cracks or crevices suitable for day roosting were found. Based on these surveys, it is inferred that the Santa Maria River Bridge serves as a large night roosting structure for bats using the Santa Maria River to feed and forage.

*American Badger*

The American badger is a California Department of Fish and Wildlife-designated Species of Special Concern. Most of the Biological Study Area has friable soils and supports foraging and burrowing habitat for the American badger. There is also the potential for an American badger to enter the Biological Study Area due to the transitory nature of the species.

While no American badgers were found during multiple survey visits to the biological study area, the species typically stays inside its dens for most of the day. Portions of the Biological Study Area have friable soils, especially in the Santa Maria riverbed, so habitat to support the species exists onsite. Also, the scour wall along the southern ordinary high-water mark of the Santa Maria River has some medium to large den entrances that are the appropriate size and shape of an American badger.

The Biological Study Area provides suitable foraging habitat for the American badger, with habitat to support several small reptile, rodent, and insect communities. Due to the transitory nature of the species, there is also the potential for an American badger to use the Santa Maria River as a movement corridor, crossing through the biological study area.

*Coast Horned Lizard and Northern California Legless Lizard*

These California Department of Fish and Wildlife-listed Species of Special Concern are discussed together because they have similar habitat requirements and because the project has similar potential to impacts to both species.

Coast horned lizards can be found in several habitat types, ranging from areas with an exposed gravelly sandy substrate with scattered shrubs, clearings in riparian woodlands, dry uniform chaparral, and annual grassland. Meanwhile, northern California legless lizards are found in coastal dune, valley-foothill, chaparral, and coastal scrub types.

All of the general wildlife survey dates were conducted in warm dry weather when California horned lizards are normally active above ground. While suitable habitat

occurs in the Biological Study Area for both species, none was found during general wildlife surveys. Though no individuals were found during surveys, both species are known to burrow under the surface of sandy soil or leaf litter. Also, the sandy river bottom in the Biological Study Area provides suitable habitat for the coast horned lizard, so presence of these species cannot be ruled out.

*Nesting Birds*

The list of birds protected by the Migratory Bird Treaty Act and California Fish and Game Code Section 3503 is extensive, and not all birds protected by these laws are included in the Natural Environment Study. Numerous nesting bird species protected by these two regulatory laws have the potential to nest in habitats within the biological study area.

### *Environmental Consequences*

*Bats*

Removal of the bridge would result in temporary loss of night roosting habitat for bats for the duration of construction until the new structure is completed. However, the proposed construction schedule allows the new bridge to be partially constructed before the existing bridge is demolished. This would ensure that new night roosting habitat would be in place before the existing habitat is removed. Additional artificial bat-roosting structures will be added to the new Santa Maria River bridge to promote and improve bat roosting on the new bridge structure.

*American Badger*

While it is not anticipated that the project would have a direct or indirect impact on the American badger, excavation within the project area has the potential to kill, injure, or displace animals that may be present. Ground disturbance may cause dust and vibrations that could temporarily dissuade foraging or traveling American badgers from entering the Biological Study Area.

*Coast Horned Lizard and Northern California Legless Lizard*

While it is not anticipated that the project would adversely impact these species, excavation activities within the project area have the possibility to kill, injure, or displace burrowing animals that may be present. Also, animals using the Santa Maria River as a wildlife corridor may temporarily be blocked by environmentally sensitive area fencing during construction. Temporary reduction of potential foraging or burrowing habitat areas may be an indirect impact of project activities on both of these species. Indirect impacts from increased dust levels, vibration, and noise may also dissuade these species from occupying or foraging in the Biological Study Area and force them to venture to areas away from the Biological Study Area.

*Nesting Birds*

Estimates of impacts on potential nesting habitat throughout the Biological Study Area are represented as impacts on riparian, vegetated, and non-vegetated streambank communities. Temporary impacts on potential nesting habitat would

occur mostly due to temporary construction access. The removal of vegetation, including riparian trees, could directly impact active bird nests and any eggs or young residing in nests, but only if vegetation is removed during nesting bird season (February 1–August 31). The understory vegetation surrounding impacted trees would also be removed, which could disturb prey such as insects and small mammals or reptiles. Removal of potential nesting trees for two consecutive work seasons would temporarily reduce the availability of nesting and roosting habitat, but the extent of the riverbed for miles upstream and downstream of the Biological Study Area is bordered by riparian trees that could support any displaced bird species. Indirect impacts could also result from noise and dust associated with construction. Noises created by large construction equipment could alter perching, foraging, and/or nesting behaviors. Dust could disturb air quality, reduce sight visibility, and hide potential prey. While temporary loss of vegetation supporting potential nesting habitat would occur, trees will be mitigated through onsite replacement plantings. The implementation of the avoidance and minimization measures such as appropriate timing of vegetation removal, pre-activity surveys, and exclusion zones will reduce the potential for adverse effects to nesting bird species.

### *Avoidance, Minimization, and/or Mitigation Measures*

The following avoidance and minimization measure will be implemented to protect animal species from project-related impacts:

1) Prior to initiation of stream dewatering, Caltrans staff will conduct a worker environmental training program, including a description of special-status species and their legal/protected status; their proximity to the project site; and avoidance/minimization measures to be implemented during the project.

#### *Bats*

The following measures apply to all bats protected by the California Department of Fish and Wildlife or under the California Environmental Quality Act and are intended to avoid impacts on night-roosting bats that may use the Santa Maria River Bridge:

2) No night work will occur during construction to avoid impacting or harming bats that may be using the new or existing Santa Maria River Bridge structures.

3) Specific day and night artificial bat roosting habitat and/or structures will be added to the new bridge structure. Day-roosting habitat in the form of wedges and small crevices that are just big enough for roosting bats will be provided on the new bridge. In addition, wooden bat boxes will be installed underneath the northern span of the new bridge. These bat boxes would provide wind brake and thermal buffer for night-roosting bats.

*American Badger*

The following measures are intended to avoid impacts on the American badger:

4) No less than 14 days and no more than 30 days prior to any construction activities or any project activity likely to impact the American badger, a preconstruction survey will be conducted for the American badger. The survey will identify badger habitat features on the project site, evaluate use by badgers and, if possible, assess the potential impacts on the badger by the proposed activity. The status of all dens should be determined and mapped. Known dens, if found occurring within the footprint of the activity, will be monitored for 3 days with tracking medium to determine the current use. If no badger activity is observed during this period, the den will be destroyed immediately to preclude subsequent use. If badger activity is observed at the den during this period, the den will be monitored for at least 5 consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Only when the den is determined to be unoccupied will the den be excavated under the direction of the biologist.

5) If the preconstruction survey reveals an active den or new information regarding badger presence within the area of potential impact, Caltrans will notify the California Department of Fish and Wildlife.

6) Prior to groundbreaking, a qualified biologist will conduct an environmental education and training session for all construction personnel. Prior to, during, and after the site-disturbance and/or construction phase, use of pesticides or herbicides should be in compliance with all federal, state, and local regulations. No rodent control pesticides will be used, including anticoagulant rodenticides such as brodifacoum, bromadiolone, difethialone, and difenacoum. This is necessary to minimize the possibility of primary or secondary poisoning of American badgers or other special-status species.

7) Project employees will be directed to exercise caution when driving within the project area. A 20-mile-per-hour speed limit will be strongly encouraged within the project site. Construction activity will be confined within the project site, which may include temporary access roads and staging areas specifically designated and marked for these purposes.

8) A litter control program will be instituted at each project site. No canine or feline pets or firearms (except for law enforcement officers and security personnel) will be permitted on construction sites to avoid harassment, killing, or injuring of badgers.

9) Maintenance and construction excavations greater than 2 feet deep will be covered (e.g., with plywood, sturdy plastic, steel plates, or equivalent), filled in at the end of each working day, or have escape ramps no greater than 200 feet apart to prevent trapping badger.

*Coast Horned Lizard and Northern California Legless Lizard*

The following measures are intended to avoid impacts on the Coast horned lizard and Northern California legless lizard:

10) Initial excavation and vegetation removal will be monitored by a Caltrans District biologist.

11) Coast horned lizards, Northern California legless lizards, or any species (excluding state or federal listed species) discovered during monitoring will be captured and relocated by a Caltrans biologist to suitable habitat outside of the area of potential impact. Observations of Species of Special Concern or other special-status species will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

12) Preconstruction surveys will occur within 14 days of construction. Caltrans biologists will place plywood boards around the bridge to attract local legless lizards. If legless lizards are found during these checks, they will be relocated outside the construction area.

*Nesting Birds*

Impact avoidance and minimization measures listed for jurisdictional areas would also apply to all bird nesting habitat impacted by the project. The following additional measures will also apply to all birds protected by the Migratory Bird Treaty Act and California Fish and Game Code 3503:

13) If feasible, vegetation removal for this project will be scheduled to occur from September 1 to January 31, outside of the typical nesting bird season, to avoid potential impacts on nesting birds.

14) If vegetation removal or other construction activities are proposed to occur during the nesting season (February 1 to August 31), a nesting bird survey will be conducted by a Caltrans biologist no more than 3 days prior to construction.

15) During construction, active bird nests will not be disturbed and eggs or young of native migratory birds covered will not be killed, destroyed, injured, or harassed at any time. Environmentally sensitive area designations will be in place where nests must be avoided. Environmentally sensitive areas will be established by a qualified biologist, and work in environmentally sensitive area zones can occur only under the supervision of a biological monitor, depending on sensitivity of the species in question, until young birds have fledged (permanently left the nest) or the qualified biologist has determined that nesting activity has otherwise ceased.

16) Trees to be removed will be noted on design plans. Prior to any ground-disturbing activities, high visibility fencing, or flagging will be installed around the dripline of trees to be protected within project limits.

17) No rodent control pesticides will be used, including anticoagulant rodenticides such as brodifacoum, bromadiolone, difethialone, and difenacoum. This is a necessary precaution to avoid secondary poisoning to raptors that hunt and feed on rodents and other small animals.

### 2.3.5 Threatened and Endangered Species

#### *Regulatory Setting*

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act (16 U.S. Code Section 1531, et seq.; see also 50 Code of Federal Regulations Part 402). This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species.

The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of the Federal Endangered Species Act defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (California Fish and Game Code Section 2050, et seq.). The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife is the agency responsible for implementing the California Endangered Species Act. California Fish and Game Code Section 2081 prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in California Fish and Game Code Section 86 as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, an Incidental Take permit is issued by the California Department of Fish and Wildlife. For species listed under both the Federal Endangered Species Act and the California Endangered Species Act requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Wildlife may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under California Fish and Game Code Section 2080.1.

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

### *Affected Environment*

Information used in this section is based on the project's Natural Environment Study prepared by Caltrans on November 22, 2019.

#### *La Graciosa Thistle*

La Graciosa thistle was not found during surveys within the biological study area, though there is a low possibility of occurrence. Federally designated critical habitat for the La Graciosa thistle occurs within part of the Biological Study Area that is encompassed by the Santa Maria River and adjacent riparian areas. Outside these areas, the main constituent elements for La Graciosa thistle are absent. The developed urban and agricultural areas both north and south of the river lack the Primary Constituent Elements required for La Graciosa habitat.

#### *Southern California Steelhead Critical Habitat*

The Biological Study Area falls within designated critical habitat for the Southern California steelhead. The Biological Study Area could provide freshwater migration corridors during periods of high rainfall and increased downstream flow when adults are migrating upstream, as well as migration corridors for juveniles as they make their way from spawning sites upstream back to the Pacific Ocean. Flows on the Santa Maria River are controlled mostly by the Twitchell Dam, so the river channel is dry much of the year. The streambed in the Biological Study Area is dry most of the year, so the Primary Constituent Elements for the steelhead are only met during heavy rains or when the dam releases sufficient water. During all surveys, the Santa Maria River was dry in the entire Biological Study Area and surrounding area.

#### *Southern and South-Central Coast California Steelhead*

The Southern California coast is the southernmost portion of the native steelhead range in North America. The steelhead trout in this region has adapted to seasonal flows following rains, and therefore is able to use intermittent streams such as the Santa Maria River. Because of the Twitchell Dam, the Santa Maria River is dry unless water is released from the Twitchell reservoir through the dam. When the Santa Maria River is dry, there is no connectivity from the Cuyama River and Sisquoc River to the Pacific Ocean, so steelhead migratory pathways are blocked. Specific surveys for steelhead trout were not performed for this project because the Santa Maria River is dry most of the year and water was not present during any surveys. The Twitchell Dam and the Santa Maria River are not expected to have any

surface flows during the dry season, so no migratory steelhead would be present during project construction. Juvenile and adult steelhead may be present during annual water releases from the Twitchell reservoir or during a series of very heavy precipitation events outside the working season.

### *Southwestern Willow Flycatcher, Least Bell's Vireo, and Swainson's Hawk*

These three federally protected nesting bird species are addressed here as a group because suitable habitat is present within the Biological Study Area and they have similar habitat requirements.

The southwestern willow flycatcher is a federally endangered species that nests and forages almost exclusively in dense riparian vegetation with standing water or saturated soil.

The least Bell's vireo is a state and federally endangered species that resides in coastal Southern California during the summer. The species occurs in low riparian areas near water or in dry river bottoms.

The Swainson's hawk is a state and federally protected raptor and is classified as a Fully Protected Species by the California Department of Fish and Wildlife. The species breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands. The Swainson's hawk prefers to nest in solitary trees or trees that are part of small riparian groves next to streams and rivers.

No Swainson's hawks, southwestern willow flycatchers, or least Bell's vireos were observed during field surveys in the biological study area. Species-specific surveys were not conducted.

The riparian zone in the Biological Study Area consists mostly of mature arroyo willow with a ruderal understory dominated by hemlock and non-native grasses. This could provide roosting habitat for Swainson's hawks and other raptors. The riparian zone is only marginal habitat for birds such as the southwestern willow flycatcher and least Bell's vireo, as they prefer earlier successional stages in the riparian zone, which is lacking within the biological study area.

### *California Tiger Salamander*

The California tiger salamander is federally listed as an endangered species and a state threatened species. California tiger salamander habitat includes a variety of areas, including aquatic, riparian and upland habitats. This species requires seasonal water for breeding and small mammal burrows, crevices in logs, piles of lumber and cracks in the ground for refuges.

The nearest known occurrence of the California tiger salamander is approximately 4.5 miles south of the project and south of the city of Guadalupe. Given the distance from known breeding ponds and the city of Guadalupe acts as a dispersal barrier,

the presence of California tiger salamanders in the Biological Study Area is highly unlikely.

*California Red-Legged Frog*

The California red-legged frog is federally listed as a threatened species and a state Species of Special Concern. Presently, Monterey, San Luis Obispo, and Santa Barbara counties support the largest remaining California red-legged frog populations within California. California red-legged frogs habitat includes a variety of areas, including aquatic, riparian, and upland habitats. These frogs prefer aquatic habitats with waters that exhibit little or no flow.

Protocol-level surveys were not conducted for the California red-legged frog for this project because presence was inferred based on local records and suitable habitat in and adjacent to the project area. Formal habitat assessments were conducted and submitted to the U.S. Fish and Wildlife Service for review. The species was not found during habitat assessment surveys.

The habitat assessment was conducted in October after the first rain of the fall season, which did not provide enough water to fill the agricultural ditches in the biological study area. The agricultural ditches are the only water features that could provide standing water deep and still enough for the frog. Suitable breeding habitat is found throughout the agricultural ditches bordering the Caltrans right-of-way and the agricultural fields. The Santa Maria River habitat does not hold water long or consistently enough to provide breeding habitat, but suitable dispersal habitat is found in adjacent riparian habitats.

The nearest California Natural Diversity Database record of the California red-legged frog is 1.6 miles directly south of the project area, where two adult frogs were found in 2005. Also, 28 adults and 15 juveniles were found during the survey season of 2002 in an agricultural ditch approximately 2.5 miles north of the biological study area. There are also several occurrences of California red-legged frog within the Santa Maria River and adjacent agricultural ditches approximately 3 to 10 miles upstream of the biological study area.

### *Environmental Consequences*

*La Graciosa Thistle*

It is anticipated that the project would have little or no effect on La Graciosa thistle, as there is a low probability of La Graciosa thistle occurring within the project limits and no La Graciosa thistle is anticipated to be found when project begin construction.

The Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on La Graciosa thistle species.

However, the project would temporarily affect up to 1.63 acres of designated La Graciosa thistle critical habitat within the Santa Maria River and surrounding riparian

area. However, not all the area provides the requisite Primary Constituent Elements necessary to meet the definition of critical habitat for the La Graciosa thistle. Areas that are highly developed by ranching, agriculture, and urban housing are only marginal critical habitat since they do not meet all of the requirements. Also, designated critical habitat for the La Graciosa thistle in California totals approximately 24,133 acres. The 1.63 acres that may be affected by this project represent less than 0.001 percent of the total designated critical habitat for this species.

Vegetation removal and grading would temporarily impact the Primary Constituent Elements for La Graciosa thistle critical habitat. Soils that could support critical habitat could be removed or compacted during construction activities. However, all impacts on La Graciosa thistle critical habitat are temporary. The site will be restored to provide better habitat conditions than currently found at the site. Trees will be replanted at a 1:1 or 3:1 ratio, native seed will be applied to replace existing non-native and invasive species, and the ground will be recontoured to the original grade. Critical habitat will be left in better condition than currently exists, following construction and revegetation.

The Federal Endangered Species Act Section 7 effects determination is that the project may affect and is likely to adversely affect La Graciosa thistle critical habitat. The extent and effects of temporary disturbances are estimated to be minor because the area is less than 0.001 percent of the total La Graciosa thistle critical habitat. Avoidance and minimization measures will be in place during project construction to protect critical habitat, including revegetation of the critical habitat disturbed by project activities.

*Southern California Steelhead Critical Habitat*

Temporary impacts on steelhead critical habitat have been estimated at approximately 1.20 acres. Because the presence of Primary Constituent Elements in the Biological Study Area is entirely dependent on rains and whether water is released from the Twitchell Dam, the estimated impacts on steelhead critical habitat match the measurement of the Santa Maria River within the Ordinary High-Water Mark.

The project would not result in long-term effects on Southern California steelhead critical habitat. The bridge replacement would result in a net reduction of permanent human-made structures in the streambed by approximately 148.88 square feet. The new bridge structure would have longer spans between sets of pier structures and longer gaps between each individual pier structure, which means there would be larger gaps between permanent structures than there are now. These design features would provide more open habitat for migrating steelhead.

Implementation of the project would also result in temporary impacts on dry streambed habitat. Equipment access into the stream channel, constructing the new bridge, and demolishing the existing bridge would be performed while the Santa Maria River is dry to avoid impacts on migrating steelhead trout. Work on the bridge

deck would occur when the river is flowing, but no in-channel work would occur in steelhead critical habitat. Also, any impacts on steelhead critical habitat during the dry season would be minimized through the implementation of avoidance and minimization measures.

The Federal Endangered Species Act Section 7 effect determination is that the project may affect but is not likely to adversely affect Southern California steelhead critical habitat. The placement of new bridge structures before the removal of existing bridge structures in the Santa Maria River channel could result in a temporary change of habitat for steelhead during the wet season. The extent and effects of this are estimated to be minor because the requirements for fish passage would be maintained during times when the river is flowing, and no work would occur when the Santa Maria River is flowing. Consultation with the National Marine Fisheries Service will be required for temporary effects on steelhead critical habitat that will result in a net gain of habitat.

*Southern and South-Central Coast California Steelhead*

The project does not have the potential to take any steelhead because all in-stream work would occur when the Santa Maria River is dry and devoid of aquatic species. The project has been designed to completely avoid work during the wet season when fish could be present. Water quality would not be affected, because all work in the river channel would occur when water is not present.

During the wet season between the 2 years of dry season construction, the new bridge would be partially constructed, and the old bridge would not yet be demolished. Migratory steelhead may experience a temporary decrease in habitat area during this period, but the amount of habitat reduced by the new pier structures would be very small.

Following construction, steelhead would benefit from a reduction in permanent structures in the water. Because the new bridge would have a smaller pier footprint and longer bridge spans between pier structures, migrating steelhead would have fewer passage impediments in the biological study area.

The Federal Endangered Species Act Section 7 effects determination is that the project may affect, but is not likely to adversely affect, Southern California and South-Central California coast steelhead. The basis for this determination is that steelhead presence has been inferred (based on the best available information), but there would be no anticipated take of an individual because all in-channel work would occur when the Santa Maria River is dry. Consultation with the National Marine Fisheries Service will be required.

*Southwestern Willow Flycatcher, Least Bell's Vireo, and Swainson's Hawk*

As discussed in Section 2.3.4, Animal Species, for the project's impacts on nesting birds, impacts to these bird species would be related to the removal of vegetation that could directly impact active bird nests and any eggs or young residing in nests,

but only if vegetation is removed during nesting bird season (February 1–August 31). Indirect impacts could also result from noise and dust associated with construction.

While temporary loss of vegetation supporting potential nesting habitat would occur, trees will be mitigated through onsite replacement plantings.

The Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on the southwestern willow flycatcher and least Bell's vireo. Although Swainson's hawks have historically been noted within the biological study area, the last sighting was recorded in 1896. The project is not expected to result in take of any state listed species as defined by the California Endangered Species Act and therefore will not require a 2081 Incidental Take Permit.

*California Tiger Salamander*

No California tiger salamanders were found in the Biological Study Area during appropriately timed surveys, and none are anticipated to be found within the project area during project construction because of dispersal barriers keeping California tiger salamanders from the work area. No avoidance, minimization or mitigation measures are anticipated for the California tiger salamander.

The Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on California tiger salamander and the project will have no take. The basis of this determination is based on the city of Guadalupe acting as a dispersal barrier for the nearest known species occurrence located south of the project area.

*California Red-Legged Frog*

Although the species was not found during habitat assessment surveys of the project area, presence is presumed due to the presence of potentially suitable habitat conditions in the project area.

Construction of the access road and new Santa Maria River Bridge have the potential to result in direct impacts through the temporary removal of upland and aquatic habitat, as well as injury or mortality of California red-legged frogs. The potential need to capture and relocate California red-legged frogs would subject these animals to stresses that could result in adverse effects. Injury or death could occur via accidental crushing by worker foot-traffic or construction equipment.

Indirect effects could also occur from the temporary removal of habitat, as well as noise and vibrations from construction equipment. The temporary reduction and fragmentation of upland dispersal habitat and aquatic breeding habitat could provoke the frogs that typically use the Biological Study Area for breeding to travel farther to find suitable aquatic or upland habitat. Lastly, frogs could be flushed from the Biological Study Area because of noises and ground tremors caused by moving trucks and construction equipment.

Although the above impacts could occur, habitat fragmentation and temporary disturbance are unlikely to have a negative influence on the population as a whole. The Biological Study Area is surrounded for several miles to the east and west by continuous streambed and riparian habitat, so this is not expected to be a strain on local populations that can find suitable adjacent upland or temporary aquatic habitat. Also, the Biological Study Area is surrounded by agricultural fields that provide a large network of agricultural ditches that could provide marginal breeding habitat. Any individuals temporarily displaced from the Biological Study Area would not need to travel far to find suitable habitat. No work would occur in the wetted streambank to avoid impacts on frogs when they are most likely to be present in the Santa Maria River.

The Federal Endangered Species Act Section 7 effects determination is that the project may affect, and is likely to adversely affect, the California red-legged frog. The basis for this determination is that presence of the California red-legged frog has been inferred in the entire biological study area, including construction areas, and there is a potential for take of the species during construction. Formal consultation with the U.S. Fish and Wildlife Service will be required. It is anticipated that a Programmatic Biological Opinion will be obtained for potential impacts to California red-legged frogs.

### *Avoidance, Minimization, and/or Mitigation Measures*

The following avoidance, minimization and/or mitigation measures will be implemented to protect special status species from project-related impacts:

*To La Graciosa Thistle Federally Designated Critical Habitat*

The avoidance and minimization measures discussed in Wetland and Other Waters (Section 2.3.2) are also applicable to federally designated critical habitat for the La Graciosa thistle. In addition, the following measures are proposed to further mitigate potential impacts on critical habitat:

1) To preserve as much seedbank as feasible, the first 6 inches of topsoil will be stockpiled and preserved before construction and will be returned to the Santa Maria River and associated riparian zone after construction work is complete.

2) The Biological Study Area will be seeded with an appropriate native seed mix to enhance and restore La Graciosa thistle critical habitat.

*Southern California Steelhead Critical Habitat*

The following measures will be implemented to avoid and minimize potential adverse impacts on Southern California steelhead critical habitat:

3) Prior to construction, a qualified biologist will conduct a worker environmental training program that will include a description of protected species and habitats, their legal/protected status, proximity to the project site, avoidance/minimization

measures to be implemented during the project, and the implications of violating the Federal Endangered Species Act and other relevant permit conditions.

4) During construction, in-stream work will be limited to June 15 through October 31, when the creek is dry. Deviations from this work window will be made only with concurrence from regulatory resource agencies.

5) In-stream construction work will be performed only in a dry work environment. Dewatering and clear water diversions are not anticipated, but if required will be performed according to Caltrans Construction Site Best Management Practices (2017). The upstream and downstream passage of adult and juvenile fish will be maintained at all times, according to current National Marine Fisheries Service guidelines and criteria.

6) Prior to construction, the contractor will prepare and sign a Water Pollution Control Plan or a Storm Water Pollution Prevention Plan that complies with the Caltrans Storm Water Quality Handbook (Caltrans 2017). Provisions of this plan will be implemented during and after construction as necessary to avoid and minimize erosion and storm water pollution in and near the work area.

7) During construction, all project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept by the contractor onsite at all times during construction.

8) During construction, erosion control measures will be implemented. Silt fencing, fiber rolls, and barriers will be installed as needed between the project site and jurisdictional waters and riparian habitat.

9) During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will either be a minimum of 100 feet from aquatic areas or, if the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers (e.g., fiber rolls or equivalent). The staging areas will conform to Caltrans Construction Site Best Management Practices applicable to attaining zero discharge of storm water runoff.

10) Immediately upon completing in-channel work, all in-channel structures will be removed in a manner that minimizes disturbance to downstream flows and water quality.

11) All temporary excavations and fills within project limits will be removed in their entirety and the affected areas returned to preconstruction elevations.

*Southern and South-Central Coast California Steelhead*

Avoidance and minimization measures for Southern California steelhead critical habitat apply to steelhead species as well. In addition, the following measure will be

implemented to avoid and minimize potential adverse impacts on steelhead trout resulting from the project:

12) During construction, no work will occur during the wet season. No work will occur in the river channel while there are surface flows.

*Southwestern Willow Flycatcher, Least Bell's Vireo, and Swainson's Hawk*

Avoidance and minimization measures as discussed for Animal Species (Section 2.3.4) will also apply to these bird species. In addition, the following measure will be implemented specifically for these three species:

13) If an active nest for southwestern willow flycatcher, least Bell's vireo is found within 100 feet of the biological study area, or if a Swainson's hawk nest is found 500 feet from the biological study area, all project activities will immediately cease while Caltrans coordinates with applicable regulatory agencies and determines if additional measures are necessary.

*California Red-Legged Frog*

Avoidance and minimization measures discussed in Wetland and Other Waters (Section 2.3.2) will also avoid and minimize temporary and long-term impacts on the California red-legged frog and its habitat.

14) Only U.S. Fish and Wildlife Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

15) Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

16) A U.S. Fish and Wildlife Service approved biologist will survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site will be in the same drainage to the extent practicable. Caltrans will coordinate with the U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

17) Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books,

and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

18) A U.S. Fish and Wildlife Service-approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans will designate a person to monitor onsite compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist will ensure that this monitor receives training in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and U.S. Fish and Wildlife Service during review of the proposed action, they will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring that all actions that are causing these effects to be halted. When work is stopped, the U.S. Fish and Wildlife Service will be notified as soon as possible.

19) During project activities, all trash that may attract predators or scavengers will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

20) Without the express permission of U.S. Fish and Wildlife Service, all refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

21) Habitat contours will be returned to a natural configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible, or modification of original contours would benefit the California red-legged frog.

22) The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to achieve the project. Environmentally sensitive areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and to minimize the impact on California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

23) Caltrans will attempt to schedule work for times of the year when impacts on the California red-legged frog would be minimal. For example, work that would affect

large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

24) To control sedimentation during and after project completion, Caltrans will implement Best Management Practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act received for the project. If Best Management Practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

25) If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh with openings not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.

26) Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that may attract California red-legged frogs.

27) A U.S. Fish and Wildlife Service-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs (Rana catesbeiana), signal and red swamp crayfish (Pacifasticus leniusculus; Procambarus clarkia), and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

28) If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

29) To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force will be followed at all times.

30) Project sites will be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas

disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

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

    a. Caltrans will not use herbicides during the breeding season for the California red-legged frog;

    b. Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur;

    c. Giant reed and other invasive plants will be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®;

    d. Licensed and experienced Caltrans staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site;

    e. All precautions will be taken to ensure that no herbicide is applied to native vegetation;

    f. Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water);

    g. Foliar applications of herbicide will not occur when wind speeds are in excess of 3 mi per hour;

    h. No herbicides will be applied within 24 hours of forecasted rain;

    i. Application of all herbicides will be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all applications is made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins;

    j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat.

Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

### 2.3.6 Invasive Species

#### *Regulatory Setting*

On February 3, 1999, President William J. Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." The Federal Highway Administration guidance issued August 10, 1999, directs the use of the state's invasive species list maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the NEPA analysis for a proposed project.

#### *Affected Environment*

Information used in this section is based on the project's Natural Environment Study prepared by Caltrans on November 22, 2019.

In total, 31 invasive plant species were identified by the online California Invasive Plant Council Database and were observed within the biological study area: sweet vernal grass (*Anthoxanthum odoratum*), slender wild oat (*Avena barbata*), black mustard (*Brassica nigra*), ripgut brome (*Bromus diandrus*), soft chess brome (*Bromus hordeaceous*), red brome (*Bromus madritensis ssp. Rubens),* Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis),* poison hemlock (*Conium maculatum*), common brass buttons (*Cotula coronopifolia*), Bermuda grass (*Cynodon dactylon*), cape ivy (*Delairea odorata*), perennial veldt grass (*Ehrharta calycina*), redstem filaree (*Erodium cicutarium*), Italian ryegrass (*Fescuta perennis*), rattail fescue (*Festuca myuros*), fennel (*Foeniculum vulgare*), cutleaf geranium (*Geranium dissectum*), foxtail barley (*Hordeum murinum*), perennial pepperweed (*Lepidium latifolium*), sweet alyssum (*Lobularia maritima*), horehound (*Marrubium vulgare*), tree tobacco (*Nicotiana glauca*), English plantain (*Plantago lanceolate*), rabbitsfoot grass (*Polypogon monspeliensis*), wild radish (*Raphanus sativus*), castor bean (*Ricinus communis*), curly leaved dock (*Rumex crispus*), Russian thistle (*Salsola tragus*), milk thistle (*Silybum marianum),* and tamarisk (*Tamarix ramosissima*).

Six exotic plant species with an invasiveness rating of "High" were seen in the biological study area: red brome, cape ivy, perennial veldt grass, fennel, perennial pepperweed, and tamarisk.

The distribution of these invasive plant species is throughout the biological study area, within Caltrans right-of-way and within the Santa Maria River riverbed.

### *Environmental Consequences*

The project has the potential to spread invasive species through contaminated equipment entering and exiting construction sites, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed may spread along the highway.

It is anticipated that any identified invasive species would be controlled and removed from the project area during project construction. In addition, invasive species would be removed from project restoration areas.

### *Avoidance, Minimization, and/or Mitigation Measures*

To ensure that the project does not promote the introduction or spread of invasive plant species into the biological study area, Caltrans Standard Specifications, appropriate Best Management Practices, along with measures from Wetland and Other Waters (Section 2.3.2), and measures from Threatened and Endangered Species (Section 2.3.5) will be implemented.

## 2.4 Construction Impacts

Project construction is anticipated to begin sometime during the 2022/2023 fiscal year and end in the 2025/2026 fiscal year. Project completion is expected to take about 530 working days, or about 24 working months, spread over three construction seasons (typically from June to October).

The project would result in temporary construction impacts associated with demolition and construction-related activities. A variety of construction equipment would be used.

For the Build Alternative, most of the construction activities would be occurring during the dry season (typically from June to October). The Build Alternative would require a two-stage construction process for bridge demolition and construction. The first stage involves construction of half of the new structure and demolishing half of the existing bridge. The second stage then continues construction of the final half of the new structure and demolishing the remains of the existing bridge. The project would also include pavement and sidewalk work.

The project would require the creation of access/haul roads for equipment and construction crew. The project would also need to establish a staging/storage site for equipment and materials. Temporary construction easements and access areas would be required. During construction, temporary environmentally sensitive area fencing would be installed to prevent disturbances to areas of environmental concern. During construction, State Route 1 would remain open to traffic. The

project construction activities are not expected to involve modifications or alterations to the existing levee structure on the Santa Maria River.

## Affected Environment

### *Parks and Recreational Facilities*

Le Roy Park is about 300 feet west of the proposed project. The park is west of State Route 1 on the north side of 11th Street. The park is about 8 acres, containing open space, picnic tables, barbecue equipment, a playground, restrooms, and a building for the Boys and Girls Club of America.

### *Air Quality*

The project is in the South-Central Coast Air Basin, which consists of San Luis Obispo, Santa Barbara, and Ventura counties. The Santa Barbara County Air Pollution Control District and San Luis Obispo County Air Pollution Control District regulate air quality in the basin.

Santa Barbara County is considered non-attainment with respect to state ambient air quality standards for ozone (1-hour and 8-hour) and for airborne particulate matter less than 10 microns in diameter. Santa Barbara County is considered in attainment or unclassified for all national ambient air quality standards.

San Luis Obispo County is non-attainment for the state ambient air quality standards for ozone and particulate matter less than 10 microns in diameter. It is in attainment for the state standards for particulate matter less than 2.5 microns in diameter. San Luis Obispo County is in attainment for the federal standards for particulate matter less than 10 microns in diameter and particulate matter less than 2.5 microns in diameter. The eastern portion of the county is non-attainment for the federal ozone standard, due to transient emissions originating mainly in the Bay Area and Central Valley.

The project lies in a mostly rural area, with farmlands in San Luis Obispo County on the north side of the project limits and habitable dwellings in Santa Barbara County on the south side of the project limits.

### *Noise*

The existing land uses within the project area are single-family residences, multi-family residences, and commercial retail stores. The lands surrounding the existing bridge are mostly agricultural and fallow lands with one commercial paper processing facility northwest of the bridge location just across the border into San Luis Obispo County. The area south of the existing bridge is mostly residential encompassing the city of Guadalupe. The terrain is mostly flat agricultural fields, with little change in elevation throughout the project limits.

*Emergency Services*

Emergency services in the project vicinity are provided by the Guadalupe Fire Department, Guadalupe Police Department, Santa Barbara County Sheriff's department and the California Highway Patrol – Santa Maria Office.

*Traffic and Transportation*

State Route 1 provides access to State Route 166 to the south and local roadways along the Route 1 alignment. The Santa Maria River Bridge provides a critical river crossing for the surrounding areas in the vicinity of the project site. The next nearest river crossing is on Bonita School Road, about 4 miles east.

The existing bridge is open to vehicle and cyclist traffic. There is no designated pedestrian access on the existing bridge.

*Community Character*

The city of Guadalupe gateway monument "welcome sign" is within the project limits, located on the northbound side of Route 1, just south of 12th Street. The monument is owned and maintained by the city of Guadalupe. It was constructed in 2019 and is one of three that the city owns. The monument is constructed of concrete blocks and cement, with a mix of architectural features. The base of the monument is concrete that has been shaped and painted/colored to mimic sand dunes. The monument is a beige color, adorned with ceramic tiles that display the city's name, logo and local landscape.

The monument is within state right-of-way, and the city of Guadalupe obtained a permit from Caltrans to install the monument. When Caltrans issued the permit to the city of Guadalupe, it included a set of conditions. One of the conditions of the permit required the city of Guadalupe to relocate the monument at Caltrans' request. Based on Caltrans' current Gateway Monument Policy, Caltrans is obligated to:

1) Encourage gateway monuments to be located outside of the state right-of-way.
2) Consider the installation of community identifiers before allowing gateway monuments on the state right-of-way.

## Environmental Consequences

*Parks and Recreational Facilities*

During construction, access to Le Roy Park would not be affected because the project limits do not include 11th Street. Construction-related activities would produce noise that may be audible to users of Le Roy Park. Though the noise may be audible, construction noise would be temporary and intermittent. Construction-related noise is not anticipated to affect park operation or use. Construction-related activities would generate fugitive/errant dust that could be windblown toward the park. However, fugitive/errant dust generated during project construction would be temporary and intermittent and is not expected to adversely affect park operation or use.

### *Air Quality*

Certain construction activities can be the source of temporary impacts on air quality and result in the generation of air pollutants. These potential impacts result from activities that occur during demolition, grading, and paving. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. Equipment emissions can vary substantially day-to-day, depending on the level of activity, the specific type of operation, and the prevailing weather conditions. Use of heavy equipment during project construction can also result in fugitive dust that may temporarily impact local air quality.

Earthwork would be required for the improvements associated with this project, and some dust generation would be expected from the earthwork component of this project. Specifically, removing the existing bridge structure would require demolition activities that could create nuisance dust near the actual work location.

Due to the small scope and footprint of work and its location, the project presents minimal potential to expose nearby residents to inhalable construction emissions.

With application of standard construction dust and emission minimization practices and procedures, it is anticipated that project emission of particulate matter (dust) and equipment emissions will be well within the Santa Barbara County Air Pollution Control District and San Luis Obispo County Air Pollution Control District daily thresholds.

### *Noise*

It is anticipated that noise from construction activities may intermittently dominate the noise environment in the area immediately surrounding the project. Noise impacts from construction of the project are a function of the noise generated by construction equipment, the location and sensitivity of nearby receptors, and the timing and duration of noise-generating activities. It is possible that nearby residences may be exposed to temporary construction noise during project construction.

No adverse noise impacts from construction activities are anticipated because construction noise would be short term, intermittent, and overshadowed by local traffic noise. In addition, Caltrans Standard Specifications for noise control will be implemented to reduce the potential for noise disturbances to nearby residences.

### *Emergency Services*

During project construction, bridge access for emergency services will be maintained. Traffic control during project construction may result in delays to emergency service response, but delays would be temporary and minor. The project would not affect emergency service access to interconnecting roads from State Route 1or local roads in the vicinity of the project.

Any temporary lane closures would be communicated to the appropriate fire, law enforcement, and other emergency service agencies to ensure continuation of adequate service. A Transportation Management Plan would be implemented to assist emergency service providers during project construction and minimize response-time delays.

*Traffic and Transportation*

During construction, temporary lane closures on State Route 1 may result in temporary and intermittent traffic delays for travelers in the project area. Effects would be minor as State Route 1 would remain open throughout the construction of the bridge.

*Community Character*

The roadway approaching the bridge would need to be adjusted to match the new bridge alignment. State Route 1 would shift eastward. The new alignment would then conflict with the gateway monument that is south of 12th Street. Based on current project design, it is anticipated that the project would require the removal of the monument from the state right-of-way, which may result in a temporary impact to community character.

Caltrans would coordinate with the City to investigate the potential to install community identifiers as a substitute for the monument. If community identifiers are to be installed, they would be placed within the project limits and incorporated into the project design. It is anticipated that the use of community identifiers would improve community character and increase community presence to the traveling public.

## Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures will be implemented to reduce potential impacts as a result of project construction activities.

*Parks and Recreational Facilities*

1) Avoidance and minimization measures required to address temporary construction-related impacts to air quality and noise would be applicable to minimize potential construction-related impacts on parks and recreational facilities.

*Air Quality*

2) The Caltrans Standard Specification section pertaining to dust control and dust palliative application is required for all construction contracts and would effectively reduce and control construction-emission impacts.

3) The provisions of Caltrans Standard Specification, Section 10-5 “Dust Control” and Section 14-9 “Air Pollution Control,” require the contractor to comply with all

California Air Resources Board and San Luis Obispo County Air Pollution Control District rules, ordinances, and regulations.

4) The project-level Storm Water Pollution Prevention Plan will address water pollution control measures that cross-correlate with standard dust emission minimization measures such as covering soil stockpiles, watering haul roads, watering excavation, and grading areas, and so on.

5) A Debris Containment and Collection Plan will be included in the project standard special provisions to effectively capture and collect all demolition debris and waste materials, preventing any material from entering the creek channel or migrating offsite during windy conditions. All stockpiled construction debris should at a minimum be covered daily or be off hauled as soon as possible.

6) If inspections during construction determines that lead paint or asbestos is present, the project may need to implement Work Area Monitoring of the ambient air and soil in and around the work area to verify the effectiveness of any containment system.

*Noise*

7) Project construction would be conducted in accordance with Caltrans Standard Specification Section 14.8-02.

8) The following measures would be included to minimize noise impacts:

    a. Each internal combustion engine, used for any purpose on the job, or related to the job, will be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine will be operated on the job site without an appropriate muffler.

    b. Notify surrounding residences in advance of the construction schedule when unavoidable construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice will be given 2 weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The District 5 Public Information Office posts notices of the proposed construction and potential community impacts after receiving notice from the resident engineer.

9) The following measures will be implemented to minimize temporary construction impacts:

    a. Limit all phases of construction to acceptable hours, Monday through Friday. Night work will not be conducted unless it is necessary for project completion.

    b. Shield especially loud pieces of stationary construction equipment.

    c. Locate portable generators, air compressors, etc., away from sensitive noise receptors.

d. Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.

e. Place heavily trafficked areas (such as the maintenance yard) and construction-oriented operations in locations that would be the least disruptive to surrounding sensitive noise receptors.

f. Ensure that all equipment items have the manufacturers' recommended noise abatement measures—such as mufflers, engine covers, and engine vibration isolators—intact and operational. Internal combustion engines used for any purpose on or related to the job will be equipped with a muffler or baffle of a type recommended by the manufacturer.

g. Consult District noise staff if complaints are received during the construction process.

*Emergency Services*

10) During project construction, Caltrans resident engineer will contact and inform local emergency service providers of construction activities that could potentially affect emergency access or emergency response times. Caltrans resident engineer will coordinate with emergency responders to avoid potential conflicts with establish emergency response plans.

11) The project will employ temporary traffic control and temporary traffic management during construction to ensure emergency access through the project site and on State Route 1 is maintained.

*Traffic and Transportation*

12) Traffic access through on State Route 1 will be maintained during project construction. The project will employ temporary traffic control and temporary traffic management to allow traffic to access the project limits.

*Community Character*

13) The project will incorporate aesthetic treatments and/or design features that may be required as part of any planned community identifiers.

## 2.5 Cumulative Impacts

### Regulatory Setting

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

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

California Environmental Quality Act Guidelines Section 15120 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under the California Environmental Quality Act can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under the National Environmental Policy Act can be found in 40 Code of Federal Regulations Section 1508.7.

## Affected Environment

The information and analysis in this section contains information taken from the Natural Environment Study completed for the project on November 22, 2019.

The first step in conducting a cumulative impact analysis is to identify resources that have the potential to be affected by the project or are currently in poor or declining health. For the Santa Maria River Bridge replacement project, the following resources have the potential to be affected by the project and are currently in poor and declining health: La Graciosa thistle critical habitat and California red-legged frog species.

For the second step, a Resource Study Area is identified for each affected resource. The boundary of the Resource Study Area for a cumulative impact analysis is often broader than the boundary used for project-specific analysis, typically consisting of a geographic region or designated area.

Cumulative impact analyses are then conducted by considering the effects of past, present, and reasonably foreseeable future projects within the Resource Study Area that may have or could have an impact on resources identified in the first step.

### *La Graciosa Thistle Critical Habitat*

The La Graciosa thistle critical habitat was first designated on March 17, 2004, which included approximately 41,000 acres in San Luis Obispo and Santa Barbara Counties. Designation of the critical habitat was revised in November 3, 2009, with approximately 24,000 acres in San Luis Obispo and Santa Barbara Counties. The intent of the Designated Critical Habitat is to conserve the physical and biological features required to sustain populations of La Graciosa thistle by identifying areas

that contain sufficient elements to support the life and growth of the species. There are currently six separate Designated Critical Habitat units for La Graciosa thistle.

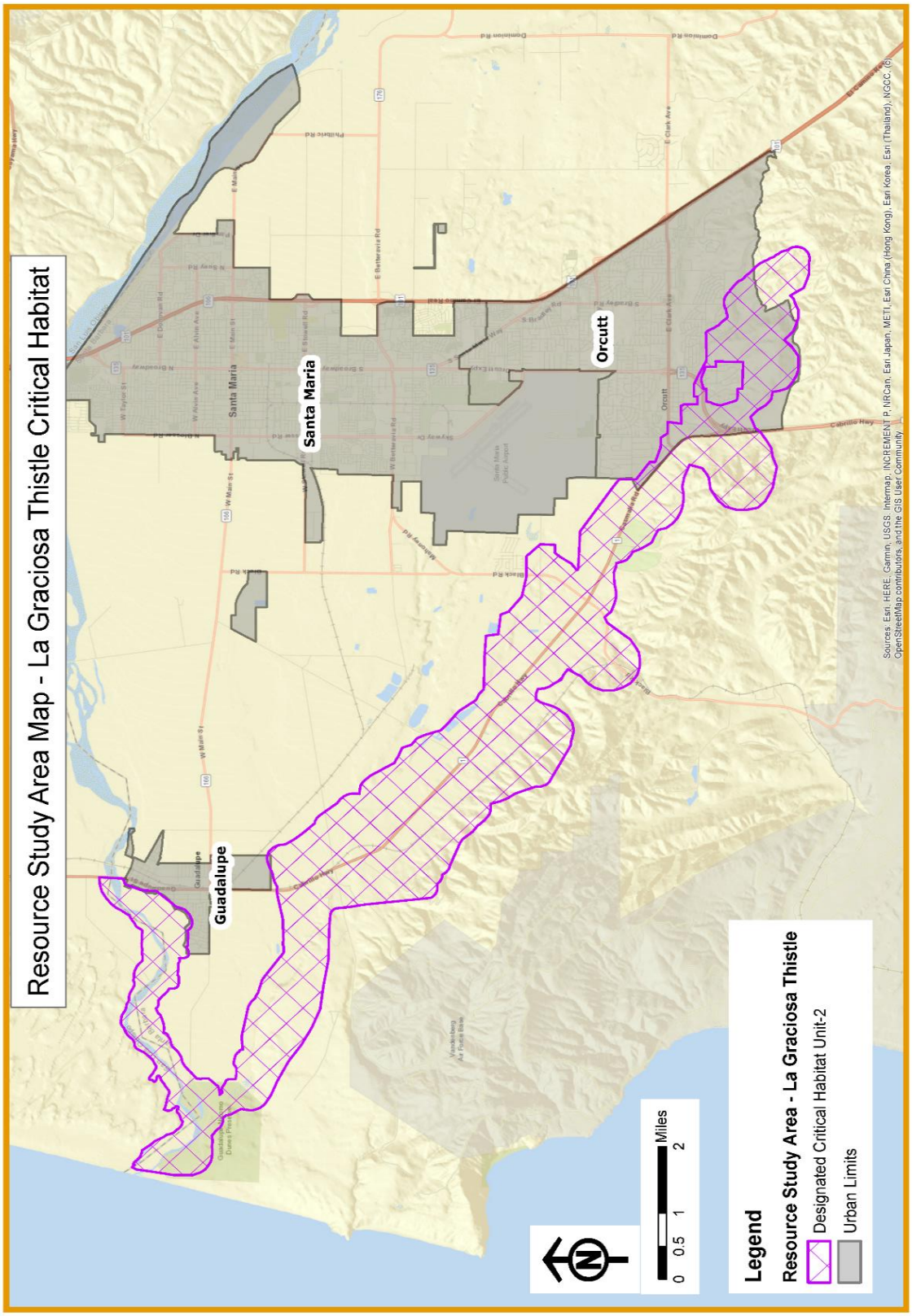
The project area is partially within Unit-2, also known as the Santa Maria River-Orcutt Creek unit, of the Designated Critical Habitat for La Graciosa thistle. For this analysis, Unit-2 of the Designated Critical Habitat for La Graciosa thistle is used as the Resource Study Area (see Figure 2.5-1).

For most of its entirety, Unit-2 is within the north-western portion of Santa Barbara County and is within the Cal Water – Santa Maria Valley Planning Area. The size of Unit-2 is approximately 13,000 acres and runs for a length of approximately 15 miles. From the existing Santa Maria River Bridge, the boundary of Unit-2 extends west, following the Santa Maria River channel, where it reaches the Pacific Coast. From the coast, the boundary then extends in a roughly south-eastern direction, following Orcutt Creek and State Route 1, until it reaches the Town of Orcutt and ending at the northern limits of the Solomon Hills.

Unit-2 includes the north-western portion of the city of Guadalupe, the south-western portion of the Town of Orcutt, south-eastern portions of the Guadalupe sand dunes and northern portions of the Rancho Guadalupe Dunes Preserve. Much of Unit-2 contains rural lands that are zoned for agricultural use. A majority of the agricultural lands within Unit-2 are in involved in California's Williamson Act, which is an agricultural preservation program. Urban environments are adjacent to Unit-2 and urban development have occurred adjacent to or within Unit-2 in the past. There is the potential that future urban development may continue to occur adjacent to or within the existing boundaries of Unit-2.

The current health of the La Graciosa thistle critical habitat in Unit-2 is poor and the current trend is stable to a slight decline. Much of the land within Unit-2 is utilized for agricultural activities and very little of Unit 2 is considered undisturbed. However, the current stability is attributed to the presence of agricultural lands. Many of the agricultural lands are involved in agricultural preservation programs, which help deter future development projects and limits allowable farmland activities. There is still the potential for Unit-2 to be affected by development projects as a result of potential future growth in the region. New urban development could result in the loss of existing potential habitat and the increase presence of non-native species.

**Figure 2.5-1 – Resource Study Area for La Graciosa Thistle Critical Habitat**



### *California Red-Legged Frog Species*

The California red-legged frog was listed as a federally threatened species in 1996 and is considered a California species of special concern. The historic range for the California red-legged frog extended along the coast from southern Mendocino County and inland from the vicinity of Redding, California to northwestern Baja California, Mexico. Currently, California red-legged frogs are found mostly in the coastal streams and wetlands of Monterey, San Luis Obispo and Santa Barbara counties.

California red-legged frogs can be found in a variety of areas, including aquatic, riparian and upland habitats. The frogs can occur in suitable habitat areas within 2 miles of a breeding site because they use both riparian and upland habitats for foraging, shelter, cover and non-dispersal movement. It is estimated that this species has been eliminated from about 70 percent of its historic range due to habitat loss and possibly due to the introduction of non-native predatory species.

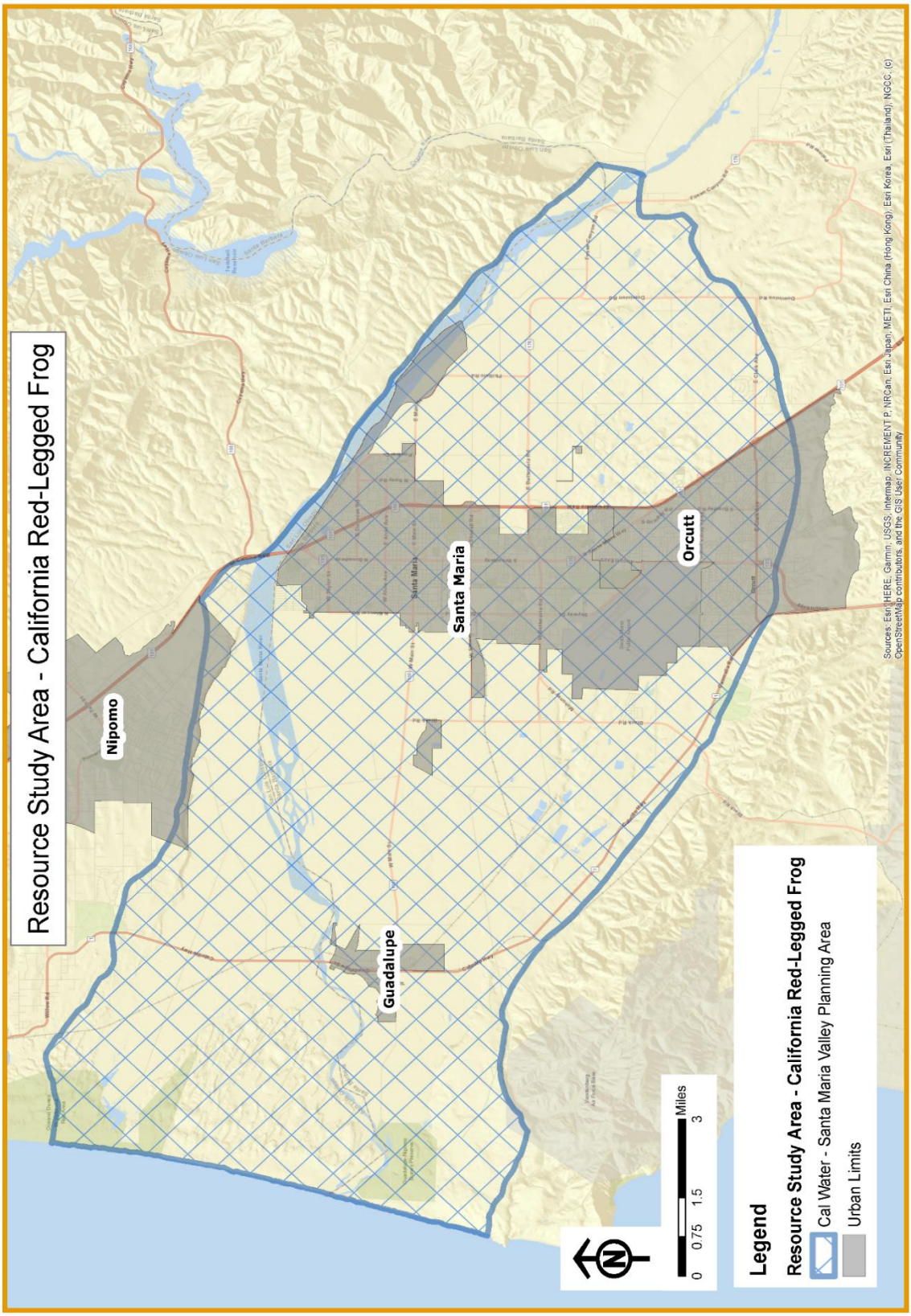
A Final Recovery Plan for this species was approved in 2002. According to the Recovery Plan for the California Red-legged Frog, delisting of the species could occur by 2025 if recovery criteria are met.

The Resource Study Area for California red-legged frog species is defined by the Cal Water – Santa Maria Valley Planning Area (see Figure 2.5-2), which is a subset of the greater Santa Maria Watershed and is within the Santa Maria River – Santa Ynez River Core Area identified by the Final Recovery Plan for the species.

The planning area is within the south-eastern corner of San Luis Obispo County and within the north-western corner of Santa Barbara County. The planning area is bounded by the Pacific Ocean on the west, the Casmalia and Solomon Hills along the south, the Suey and Tepusquest ridges along the east, and the Nipomo Mesa on the north. The Santa Maria River flows north-west along the eastern boundary before heading south-west towards the ocean. The planning area contains a mix of rural and urban environments. Urban environments in the planning area are focused along major roadways. A majority of the planning area is rural and is primarily utilized for agricultural practices. The planning area contains the city of Santa Maria, the city of Guadalupe, the Town of Orcutt and part of the community of Nipomo. The planning area also contains portions of the Guadalupe-Nipomo sand dunes, the entire Santa Maria Valley and the entire Santa Maria River.

Within the Cal Water – Santa Maria Valley Planning Area, multiple California red-legged frog occurrences have been documented in the California Natural Diversity Database. There are currently no protected California red-legged frog habitats within the planning area.

**Figure 2.5-2 – Resource Study Area for California Red-Legged Frog**



The current health of the California red-legged frog species within the Cal Water – Santa Maria Valley Planning Area is considered poor, and the overall trend for the species in the region is anticipated to be in decline. Past occurrence records suggest that existing California red-legged frogs are inhabiting marginal areas between or in agricultural fields in the region. The primary reason for the anticipated declining trend is the potential for the continuation of future development in the Santa Maria Valley, which would remove any remaining potentially suitable dispersal, refuge or breeding habitats.

## Environmental Consequences

Potential direct and indirect impacts to identified resources as a result of the proposed project as well as result of other current and reasonably foreseeable projects are evaluated as part of the cumulative analysis.

Information on current and reasonably foreseeable projects is based on what was obtainable from Caltrans, the city of Santa Maria, The city of Guadalupe, the Town of Orcutt, the County of Santa Barbara and the County of San Luis Obispo.

*Current and Reasonably Foreseeable Projects:*

- The Neighborhoods of Willow Creek and Hidden Canyon

  This project occurs within both Resource Study Areas for La Graciosa thistle critical habitat and California red-legged frog. This project is located in Santa Barbara County, approximately 1 mile west from the Town of Orcutt. The project is located on the south side of Route 1 between Solomon Road and Black Road. The project proposes to develop two new neighborhoods around the existing Rancho Maria Golf Club. The project would occur on currently undeveloped parcels, totaling approximately 177 acres. Approximately 80 acres would be developed into 146 single family residences and the remaining 97 acres would be left as undisturbed open space. A Subsequent Environment Impact Report was prepared in June of 2019 and was publicly circulated for review and comments from June 21, 2019 to August 5, 2019. Approval of the Environmental Impact Report is pending.

- Santa Barbara County Public Works Department – Laguna County Sanitation District, Final Habitat Conservation Plan

  This project occurs within both Resource Study Areas for La Graciosa thistle critical habitat and California red-legged frog. The final habitat conservation plan is located around the existing wastewater reclamation plant that is located at the end of Dutard Road, approximately 2 miles west from the Santa Maria Airport. The habitat conservation plan was developed for the construction, operation and maintenance of existing and proposed facilities on and off the Laguna County Sanitation District property. The plan provides an assessment of the existing habitat in the planning area, evaluates the effects of the proposed development and operation and maintenance activities on special status species and offers

mitigation plans to offset habitat loss and/or incidental take of special status species that could result from proposed development, operation or maintenance activities. The final habitat conservation plan was completed in May 2017.

- Solomon Canyon Capital Preventive Maintenance Project

  This project occurs within both Resource Study Areas for La Graciosa thistle critical habitat and California red-legged frog. The project is in Santa Barbara County, on State Route 1 from Solomon road near the town of Orcutt to the intersection of State Route 1 and State Route 166 in the city of Guadalupe. The project is a Caltrans maintenance project (EA:05-1G130) that is proposing to overlay the existing highway pavement, as well as repairing heavily distressed pavement on a 20-mile segment of State Route 1. The project would also involve the following: install shoulder backing, upgrading existing guardrails, repairing, replacing, or upgrading dikes and curbs; replace traffic striping; upgrading and raising existing drainage inlets. Project activities will occur within existing Caltrans right of way and on areas already disturbed by past projects and maintenance activities. Project activities are limited to the existing highway surface and adjacent unpaved surfaces. A Natural Environment Study was completed for the project in September of 2017. The Environmental Document for the project was approved in May of 2018. The project design plans have been approved in October of 2019. Project construction is anticipated to begin July of 2020.

- Solomon Canyon Rumble Strip & Shoulder Widening Project

  This project occurs within both Resource Study Areas for La Graciosa thistle critical habitat and California red-legged frog. The project is in Santa Barbara County, on State Route 1 from the intersection of State Route 1 and State Route 135 near the Town of Orcutt to the intersection of State Route 1 and State Route 166 in the city of Guadalupe. The project is a Caltrans safety project (EA:05-1H610) that is proposing to install wider shoulders and rumble strips along the existing highway pavement to reduce the number and severity of roadside departure crashes. The project is currently conducting environmental investigations and an approved project document is not anticipated until April 2021. The project is not anticipated to begin construction until 2024.

- Municipal Projects

  Various municipal project occurs within both Resource Study Areas for La Graciosa thistle critical habitat and California red-legged frog. The city of Santa Maria, the city of Guadalupe and the Town of Orcutt is located within the Santa Maria Valley. These municipalities have within their boundaries several development plans that may include, urban development, infrastructural development, agricultural development, and recreational development. Municipal development plans are often part of the general or community plans. Many of these development plans proposed future projects that are anticipated to support the wellbeing of the municipality. Often these future projects would occur on the

fringes or on infills of the municipality and of varying scope and scale. Although specific projects within the municipality may not yet be identified in the plans, the plans do identify the types of projects anticipated for a location. Development projects occurring on infills are anticipated to have little or no potential to effect natural resources, although may have the potential to support non-native species. Development projects occurring on the fringes or outside of the urban boundary have greater potential to affect existing natural resources as these developments would most likely result in the loss of potential species or habitats. It is anticipated that any proposed development project within each municipality would require site investigations and that any special status species or habitats identified on site would need to be considered for protection.

*La Graciosa Thistle Critical Habitat*

- The Neighborhoods of Willow Creek and Hidden Canyon

  Based on the Subsequent Environmental Impact Report, La Graciosa thistle is identified as a special status species that has the potential to occur within the project site. The report states that potentially significant impacts to special status plant species as a result of the project can be mitigated to less than significant. The project plans to avoid impacts to special status plant species to the greatest extent possible. If special status plant avoidance is not feasible, the project plans to mitigate at a ratio of 2:1 for species or habitats. The report does not call out measures specifically for La Graciosa thistle species or habitat.

- Santa Barbara County Public Works Department – Laguna County Sanitation District, Final Habitat Conservation Plan

  Based on the final habitat conservation plan, the planning area does contain a critical habitat unit for La Graciosa thistle. It is anticipated that temporary and permanent activities associated with the plan could result in direct and indirect impacts to La Graciosa thistle critical habitat. The activities associated with the plan have the potential to adversely affect critical habitat for La Graciosa thistle of varying conditions. However, La Graciosa thistle species have not been recorded within the planning site. The plan anticipates that protective measures will be employed for La Graciosa thistle critical habitat to avoid or minimize potential impacts. In addition, any disturbed critical habitat areas would be restored to mitigate for impacts.

- Solomon Canyon Rumble Strip & Shoulder Widening Project

  Based on the Natural Environment Study completed for the project, the project is partially located within Unit-2 of the federally designated critical habitat for La Graciosa thistle. The project is anticipated to result in permanent and temporary impacts to La Graciosa thistle designated critical habitat. Permanent impacts would result from the installation of new roadway features that would be placed outside of the existing paved roadway. Temporary impacts would result from construction activities such as equipment operation, worker foot traffic, and

temporary staging. However, the existing critical habitat within the project limits are ruderal and already highly disturbed. In addition, no La Graciosa thistle was observed within the project area during appropriately timed surveys and none are anticipated to occur within the project area. The project is not anticipated to adversely impact La Graciosa thistle or potential critical habitat within the project area.

- Solomon Canyon Rumble Strip & Shoulder Widening Project

  Although environmental investigations have not been completed for this project, it is anticipated that the project is located within Unit-2 of the federally designated critical habitat for La Graciosa thistle based on the project location. As this project would occur in the same area as the Solomon Canyon Capital Maintenance Project, it is anticipated that this project would result in similar findings for La Graciosa thistle and its critical habitat. It is thus anticipated that this project would not result in project related impacts to La Graciosa thistle or its critical habitat within the project limits as conditions in the project area are already in poor or disturbed condition.

- Municipal Development Projects

  The city of Guadalupe and the Town of Orcutt are adjacent to the Resource Study Area for La Graciosa thistle critical habitat. There is the potential for municipal development projects to directly or indirectly affect designated critical habitat areas. It is anticipated that municipal projects occurring within the boundaries of the municipality would not drastically affect designated critical habitat areas. However, it is anticipated that the future growth trend of existing municipalities has the potential to negatively affect existing La Graciosa thistle critical habitats. It is anticipated that any development projects that have the potential to affect any federally designated critical habitats may require U.S. Fish and Wildlife Service Section 7 consultation for threatened and endangered species review, along with possible mitigation measures to offset potential impacts.

Based on the above listed projects, Unit -2 of the designated critical habitat for La Graciosa thistle is and will continue to be impacted. The disturbances include permanent and temporary impacts to designated critical habitat areas. However, some of the critical habitat areas that are being disturbed are in relatively poor condition or are not anticipated to support La Graciosa thistle. Projects that have the potential to disturb critical habitat areas capable of supporting La Graciosa thistle are proposing avoidance, minimization and/or mitigation measures to offset project impacts. Based on the analysis of cumulative impacts to La Graciosa thistle critical habitat in the Resource Study Area, cumulative impacts are occurring. However, each project is expected to offset their contribution to cumulative impacts through project avoidance, minimization or mitigation measures.

It is anticipated that the proposed Santa Maria Bridge replacement project would not result in substantial contribution to the cumulative impact on the La Graciosa thistle

critical habitat within the Resource Study Area. Although the proposed project would result in temporary disturbance to potential La Graciosa thistle critical habitat, temporary disturbed areas would be revegetated and restored to conditions that would potentially improve upon the existing conditions for La Graciosa thistle critical habitat as discussed in Section 2.3.5, Threatened and Endangered Species. In addition, the proposed project is not anticipated to result in permanent impacts to La Graciosa thistle critical habitat.

*California Red-Legged Frog Species:*

- The Neighborhoods of Willow Creek and Hidden Canyon

  Based on the Subsequent Environmental Impact Report, occurrences of California red-legged frog have been documented in and near the project area. The project anticipates that frogs may be present and utilizing potential habitat within the project site. The report states that impacts to California red-legged frog are potentially significant but can be mitigated for. The project plans to avoid impacts to frog species to the greatest extent possible and that potential frog habitats within the project site will be identified and avoided. In addition, the project plans to establish an off-site conservation easement as compensatory mitigation to offset impacts to California red-legged frog and its associated habitat.

- Santa Barbara County Public Works Department – Laguna County Sanitation District, Final Habitat Conservation Plan

  Based on the final habitat conservation plan, an Incidental Take Permit from California Department of Fish and Wildlife is anticipated for California red-legged frog. Although the planning area is not within or near any designated critical habitat units, individual frog species have been documented within and around the planning area. The habitat conservation plan anticipates that individual frog species may be traversing the planning area during dispersal or utilizing potential habitats within and around the planning area. Activities covered in the habitat conservation plan would result in both temporary and permanent impacts to California red-legged frog upland refuge and or dispersal habitats. In addition, indirect impacts to frog species could result from construction activities or normal plant operations. The habitat conservation plan proposes several avoidance, minimization and mitigation measures to address impacts to California red-legged frogs, which includes a conservation easement to permanently protect approximately 132 acres of upland refuge and aquatic breeding habitat.

- Solomon Canyon Capital Preventive Maintenance Project

  Based on the Natural Environment Study, the project is anticipated to result in minimal direct and indirect impacts to California red-legged frogs. The potential to impact the frogs are anticipated to be low due to the lack of presence during reconnaissance surveys for the project. However, the presence of the frog is inferred as occurrence records does indicate their potential presence in the

project vicinity. The project is proposing avoidance and minimization measures to protect individual frog species that may be encountered during project construction, but compensatory mitigation is not anticipated for the project.

- Solomon Canyon Rumble Strip & Shoulder Widening Project

  Although environmental investigations have not been completed for this project, it is anticipated that California red-legged frogs have the potential to be found within the project area based on the project location. As this project would occur in the same areas as the Solomon Canyon Capital Maintenance Project, it is anticipated that this project would result in similar findings for California red-legged frog. It is thus anticipated that this project will infer the presence of the frogs within the project limits and that appropriate avoidances and minimization measures be implemented for the project to protect individuals.

- Municipal Development Projects

  The city of Santa Maria, the city of Guadalupe, the Town of Orcutt and the community of Nipomo is within the Resource Study Area for California red-legged frog. There is the potential for municipal development projects to directly and indirectly affect California red-legged frog species. It is anticipated that municipal projects have the potential to affect the mortality of California red-legged frog species as a result of construction activities if they are found within the project site. Municipal projects also have the potential to disrupt refuge sites or dispersal routes that may be utilized by California red-legged frogs. In addition, it is anticipated that the future growth trend of existing municipalities in the area is likely to result in potentially negative effects to California red-legged frog species. Municipal projects that have the potential to impact California red-legged frog species will require U.S. Fish and Wildlife Service Section 7 consultation for threatened and endangered species review and employ measures to avoid impacting individual species.

Based on the above listed projects, there is the potential for California red-legged frogs to be impacted within the Resource Study Area. However, it is very likely that projects will adopt measures to avoid, minimize and mitigate potential impacts to California red-legged frog species. Projects occurring in the Resource Study area have the potential to disrupt California red-legged frog refuge sites, breeding sites and dispersal routes, which could result in negative affects to California red-legged frog species. It is also anticipated that California red-legged frogs in the Resource Study Area could eventually be displaced as a result of future development in the region, which would result in potentially significant cumulative impacts to California red-legged frog species. Based on the analysis of cumulative impacts to California red-legged frog species in the Resource Study area, California red-legged frog species are anticipated to continue to decline, and there is a high potential for cumulative impacts to California red-legged frog species. However, each project is anticipated to include avoidance, minimization or mitigation measures to protect California red-legged frogs from potentially cumulative impacts.

It is anticipated that the proposed Santa Maria Bridge replacement project has the potential to contribute to cumulative impacts to California red-legged frog species within the Resource Study Area as a result of construction related activities. However, the project is not anticipated to result in a substantial contribution to cumulative impacts to California red-legged frog within the Resource Study Area. The project would employ measures to avoid and minimize potential impacts to California red-legged frogs, during project construction. In addition, the project would not permanently impact California red-legged frog refuge sites, breeding sites or dispersal routes in the vicinity of the project. The project will include measures to protect existing potential habitats and restore areas disturbed during construction as discussed in Section 2.3.5, Threatened and Endangered Species, which have the potential to improve existing conditions for California red-legged frogs in the long term.

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# Chapter 3 CEQA Evaluation

## 3.1 Determining Significance under CEQA

The proposed project is a joint project by Caltrans and the Federal Highway Administration and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (known as CEQA) and the National Environmental Policy Act (known as NEPA). The Federal Highway Administration's responsibilities for environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S. Code Section 327 (23 U.S. Code 327) and the Memorandum of Understanding dated December 23, 2016 and executed by the Federal Highway Administration and Caltrans. Caltrans is the lead agency under CEQA and NEPA.

One of the main differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an Environmental Impact Statement, or a lower level of documentation, will be required. NEPA requires that an Environmental Impact Statement be prepared when the proposed federal action (the project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an Environmental Impact Statement, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental document.

CEQA, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Every significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an Environmental Impact Report. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

## 3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant with Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 to provide you with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

### 3.2.1 Aesthetics

***CEQA Significance Determinations for Aesthetics***

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

*Less Than Significant Impact*

The project would affect views for a relatively short duration. The proposed bridge would have taller bridge and pathway rails, which would cause a minimal effect on views of scenic vistas. The bridge deck profile would be raised somewhat, which would allow for a higher vantage point of the surrounding landscape. This higher vantage point would also, however, result in overhead utility wires being more directly in the view and potentially interfering with the quality of the scenic vista. (Visual Impact Assessment, March 15, 2019)

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

*No Impact*

The project limit is not classified as an Officially Designated State Scenic Highway. The project would remove vegetation and trees during construction and replace them with native vegetation at the end of construction. (Visual Impact Assessment, March 15, 2019)

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

*Less Than Significant Impact*

Although the existing Santa Maria River Bridge is a dominant visual element in the immediate project vicinity, it is not a particularly memorable nor architecturally unique structure. The existing bridge rail does, however, contribute to the rural visual character of the setting in terms of its age, open appearance, rail-and-picket style, and materials.

Proposed project elements above the bridge deck such as the barrier and railing would be readily visible from the roadway. By themselves, these types of elements are not uncommon and would not be seen as unexpected visual elements in a highway setting. The new barrier and railing would be taller than the existing barrier; when seen with the wider road shoulders and pathway, the new barrier would increase the visual scale and engineered appearance of the structure. These new elements would create a more utilitarian appearance and would add a degree of visual clutter to the setting. As a result, these visual changes would cause a minor reduction of rural character and visual quality to the immediate project area. Although existing riparian trees and other plants would be removed by the project, any vegetation removal would be fully replaced and established. As a result, the riverbanks would, over time, be fully revegetated and result in a somewhat natural-appearing visual condition. Construction access roads and disturbed areas will be restored to natural-appearing landforms to reduce the noticeability of disturbance and engineered alterations. (Visual Impact Assessment, March 15, 2019)

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

*No Impact*

The project does not include new lighting or sources of glare and would therefore have no effect on daytime or nighttime views. (Visual Impact Assessment, March 15, 2019)

### 3.2.2 Agriculture and Forest Resources

#### *CEQA Significance Determinations for Agriculture and Forest Resources*

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

*Less Than Significant Impact*

Based on Santa Barbara County and San Luis Obispo County maps provided by the California Department of Conservation Farmland Mapping and Monitoring Program, the project location is adjacent to Prime Farmland. The project would result in the conversion of Prime Farmland to non-farmland use.

Within Santa Barbara County, the project would require partial acquisition of approximately 0.08 acre out of an approximately 15-acre farmland property, resulting in the loss of approximately 0.53 percent of farmable land. However, the partial acquisition is not anticipated to prevent the farmland property from continuing agricultural practice.

Within San Luis Obispo County, the project is anticipated to require partial property acquisition totaling approximately 0.97 out of approximately 590 total acres shared between two farmland properties. However, the partial acquisition is not anticipated to prevent farmland properties from continuing agricultural practice.

Although the project would result in the minor acquisition of farmland, adequate compensation would be provided for property acquisition, including relocation assistance for residents and businesses as required by law. It is anticipated that the project will not be required to acquire the entire properties involved. Caltrans right-of-way agents would work with affected property owners to address issues of concern and compensation of their property's fair market value and any temporary loss of production due to the project. In addition, avoidance and minimization measures (detailed in Section 2.1.1, Farmland) would be implemented to reduce potential impacts to farmland resources. (Farmland Assessment Memo, April 17, 2019)

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

*Less Than Significant Impact*

The project would result in the conversion of land currently under Williamson Act contract. In San Luis Obispo County, farmland surrounding the project area is within the Oso Flaco Agricultural Preserve. According to the California Department of Conservation, farmland within the agricultural preserve is classified as Williamson Act prime and non-prime agricultural land.

Both Assessor's Parcel Number 092-051-020 and Assessor's Parcel Number 092-051-026 are within the Oso Flaco Agricultural Preserve and are currently under Williamson Act contract. Because the project meets the necessary criteria allowing for acquisition of Williamson Act-protected farmland (detailed in Section 2.1.1, Farmland), the project may acquire the partial acquisition of Williamson Act-protected farmland. In addition, avoidance and minimization measures (detailed in Section 2.1.1, Farmland) would be implemented to reduce potential impacts to farmland resources. (Farmland Assessment Momo, April 2019)

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

*No Impact*

Based on San Luis Obispo County and Santa Barbara County zoning and land use maps, the project is not within any land zoned or used for forest

land or timberland. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

*No Impact*

Based on San Luis Obispo County and Santa Barbara County zoning and land use maps, the project is not within any land zoned or used for forest land or timberland. Therefore, the project would not result in the loss of forest land to non-forest use.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

*Less Than Significant Impact*

Although the project would result in the partial acquisition of farmland adjacent to the existing highway, the condition of unaffected farmlands in the project vicinity would not change as a result of the project, and there would be no additional conversion of existing agricultural land to non-agricultural use outside of the project limits. (Farmland Assessment Memo, April 17, 2019)

### 3.2.3 Air Quality

***CEQA Significance Determinations for Air Quality***

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

*No Impact*

The project is consistent with the San Luis Obispo Air Pollution Control District attainment goals as stated in the State Implementation Plan (2001 Clean Air Plan and the 2012 CEQA Air Quality handbook amended in 2017).

The project is also consistent with the Santa Barbara County Air Pollution Control District attainment goals as stated in the State Implementation Plan (the 2015 Ozone Plan and the Scope and Content of Air Quality Sections in Environmental Document amended in 2017).

The proposed bridge replacement project would not conflict with or obstruct implementation of an applicable air quality plan. (Air Quality and Green House Gas Memo, April 10, 2018)

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

*Less Than Significant Impact*

Santa Barbara County is considered non-attainment for the state ambient air quality standard for Ozone and for airborne particulate less than 10 microns in diameter. Santa Barbara County is in attainment for all federal ambient air quality standards.

San Luis Obispo County is non-attainment for the state ambient air quality standard for Ozone and for airborne particulate matter less than 10 microns in diameter. San Luis Obispo County is in attainment for the state ambient air quality standard for particulate matter 2.5 microns in diameter. San Luis Obispo County is in attainment for federal ambient air quality standard for airborne particulate less than 10 microns in diameter and 2.5 microns in diameter. The eastern portion of San Luis Obispo County is non-attainment for the federal Ozone standard, due to transient emissions originating mainly from the bay area and central valley.

The project would result in a short-term temporary increase in air emissions and fugitive dust during the construction period. However, due to use of standard construction dust and emission minimization practices and procedures, it is anticipated that project emission of particulate matter (dust) and equipment emissions will be well within the Santa Barbara County Air Pollution Control District and San Luis Obispo County Air Pollution Control District daily thresholds. Therefore, the project would not violate any air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutants. (Air Quality and Green House Gas Memo, April 10, 2018)

c) Expose sensitive receptors to substantial pollutant concentrations?

*Less Than Significant Impact*

It is anticipated that there would be no difference in long-term air emissions with or without the project. The project is in a mostly rural area, but habitable dwellings are found in close proximity of the project limits within Santa Barbara County. The project would result in a short-term temporary increase in air emissions and fugitive dust during the construction period, which has the potential to affect sensitive receptors. However, due to use of standard construction dust and emission minimization practices and procedures, it is anticipated that project emission of particulate matter

(dust) and equipment emissions would be well within the Santa Barbara County Air Pollution Control District and San Luis Obispo County Air Pollution Control District daily thresholds. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations. (Air Quality and Green House Gas Memo, April 10, 2018)

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

*Less Than Significant Impact*

The project is anticipated to produce some degree of odors due to construction-related equipment and activities but is not expected to create objectionable odors. Odors resulting from project construction may be noticeable by residences within close proximity and to members of the public traveling through the project site during construction. It is anticipated that the project would not alter long-term emissions in the region with or without the project. Temporary construction emissions are anticipated to be well within the San Luis Obispo Air Pollution Control District and the Santa Barbara Air Pollution Control District daily thresholds.

In addition, it is anticipated that Caltrans Standard Specifications sections pertaining to air pollution control, emission reduction, dust control and dust palliative would be implemented for all construction activities, which would also effectively reduce the potential for objectionable odors.

### 3.2.4 Biological Resources

***CEQA Significance Determinations for Biological Resources***

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration Fisheries?

*Less Than Significant Impact with Mitigation Incorporated*

The project is not anticipated to impact La Graciosa thistle, which is a federally protected species. The project would temporarily impact up to 1.63 acres of federally designated La Graciosa thistle critical habitat, which represents less than 0.001 percent of the total designated critical habitat for the species. Temporary disturbance to federally designated critical habitat will be restored, and project related restoration efforts are anticipated to result in an improvement to existing habitat conditions.

Project activities occurring in the river will only be allowed when the river is dry and the project is anticipated to avoid impacts to California steelhead

species, which are federally listed as endangered. The project is anticipated to temporarily impact approximately 1.20 acres of Southern California steelhead critical habitat. Since the presence of the primary constituent elements of the critical habitat is entirely dependent on rains and whether water is released from the Twitchell Dam, work would only occur in the riverbed and bank when the river is dry. Project related disturbances on the riverbed and bank would be minimized and disturbed areas will be restored.

The project is anticipated to avoid impacting state or federally protected bird species, as vegetation and tree removal activities would be conducted outside of the typical bird nesting season. Project construction activities does have the potential to temporarily disturb nesting bird species if they are present in the vicinity of the project area. Potential disturbance to protected bird species would be minimized and replanting will be conducted to offset vegetation and tree removal.

The project has the potential to impact California red-legged frog, which is a state Species of Special Concern and federally listed as threatened. The project will implement measures to avoid and minimize potential impacts to California red-legged frogs. The project is also anticipated to result in temporary disturbance to potential California red-legged frog critical habitats. The project will restore critical habitat areas that have been temporarily disturbed by project activities.

The project will implement a variety of avoidance, minimization and mitigation measures to reduce the potential impacts to special status species and their associated habitat as discussed Section 2.3 of this document. These measures will include, but will not be limited to the following: preconstruction surveys, avoidance of sensitive areas, adjusting construction schedule around species breeding or migratory seasons, restricting work when water is present in the river, removal of non-native species, native plant replanting, species monitoring, site restoration, habitat enhancement, and habitat preservation. It is anticipated that all mitigation can occur within existing project limits. (Natural Environment Study, November 22, 2019)

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

*Less Than Significant Impact with Mitigation Incorporated*

The project would temporarily impact up to 3.18 acres of Santa Maria River streambed and vegetated stream bank. The project would also temporarily impact up to 6.63 acres of the existing riparian habitats within the project limits. Project related work in the streambed, vegetated streambank and

riparian habitats would occur during the dry season when the Santa Maria River is unlikely to be flowing. No wetlands or sensitive natural communities were identified during biological field surveys. Project activities are not anticipated to impact wetlands or sensitive natural communities.

The proposed project is anticipated to permanently affect riparian habitats, as a result of the new bridge structure within the channel of the Santa Maria River. However, the permanent footprint of the new bridge structure will be less than the existing bridge structure. The project will result in the reduction of human made elements in the river channel and have the potential to improve existing riparian habitat conditions. Although the project is anticipated to result in permanent impacts to riparian habitats, the project would result in a net benefit for riparian habitats. Therefore, mitigation for riparian habitats as a result of project related permanent impacts is not anticipated.

All streambank and riparian vegetations removed by project activities will be revegetated with native plant seed mix that is consisted with the existing natural community. Any trees removed as a result of the project will be replanted at a 1:1 ratio or at a 3:1 ratio, depending on the tree species and size. All construction related disturbances in the streambed would be regraded to match existing streambed conditions.

The project is not anticipated to result in substantial impacts to streambed, vegetated streambank or riparian habitats. Potential temporary impacts as a result of project construction activities would be avoided, minimized and mitigated for. These measures will include, but not limited to the following: habitat identification and avoidance, minimizing construction activities within project area, minimizing areas of disturbance, non-native species removal, native plant replanting, site restoration, habitat enhancement, habitat preservation and landscape improvements. It is anticipated that all project related mitigations can occur within existing project limits. (Natural Environment Study, November 22, 2019)

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

*No Impact*

A wetland delineation was performed for this project, and no state or federally protected wetlands were identified within the project limits. Therefore, the project would not affect wetlands.

However, the project is located within a river channel and work will occur around areas identified as riparian. The project will include measures to

avoid and minimize disturbances to riparian areas and the river channel. (Natural Environment Study, November 22, 2019)

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

*Less Than Significant Impact*

Detailed discussion regarding native resident wildlife species are found in Section 2.3 of this document.

The project is not anticipated to result in additional restriction to wildlife movement in the project area. The project would realign a roadway segment and construct a new bridge that would be of similar design to existing roadway and bridge conditions. The new roadway segment and bridge structure would still allow for continued wildlife access within the project area.

The project is not anticipated to increase impediments to existing native resident wildlife, migratory wildlife corridors or access to native wildlife nursery sites. The new bridge structure will require less structural elements in the river channel, which would reduce potential impediments to wildlife movement in the river channel.

The project has the potential to temporarily disturb established native resident wildlife. It is anticipated that the following wildlife are potentially utilizing the project area and have the potential to be temporarily disturbed or displaced during project construction: American badger, coast horned lizard, northern California legless lizard, pallid bar, western red bat, Townsend's big eared bat and nesting birds. The project will include measures to avoid and minimize potential temporary project impacts to wildlife species. It is anticipated that habitat restoration and reduction of human made elements in the river channel as a result of the project have the potential to improve wildlife utilization of the project area. (Natural Environment Study, November 22, 2019)

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

*Less Than Significant Impact*

Based on available General Plans for San Luis Obispo County and Santa Barbara County, both counties have policies to protect riparian zones. The project would result in temporary impacts to riparian zones, and appropriate avoidance and minimization measures will be incorporated as described in Section 2.3.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

*No Impact*

Based on available information from San Luis Obispo County and Santa Barbara County mapping data, the project is not within or next to a habitat conservation plan, natural community plan or other approved local, regional or state habitat conservation plan.

### 3.2.5 Cultural Resources

***CEQA Significance Determinations for Cultural Resources***

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

*No Impact*

The Santa Maria River Bridge was determined to be a Category 5 Bridge in the Caltrans Statewide Historic Bridge Inventory and is not considered a historic resource for the purposes of CEQA. There are no other historic resources within the project's area of potential effect. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource. (Cultural Resource Review, September 23, 2019)

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

*No Impact*

The field survey did not detect the presence of any archaeological resources visible on the surface. Also, the survey confirmed the substantial level of disturbance the project site has witnessed from past construction activities, suggesting a low probability for intact subsurface archaeological deposits. Therefore, the project would not cause a substantial adverse change in the significance of an archaeological resource. (Cultural Resource Review, September 23, 2019)

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

*No Impact*

Due to the high level of ground disturbance around the project site, there is a low probability that human remains would be encountered during construction. Therefore, the project is not anticipated to disturb human remains. If the project encounters human remains, California Health and

Safety Code Section 7050.5 states that further disturbances and activities will stop in any area suspected to overlie remains, and the county coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, which, pursuant to Public Resources Code Section 5097.98, will then notify the Most Likely Descendent. The person who discovers the remains will contact the District 5 Environmental Branch staff, so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. (Cultural Resources Review, September 23, 2019)

### 3.2.6 Energy

***CEQA Significance Determinations for Energy***

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

*Less Than Significant Impact*

The project would include Caltrans standard practices and reasonable measures that will reduce wasteful, inefficient, and unnecessary consumption of energy and non-renewable resources during project construction, such as turning off idling equipment and limiting materials transport. The project is not expected to require wasteful, inefficient or unnecessary consumption of energy resources during project construction that could potentially result in significant environmental impacts.

When compared with the existing deteriorating bridge structure, it is anticipated that the new bridge structure would require less maintenance and therefore less energy to ensure continued operation. The new bridge is not expected to require excessive consumption of energy resources for operation.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

*No Impact*

The project would not conflict with or obstruct the state or local energy plans (see Section 3.3, Climate Change).

### 3.2.7 Geology and Soils

***CEQA Significance Determinations for Geology and Soils***

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

*Less Than Significant Impact*

The potential for fault rupture is absent from the project site. According to the Alquist-Priolo Earthquake Fault Zoning Map, there are no known active faults in or near the immediate project area, and the project is in an area with a low potential for seismic-related ground failure. The nearest fault is the San Luis Range-Oceano fault, about 2.8 miles from the project site. (Structures Preliminary Geotechnical Report, November 7, 2016)

ii) Strong seismic ground shaking?

*Less Than Significant Impact*

California is subject to earthquakes, and the project area would experience strong seismic ground shaking in a large earthquake. However, the project would be designed according to Caltrans seismic standards, as provided in the Highway Design Manual, minimizing the risk from strong seismic ground shaking. (Structures Preliminary Geotechnical Report, November 7, 2016)

iii) Seismic-related ground failure, including liquefaction?

*Less Than Significant Impact*

The project has potential for liquefaction due to soil composition in the river channel. A detailed analysis of the liquefaction susceptibility will be undertaken as part of the preliminary design work to identify appropriate design measures. The project would be designed to resist the effects of liquefaction by using current Caltrans seismic design standards. (Structures Preliminary Geotechnical Report, November 7, 2016)

iv) Landslides?

*Less Than Significant Impact*

Based on the available topographic map of the project area, the project site is in a relatively flat area and away from any steep slopes. In addition, the project would not involve large cuts or fills with steep slopes that could potentially induce landslides.

b) Result in substantial soil erosion or the loss of topsoil?

*Less Than Significant Impact*

Ground-disturbing earthwork associated with construction could increase soil erosion rates and loss of topsoil. The potential for erosion is minimal because of the types of soil present in the project area. The Best Management Practices described in Section 2.2.1, Water Quality and Storm Water Runoff, would further minimize erosion and the loss of topsoil.

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

*Less Than Significant Impact*

The project is not expected to be on unstable soils, and the project would not result in onsite or offsite landslide, lateral spreading, subsidence, or collapse. The project does have potential for liquefaction, which could create unstable soils. However, a detailed analysis of the liquefaction susceptibility will be undertaken as part of the preliminary design work. In addition, the design of the bridge, including the foundation, will be designed to minimize impacts from liquefaction and unstable soils. (Structures Preliminary Geotechnical Report, November 7, 2016)

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

*Less Than Significant Impact*

Expansive soils are not expected to be found within the project site. Preliminary Geotechnical investigation have not indicted the presences of expansive soils within the project area. (Structures Preliminary Geotechnical Report, August 19,2016)

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

*No Impact*

The project does not involve construction or installation of septic tanks or alternative waste water disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

*No Impact*

The project would not directly or indirectly destroy paleontological resources because none are expected within the project site. There are

also no unique geologic features within the project limits. (Paleontology Review, July 26, 2018)

### 3.2.8 Greenhouse Gas Emissions

***CEQA Significance Determinations for Greenhouse Gas Emissions***

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

*Less Than Significant Impact*

The project would not add travel lanes or alter vehicle miles traveled and would not alter existing greenhouse gas emissions. The project is considered a roadway improvement project and would not increase operational greenhouse gas emissions.

The project would generate temporary greenhouse gas emission as a result of temporary construction activities. Construction equipment emission would be generated at different levels during the construction phase. Construction equipment emission would stop at the end of project construction and is not anticipated to significantly impact the environment.

All construction activities will include all Caltrans Standard Specifications and Caltrans Standard Special Provisions to comply with all Air Resource Board's district rules, regulations, ordinances and statutes to reduce construction greenhouse gas emissions (i.e., restrictions on idling equipment, properly maintained equipment, appropriate materials source point, etc.).

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

*Less Than Significant Impact*

The project would not conflict with existing plans, policies or regulation for reducing emission greenhouse gases.

All construction activities will include all Caltrans Standard Specifications and Caltrans Standard Special Provisions to comply with all Air Resource Board's district rules, regulations, ordinances and statutes to reduce construction greenhouse gas emissions (i.e., restrictions on idling equipment, properly maintained equipment, appropriate materials source point, etc.).

### 3.2.9 Hazards and Hazardous Materials

***CEQA Significance Determinations for Hazards and Hazardous Materials***

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

*Less Than Significant Impact*

During project construction, the project may use and/or encounter potentially hazardous substances (i.e., petroleum-derived products, industrial chemicals, compounds, and materials, etc.) These materials would be transported into and out of the project site as needed.

Any potentially hazardous substance used and/or encountered during construction would be regulated and controlled to ensure that its potential for affecting the public or the environment would be avoided and/or minimized as required under Caltrans Standard Specifications and to comply with state and federal requirements.

If project construction encounters a substance that is not known, whether it is hazardous or not, appropriate testing would be conducted. If the substance is identified as a hazardous substance, it will be treated and handled appropriately as required under Caltrans Standard Specifications and to comply with state and federal requirements.

The project is not anticipated to result in potential significant hazards to the public or the environment. (Hazardous Waste Initial Site Assessment Memo, March 9, 2018).

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

*Less Than Significant Impact*

The project has the potential to result in spills and/or release of potentially hazardous substances as a result of construction activities. The project will incorporate Caltrans Standard Specifications for the prevention and management of spills and releases to reduce the potential for hazardous substances to significantly affect the public or the environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

*Less Than Significant Impact*

Based on available online mapping for the city of Guadalupe, the project is approximately 0.25-mile northeast from Mary Buren Elementary School. The project would produce emissions and air pollutants as a result of equipment operation, but the concentrations of emissions and air pollutants are not expected to reach levels considered to be hazardous (see Section 3.2.8). Also, the project will incorporate Caltrans Standard Specifications for the minimization and reduction of potential emissions and air pollutants generated as a result of equipment operations.

During construction, the project may use and/or encounter potentially hazardous substances (i.e., petroleum-derived products, industrial chemicals, compounds, and materials, etc.). Any potentially hazardous substance used and/or encountered during construction would be regulated and controlled to ensure that its potential for affecting the public or the environment would be avoided and/or minimized as required under Caltrans Standard Specifications and to comply with state and federal requirements.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

*No Impact*

A search of databases compiled pursuant to Government Code Section 65962.5 did not identify any known hazardous waste site within the project limits. (Hazardous Waste Initial Site Assessment Memo, March 9, 2018)

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

*No Impact*

Based on County of San Luis Obispo and the County of Santa Barbara planning department maps, the project is not within an airport land use plan nor is it within 2 miles of a public airport, public use airport, or a private airstrip.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

*No Impact*

The project would keep State Route 1 open during construction by maintaining two lanes in either direction for traffic and emergency service use. The project will include Caltrans Standard Specifications and Caltrans

Standard Special Provisions to ensure construction activities would not impair emergency services or emergency plans in the area. Caltrans Resident Engineer will maintain communications with local emergency service providers and planners during project construction to minimize potential delays to emergency responses or evacuations.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

*No Impact*

Based on available Fire Hazard Severity Maps for San Luis Obispo County and Santa Barbara County, the project site is not within wildlands or in an area that is at considerable risk for wildland fires. The project site is surrounded mostly by agricultural and residential land uses.

### 3.2.10 Hydrology and Water Quality

***CEQA Significance Determinations for Hydrology and Water Quality***

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

*Less Than Significant Impact*

During project construction, a variety of activities will occur next to, above and within the Santa Maria River channel. Construction-related activities could result in temporary and intermittent impacts on water quality as fugitive dust and materials may enter the river channel.

Although the Santa Maria River is dry for most of the year, the project plans to conduct all work in the river during the dry season, when there is a very low chance for water to be in the river. If water is present during the dry season, appropriate temporary avoidance and minimization measures may be used to ensure construction activities would not significantly affect the river or water quality.

The project will incorporate appropriate permanent and temporary Best Management Practices to prevent and reduce impacts to water quality as a result of the project activities. In addition, the project will also include Caltrans Standard Specifications and Caltrans Standard Special Provisions to avoid and minimize impacts to water quality as a result of project activities.

The project would not discharge waste water. Portable toilets would be placed in the project site at a considerable distance away from the river channel. Any liquid waste generated by project-related activities would be

collected, contained and disposed of in a manner appropriate for the substance. (Water Quality Assessment Memo, July 25, 2018).

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

*No Impact*

The project would not involve activities that would require excessive volumes of water that would substantially decrease local groundwater supplies. The project would not involve activities that would interfere with groundwater recharge or impede the sustainable groundwater management of the local basin.

The project will replant as part of measures for biological resources. Caltrans complies with water conservation requirements set by Executive Order issued during Governor Edmund G. Brown Jr's term and maintains a goal of reducing water consumption by 50 percent compared to 2013 baseline usage. Caltrans often plants California native plant species and designs temporary irrigation systems to minimize water consumption.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site;

*Less Than Significant Impact*

The project would involve earth work and excavations as part of the bridge demolition and construction process. Construction of the new abutments will require additional fill and grading. However, the project would incorporate the appropriate erosion control measures during construction along with implementing permanent and temporary Best Management Practices to reduce the potential for erosion or siltation on- or off-site. (Water Quality Assessment, July 25, 2018)

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

*Less Than Significant Impact*

The project would increase the total impervious surface area within the project limits. However, the project is not anticipated to alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation on- or off-site. The project also would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. (Location Hydraulic Study, January 10, 2019)

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

*Less Than Significant Impact*

Although the new bridge structure would result in the increase of total impervious surface area within the project limits, the additional amount of runoff water associated with the new bridge is not anticipated to exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff. In addition, the project would incorporate permanent Best Management Practices to control potential runoff water associated with the new bridge structure. (Water Quality Assessment Memo, July 25, 2018)

iv) Impede or redirect flood flows?

*No Impact*

The project will involve replacing an existing bridge located in the Santa Maria River channel and is not anticipated to impeded or redirect flood flows in the area. The project is in a flood zone where the base flood elevation is not determined. The new bridge structure will reduce the number of piers in the river channel and which would potentially improve water flow in the river channel during a flood event.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

*No Impact*

The project is not within a designated flood hazard zone or within the reach of a tsunami. (Location Hydraulic Study, January 10, 2019)

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

*No Impact*

The project region is regulated by the Central Coast Regional Water Quality Control Broad and the Central Coast Basin Plan. The project will comply with applicable regulations and policies pertaining to the protection of water resources in the region.

The project will coordinate with and be required to comply with, but not be limited to, the following: California Fish and Game Code 5650, California Department of Fish and Wildlife Section 1601, U.S. Army Corps of Engineers 404 Permit and Regional Water Quality Control Board 401 certifications. (Water Quality Assessment Memo, July 25, 2018)

### 3.2.11 Land Use and Planning

***CEQA Significance Determinations for Land Use and Planning***

Would the project:

a) Physically divide an established community?

*No Impact*

The project would replace the existing deteriorating Santa Maria River Bridge to ensure the continued operation of State Route 1 and would not divide an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

*No Impact*

Most project activities will occur within the existing state right-of-way. The project will require temporary construction easements and new right-of-way for roadway adjustments. However, temporary construction easements and new right-of-way associated with the project are not anticipated to conflict with any existing land use plan, policy or regulation adopted for the purpose of mitigating an environmental effect.

### 3.2.12 Mineral Resources

*CEQA Significance Determinations for Mineral Resources*

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

*No Impact*

Based on mapping provided by the California Department of Conservation, there are no mineral resources that would be of value to the region and the residents of the state within the project area.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

*No Impact.*

Based on the General Plan for the city of Guadalupe and the Santa Barbara County Comprehensive Plan, there are no existing or planned resource recovery sites in the project area.

### 3.2.13 Noise

***CEQA Significance Determinations for Noise***

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

*Less Than Significant Impact*

The project is not anticipated to result in permanent changes to existing noise levels in the area and is not anticipated to result in permanent long-term noise impact to nearby receptors.

The project would result in temporary noise increases as result of temporary construction activities. The amount of temporary construction related noise will vary with the activity and proximity to nearby receptors. Noise generated during project construction would be temporary and intermittent and is not anticipated to generated adverse noise impacts in the project area.

The project will include Caltrans Standard Specifications and Caltrans Standard Special Provisions pertaining to noise control and minimization measures to reduce the project's potential to generate noise impacts. The project will comply with all applicable State sound control and noise level rules, regulation and ordinances. (Noise Study Report, October 18, 2018)

b) Generation of excessive groundborne vibration or groundborne noise levels?

*Less Than Significant Impact*

The project will require the installation of piles as part of the new bridge construction. Piles may be driven, drilled or vibrated in place, all of which have the potential to general temporary groundborne vibrations within the project area. The project will require pavement removal during construction, which may involve the use of jackhammers and grinders, both of which would general temporary groundborne vibrations. Pile installations and pavement removal would occur in segments during project construction, each lasting a few days, and is not anticipated to result in excessive groundborne vibrations or noise levels. The project will include Caltrans Standard Specifications and Caltrans Standard Special Provisions pertaining to noise and vibration control. (Noise Study Report, October 18, 2018)

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

*No Impact*

Based on available online mapping of the city of Guadalupe, the project is not within an airport land use plan nor within 2 miles of a public airport, public use airport or a private airstrip.

### 3.2.14 Population and Housing

***CEQA Significance Determinations for Population and Housing***

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

*No Impact*

The project would construct a new bridge structure on a new alignment without changing the current highway capacity. It would not change accessibility or influence growth. No direct or indirect impacts to growth would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

*Less Than Significant Impact*

The project would construct a new bridge structure on a new alignment and would require adjustments to the roadway. The project would require partial property acquisition for additional right-of-way. However, the amount of partial property acquisition required for the project is not anticipated to result in the displacement of existing residences or businesses.

### 3.2.15 Public Services

***CEQA Significance Determinations for Public Services***

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

Fire protection?

*No Impact*

The project would replace an existing bridge with a new bridge structure on a new alignment. The project would not require the alteration or creation of facilities related to fire protection.

Police protection?

*No Impact*

The project would replace an existing bridge with a new bridge structure on a new alignment. The project would not require the alteration or creation of facilities related to police protection.

Schools?

*No Impact*

The project would replace an existing bridge with a new bridge structure on a new alignment. The project would not require the alteration or creation of facilities related to schools.

Parks?

*No Impact*

The project would replace an existing bridge with a new bridge structure on a new alignment. The project would not require the alteration or creation of facilities related to parks.

Other public facilities?

*No Impact*

The project would replace an existing bridge with a new bridge structure on a new alignment. The project would not require the alteration or creation of facilities related to other public facilities.

### 3.2.16 Recreation

#### *CEQA Significance Determinations for Recreation*

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

*No Impact*

The project would replace the existing bridge with a new bridge structure on a new alignment. The project would not increase the use of existing neighborhood or regional parks.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

*No Impact*

The project would replace the existing bridge with a new bridge structure on a new alignment. It does not include construction of a new recreational facilities or expansion of existing facilities.

### 3.2.17 Transportation

***CEQA Significance Determinations for Transportation***

Would the project:

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

*Less Than Significant Impact*

Construction activities could result in delays for vehicle drivers, cyclists, and pedestrians during construction. However, traffic control will be used to ensure that State Route 1 would remain open to vehicles, cyclists, and pedestrians during construction of the replacement bridge, minimizing delays. The project would not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, or mass transit. The project would ensure a structurally sound bridge that would maintain the safe operation of the highway system and provide a new pathway for multimodal use.

b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

*Less Than Significant Impact*

The project is in an existing high transit corridor (Route 1) and is not expected to significantly alter vehicle miles traveled. The project may result in temporary traffic delays during project construction.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

*No Impact*

The project will comply with current Highway Design Manual standards. The design and operation of the new bridge structure would not include hazardous design features or result in incompatible uses.

d) Result in inadequate emergency access?

*Less Than Significant Impact*

Construction staging, and construction activities could result in temporary and minor delays for emergency service providers that use Route 1. However, traffic control will be used to ensure that State Route 1 would remain open to emergency vehicles during construction of the replacement bridge, minimizing delays. The need for any temporary lane closures would be communicated to the appropriate fire, law enforcement, and other emergency service agencies to ensure continuation of adequate service. A Transportation Management Plan will be implemented and would assist emergency services during project construction to minimize response time delays.

### 3.2.18 Tribal Cultural Resources

#### *CEQA Significance Determinations for Tribal Cultural Resources*

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

*No Impact*

No tribal cultural resources have been identified or are expected to be found in the project area. (Cultural Resource Review, September 23, 2019)

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency will consider the significance of the resource to a California Native American tribe.

*No Impact*

Consultation with the Native American Heritage Commission and various Native American tribes was conducted for this project. As part of consultation, letters describing the project and a request for comment and information on Native American concerns were sent on December 19, 2018.

No responses have been received to date. In addition, no tribal cultural resources have been identified in the project area and none are expected to be found. (Cultural Resource Review, September 23, 2019)

### 3.2.19 Utilities and Service Systems

***CEQA Significance Determinations for Utilities and Service Systems***

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

*Less Than Significant Impact*

The project would not relocate or construct water, wastewater, storm water, or natural gas facilities. The project would not relocate telecommunication lines.

Temporary and permanent utility relocations are anticipated for electrical power lines within the project limits. Utilities would be relocated to ensure their avoidance during project construction. It is anticipated that temporary and permanent utility relocations would not result in significant environmental impacts. The Caltrans Right of Way Manual provides guidance on managing and processing utility relocations to minimize potential impacts to the environment. The project will also have to comply with the Federal Utility Relocation and Accommodation on Federal-Aid Highway Projects Program Guide. In addition, disturbance associated with utility relocation would be minimized because the project would restore disturbed areas at the end of project construction.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

*Less Than Significant Impact*

The project would use minimal water during construction operations and water will not need to be supplied for bridge operations.

The project will include replanting as part of measures for biological resources. Caltrans often use plants that are California native species and are not anticipated to require excessive water to establish. During replanting, temporary irrigations systems may be required and will be designed to minimize water use.

Caltrans complies with water conservation requirements by State Executive Orders issued ruing Governor Brown's term and maintains a goal of reducing water consumption by 50 percent compared to 2013 baseline usage.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

*No Impact*

The project would replace an existing bridge over the Santa Maria River on State Route 1 and would not generate wastewater. Portable restrooms would be used during project construction.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

*No Impact*

The project would not generate substantial amounts of solid waste. Project waste would be disposed of at appropriate waste disposal sites that are able to accommodate the waste materials. The project would not generate solid waste during operation.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

*No Impact*

The project would comply with federal, state, and local statutes and regulations related to solid waste. In addition, the project would not generate substantial amounts of solid waste during construction and would not generate any solid waste during long-term operation of the bridge.

### 3.2.20 Wildfire

***CEQA Significance Determinations for Wildfire***

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

*Less Than Significant Impact*

During construction, any emergency response or evacuation plan requiring access to the project site may encounter delays. Construction staging and construction activities could result in temporary or minor delays to emergency responses or emergency evacuations in the project area. However, traffic control will be implemented to ensure that State Route 1 would remain open to emergency vehicles during bridge construction to minimize potential delays. During project construction, the need for any temporary lane closures would be communicated to the appropriate emergency responders and other emergency service agencies to ensure appropriate planning is in place. A Transportation Management Plan will be implemented to help minimize emergency services or emergency evacuation actions. At project completion, any existing emergency response plans or emergency evacuation plans are not anticipated to change.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

*Less Than Significant Impact*

According to the San Luis Obispo County and Santa Barbara County – Fire Hazard Severity Zone Map, the project is not within an area identified as having high fire hazard because the surrounding area is identified as mostly agricultural. The project could expose workers to fire risk and hazards during construction. Construction of the project could create an unintended fire. However, during the construction phase, standard precautions to prevent fire incidents would be used in accordance with California Division of Occupational Safety and Health - Fire Protection and Prevention guidance.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

*Less Than Significant Impact*

The project would require temporary and permanent utility relocation. The utility relocations are not expected to exacerbate fire risk that may result in temporary or ongoing impacts to the environment. Utility relocations will follow the standards in the Caltrans Right of Way Manual and the Federal Utility Relocation and Accommodation on Federal-Aid Highway Projects Program Guide.

During utility relocation, there is the potential for unintended fires; however, adequate safety precautions would be used to prevent fire incidents in accordance with California Division of Occupational Safety and Health - Fire Protection and Prevention guidance.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

*No Impact*

Based on available topographic maps, the landscape of the region is relatively flat, with no nearby hills or mountains, so the project would not be exposed to potential landslides. If post-fire conditions are found upstream from the project site, there is very low potential for post-fire debris, materials and runoff to pose a risk to the project site by way of the river. In the event of an emergency, it is anticipated that the project site would be evacuated as part of the code of safe practices.

### 3.2.21 Mandatory Findings of Significance

***CEQA Significance Determinations for Mandatory Findings of Significance***

a) 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

*Less Than Significant Impact with Mitigation Incorporated*

Detailed discussions regarding the existing environment, species and habitat that could be affected by the project and anticipated project measures are found in Chapter 2 of this document.

The project would result in a combination of direct and indirect effects to biological resources as a result of temporary and permanent project related impacts. The project does have the potential to affect several species that have the potential to be found within the project area. The project also have the potential to affect potential species habitat within the project area. However, the project will incorporate avoidance, minimization and/or mitigation measures that would reduce or offset any potential project related impacts to biological resources.

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

*Less Than Significant Impact*

Detailed discussions regarding potential cumulative impacts as a result of the project is discussed in Section 2.5.

The project would remove an existing bridge structure and then construct a new bridge structure on an adjacent alignment. The new bridge structure would be of similar design and appearance to the existing bridge. Disturbance to environmental resources as a result of the project is anticipated to be relatively minimal.

The project have the potential to contribute to cumulative impacts to biological species and habitat. The project would result in permanent loss of potential species habitat. Project construction activities have the potential to result in the death of individual special status species.

However, due to the marginal quality of existing species habitat and the relatively low potential for special status species to occur within the project area, the project is not anticipated to result in substantial negative cumulative impacts to biological species and habitat.

The project will include measures that would remove non-native invasive species and restore disturbed areas with native vegetation, which have the potential to cumulatively benefit existing habitats and native species.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

*Less Than Significant Impact*

The project would remove an existing bridge structure and then construct a new bridge structure on an adjacent alignment. The new bridge structure will be designed to meet Caltrans design standards and would be of similar appearance to the existing bridge. The new bridge design is not anticipated to result in direct or indirect substantial adverse effects to people.

Temporary project construction activities have the potential to directly or indirectly affect people that are in the vicinity of the project. However, avoidance and minimization measures will be implemented during project construction to reduce the potential for direct or indirect impacts to people. Temporary construction related disturbances are discussed in detail in Section 2.4.

## 3.3 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity, including carbon dioxide, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, and various hydrofluorocarbons. Carbon dioxide is the most abundant greenhouse gas; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated carbon dioxide.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas mitigation covers the activities and policies aimed at reducing greenhouse gas emissions to limit or "mitigate" the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

### Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

*Federal*

To date, no national standards have been established for nationwide mobile-source greenhouse gas reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and greenhouse gas emissions reduction at the project level.

NEPA (42 U.S. Code Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions

pose to transportation infrastructure and those who depend on it. The Federal Highway Administration therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (available at: FHWA *Sustainability*. https://www.fhwa.dot.gov/environment/sustainability/resilience/). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values - "the triple bottom line of sustainability" (available at: FHWA *Sustainable Highways Initiative.* https://www.sustainablehighways.dot.gov/overview.aspx). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been made at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 U.S. Code Section 6201) and Corporate Average Fuel Economy Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. Environmental Protection Agency in conjunction with the National Highway Traffic Safety Administration is responsible for setting greenhouse gas emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States (available at: U.S. Environmental Protection Agency *Endangerment and Cause of Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act.* https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean). The current standards require vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. The U.S. Environmental Protection Agency and National Highway Traffic Safety Administration are currently considering appropriate mileage

and greenhouse gas emissions standards for 2022–2025 light-duty vehicles for future rulemaking.

The National Highway Traffic Safety Administration and the U.S. Environmental Protection Agency issued a Final Rule for "Phase 2" for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce carbon dioxide emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

*State*

California has been innovative and proactive in addressing greenhouse gas emissions and climate change by passing multiple Senate Bills, Assembly Bills and Executive Orders including, but not limited to, the following:

- Executive Order S-3-05 (June 1, 2005): The goal of this order is to reduce California's greenhouse gas emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and Senate Bill 32 in 2016.
- Assembly Bill 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006:32 codified the 2020 greenhouse gas emissions reduction goals outlined in Executive Order S-3-05, while further mandating that the California Air Resources Board create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires California Air Resource Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.
- Executive Order S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard for California. Under this order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. The California Air Resource Board re-adopted the low carbon fuel standard regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 greenhouse gas reduction goals.
- Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resource Board to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a "Sustainable Communities Strategy" that integrates transportation, land

use, and housing policies to plan how it will achieve the emissions target for its region.

- Senate Bill 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under Assembly Bill 32.
- Executive Order B-16-12 (March 2012) orders State entities under the direction of the Governor, including the California Air Resource Board , the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.
- Executive Order B-30-15 (April 2015) establishes an interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs the California Air Resource Board to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent. Finally, it requires the Natural Resources Agency to update the State's climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.
- Senate Bill 32, Chapter 249, 2016, codifies the greenhouse gas reduction targets established in Executive Order B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.
- Senate Bill 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."
- Assembly Bill 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.
- Senate Bill 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal

transportation while balancing the needs of congestion management and safety.

- Senate Bill 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires the California Air Resource Board to prepare a report that assesses progress made by each Metropolitan Planning Organization in meeting their established regional greenhouse gas emission reduction targets.
- Executive Order B-55-18, (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing greenhouse gas emissions.

## Environmental Setting

The project sits on the boundary of southern San Luis Obispo County and northern Santa Barbara County, just north of the city of Guadalupe. State Route 1 runs north-south through the city of Guadalupe and is a major road that serves the surrounding vicinity. The area surrounding the project location is mostly rural, but includes residential, commercial and farming uses.

The city of Guadalupe is on a growth trend and is increasing its urban presence in the area. The Santa Barbara County Association of Governments' Regional Transportation (available at: http://www.sbcag.org/planning.html#transplanning) and the San Luis Obispo Council of Government's Regional Transportation Plan (available at: https://www.slocog.org/programs/regional-transportation-plan-sustainable-communities-strategy) guides transportation development in the area. The city of Guadalupe 2040 Draft General Plan guides developments within the city limits (available at: http://ci.guadalupe.ca.us/building-and-planning/).

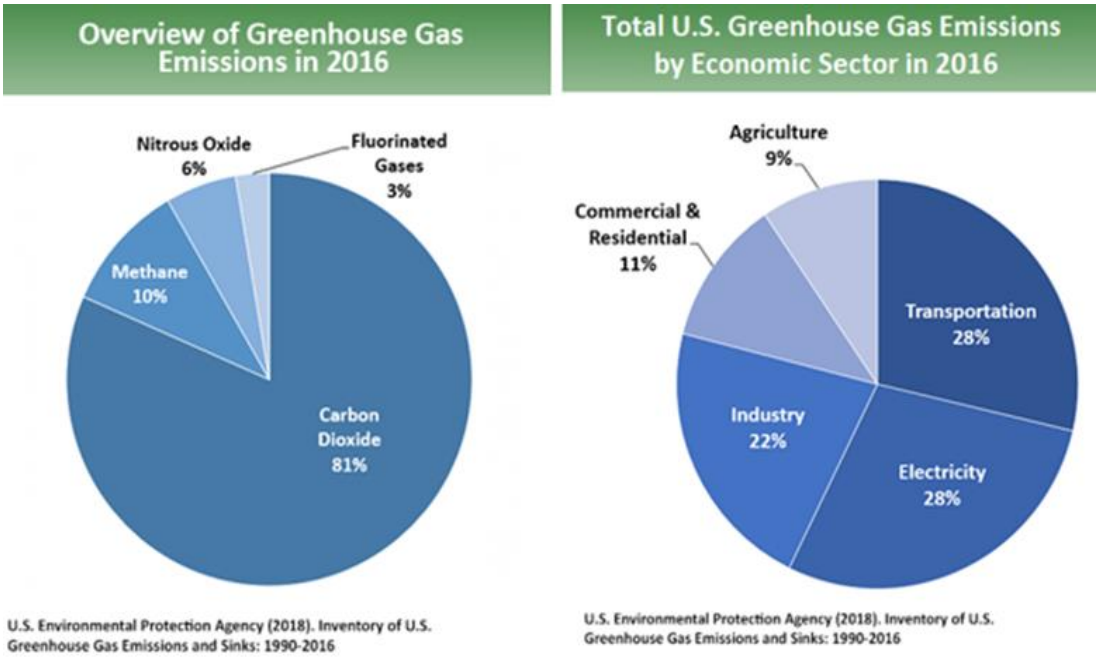
A greenhouse gas emissions inventory estimates the amount of greenhouse gases discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual greenhouse gas emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. The U.S. Environmental Protection Agency is responsible for documenting greenhouse gas emissions nationwide, and the California Air Resource Board does so for the state, as required by Health and Safety Code Section 39607.4.

### *National Greenhouse Gas Inventory*

The U.S. Environmental Protection Agency prepares a national greenhouse gas inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of greenhouse gases in the United States, reporting emissions of carbon dioxide, methane,

nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. It also accounts for emissions of carbon dioxide that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store carbon dioxide (carbon sequestration). The 1990–2016 inventory found that of 6,511 million metric tons of carbon dioxide equivalent greenhouse gas emissions in 2016, 81 percent consist of carbon dioxide, 10 percent are methane, and 6 percent are nitrous oxide; the balance consists of fluorinated gases (available at: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks). In 2016, greenhouse gas emissions from the transportation sector accounted for nearly 28.5 percent of U.S. greenhouse gas emissions (see Figure 3-1).

**Figure 3-1 U.S. 2016 Greenhouse Gas Emissions**




*State Greenhouse Gas Inventory*

The California Air Resource Board collects greenhouse gas emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year (see Figure 3-2).

It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in meeting its greenhouse gas reduction goals (see Figure 3-3).

**Figure 3-2 California 2017 Greenhouse Gas Emission**

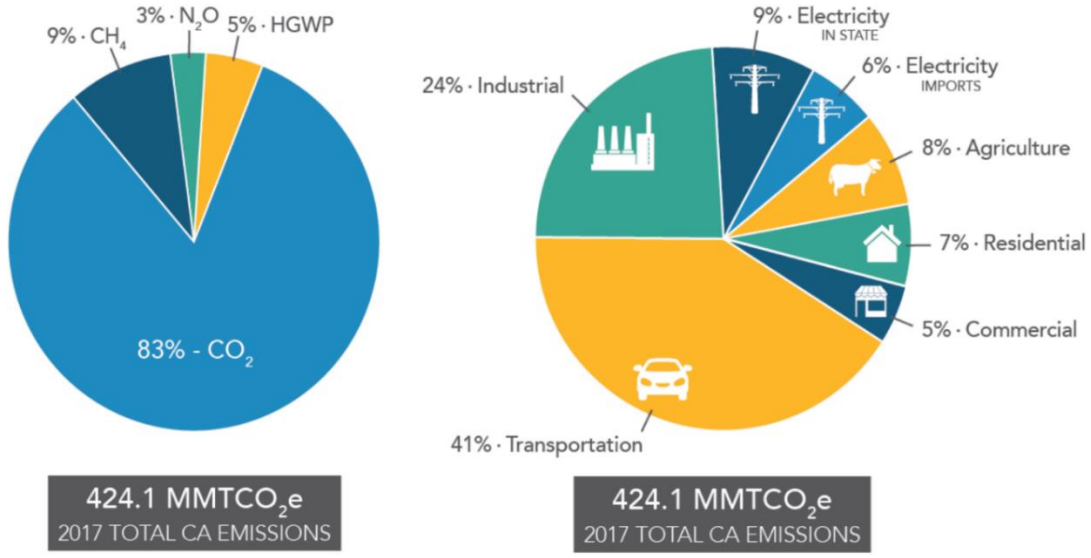
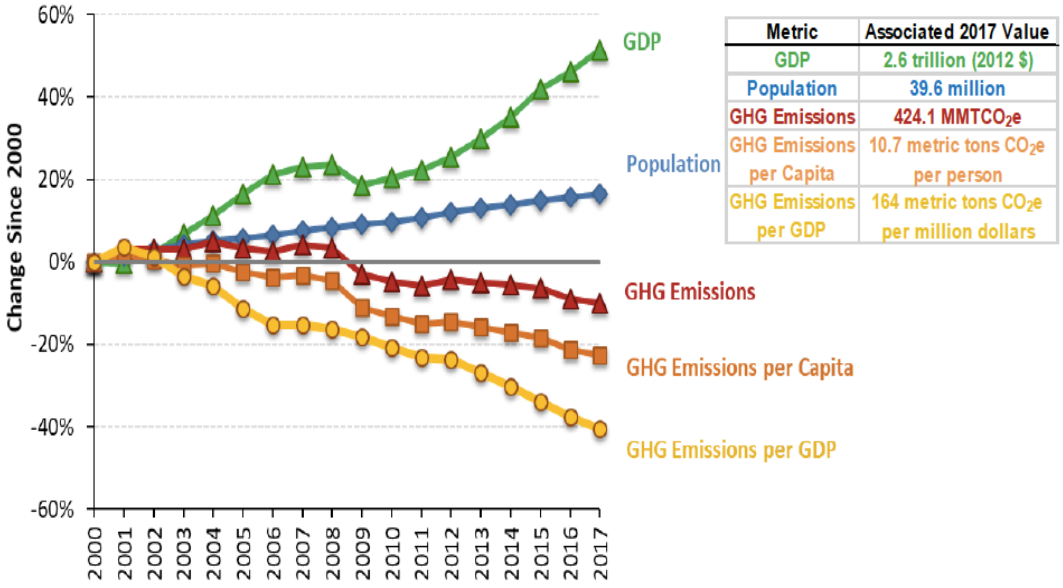



**Figure 3-3 Change in California Gross Domestic Product, Population and Greenhouse Gas Emissions Since 2000**




*Source: California Air Resource Board 2019*

The 2019 edition of the greenhouse gas emissions inventory found total California emissions of 424.1 million metric tons of carbon dioxide equivalent for 2017, with the transportation sector responsible for 41 percent of total greenhouse gases. It also found that overall statewide greenhouse gas emissions declined from 2000 to 2017 despite growth in population and state economic output (available at: California Air Resource Board, *California Greenhouse Gas Emission Inventory – 2019 Edition*. https://ww3.arb.ca.gov/cc/inventory/data/data.htm).

Assembly Bill 32 required the California Air Resource Board to develop a scoping plan that describes the approach California will take to achieve the goal of reducing greenhouse gas emissions to 1990 levels by 2020, and to update it every 5 years. The California Air Resource Board adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in Executive Orders B-30-15 and Senate Bill 32. The Assembly Bill 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce greenhouse gas greenhouse gas emissions.

*Regional Plans*

The California Air Resource Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Regional Transportation Plan/Sustainable Communities Strategies to plan future projects that will cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels.

The proposed project is included in the San Luis Obispo Council of Governments' approved 2019 Federal Transportation Improvement Program, under the current project EA number. The project was included in the Santa Barbara County Association of Governments' approved 2040 Regional Transportation Plan (2017), within the Lump Sum – Local Agency – Highway Bridge Program and Seismic Project.

The regional reduction target for the Santa Barbara County Association of Governments is 13 percent by 2020 and 17 percent by 2035 (available at: California Air Resource Board, *SB-375 Regional Plan Climate Targets*. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets). The Santa Barbara County Comprehensive Plan, Energy Element, Goal 8.3, tells the County to implement the Energy and Climate Action Plan to reduce greenhouse gas emissions from communitywide sources by a minimum of 15 percent from 2007 baseline emissions by 2020 (available at: https://cosantabarbara.app.box.com/s/mihghnn9kxxv7v60gtopyjeng1o998gc). The Energy and Climate Action Plan includes greenhouse gas reduction measures such as T4—*Enhance alternative and active transportation*, T5—

*Complete an integrated bikeway system*, and BE10—*Implement best management practices for construction equipment operation* (available at: https://www.countyofsb.org/plndev/projects/ecap.sbc).

## Project Analysis

Greenhouse gas emissions from transportation projects can be divided into those produced during operation of the state highway system and those produced during construction. The main greenhouse gases produced by the transportation sector are carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. carbon dioxide emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of methane and nitrous oxide are emitted during fuel combustion. In addition, a small amount of hydrofluorocarbons emissions is included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Public Resources Code, § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation v. San Diego Association of Governments (2017) 3 California 5th 497, 512.) In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(1) and 15130)).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gas must necessarily be found to contribute to a significant cumulative impact on the environment.

### *Operational Emissions*

The purpose of the project is to address the structural deficiencies of the Santa Maria River Bridge to ensure the function and reliability of Route 1. The project would not add travel lanes, increase the vehicle capacity of the roadway, or increase vehicle miles traveled. While some greenhouse gas emissions during the construction period would be unavoidable, no increase in operational greenhouse gas emissions is expected.

### *Construction Emissions*

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be

reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved Transportation Management Plan, and changes in materials, the greenhouse gas emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Construction greenhouse gas emissions were estimated using the CAL-CET modeling tool, using default settings for a bridge replacement project. The estimated carbon dioxide emissions would be 181 tons per year or a total of 368 tons generated over a period of approximately 24 months for project construction.

All construction contracts include Caltrans Standard Specifications Sections 7-1.02A and 7 1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all California Air Resource Board emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations such as equipment idling restrictions that reduce construction vehicle emissions also help reduce greenhouse gas emissions. A Transportation Management Plan would be carried out during project construction to minimize construction-period traffic delays and emissions.

*CEQA Conclusion*

Although the project would result in a slight increase in greenhouse gas emissions during construction, the project would not result in any increase in operational greenhouse gas emissions after project completion.

The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gas. The wider shoulders and dedicated bicycle/pedestrian path proposed by the project would accommodate multimodal use and support regional plans to improve cyclist access. With implementation of construction greenhouse gas reduction measures, the project impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

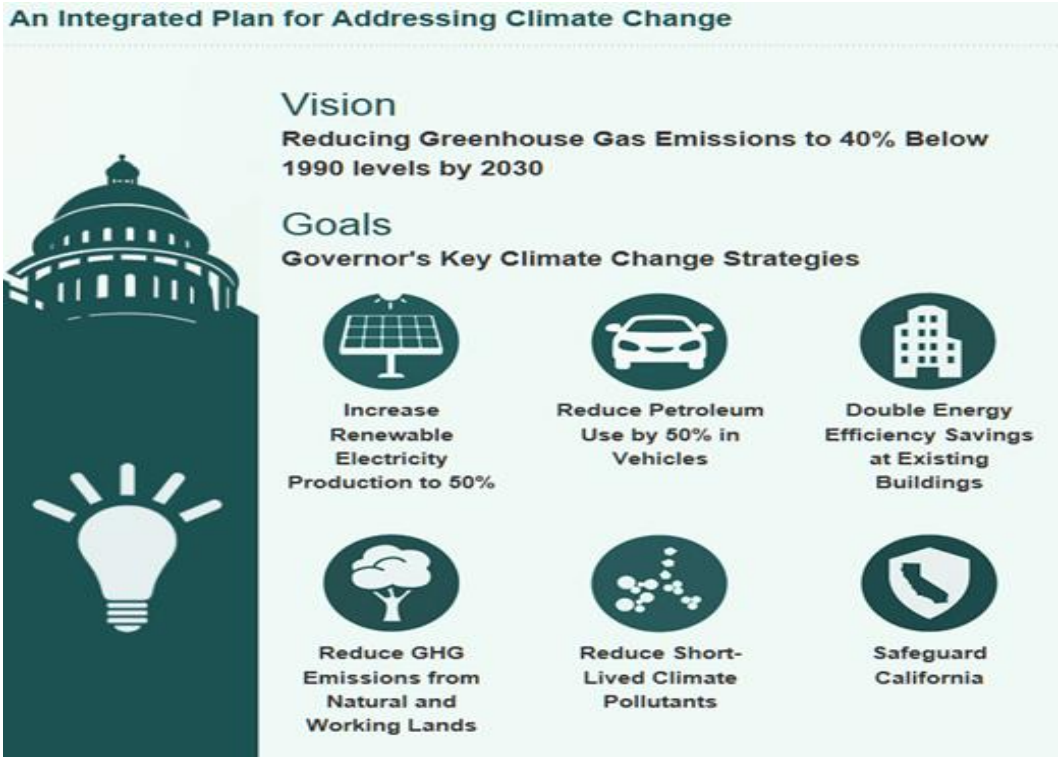
## Greenhouse Gas Reduction Strategies

*Statewide Efforts*

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 greenhouse gas emissions

targets. Former Governor Edmund G. Brown Jr promoted greenhouse gas reduction goals that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, Safeguarding California. These greenhouse gas reduction goals are shown in Figure 3-4.

**Figure 3-4 California Climate Strategy**




The transportation sector is integral to the people and economy of California. To achieve greenhouse gas emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. Greenhouse gas emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. A key state goal for reducing greenhouse gas emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (available at: State of California, *California Climate Strategy,* https://www.climatechange.ca.gov/).

In addition, Senate Bill 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

*Caltrans Activities*

Caltrans continues to be involved on the Governor's Climate Action Team as the California Air Resource Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in Assembly Bill 32. Executive Order B-30-15, issued in April 2015, and Senate Bill 32 (2016), set an interim target to cut greenhouse gas emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

*California Transportation Plan 2040 (CTP 2040)*

The California Transportation Plan is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. In 2016, Caltrans completed the California Transportation Plan 2040, which establishes a new model for developing ground transportation systems, consistent with carbon dioxide reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

Senate Bill 391 (Liu 2009) requires the California Transportation Plan to meet California's climate change goals under Assembly Bill 32. Accordingly, the California Transportation Plan 2040 identifies the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs. While Metropolitan Planning Organizations have primary responsibility for identifying land use patterns to help reduce greenhouse gas emissions, the California Transportation Plan 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

*Caltrans Strategic Management Plan*

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce greenhouse gas emissions, among other goals. Specific performance targets in the plan that will help to reduce greenhouse gas emissions include:

- Increasing the percentage of non-auto mode share
- Reducing vehicle miles traveled
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) greenhouse gas emissions

*Funding and Technical Assistance Programs*

In addition to developing plans and performance targets to reduce greenhouse gas emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's Regional Transportation Plan/Sustainable Communities Strategy; contribute to the State's greenhouse gas reduction targets and advance transportation-related greenhouse gas emission reduction project types/strategies; and support other climate adaptation goals (e.g., Safeguarding California).

*Caltrans Policy Directives and Other Initiatives*

Caltrans Director's Policy 30 Climate Change (June 22, 2012) is intended to establish a department policy that will ensure coordinated efforts to incorporate climate change into departmental decisions and activities. Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce greenhouse gas emissions resulting from agency operations.

*Project-Level Greenhouse Gas Reduction Strategies*

The following measures will also be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project.

- The project would include a Transportation Management Plan that would reduce delays and related short-term increases in greenhouse gas emissions from disruptions in traffic flow. Also, in the event that portable changeable message signs are required as part of the Transportation Management Plan, message signs would be solar powered when possible and would not result in greenhouse gas emissions during use.
- Caltrans Standard Specifications Section 14-9, Air Quality, a part of all construction contracts, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. Requirements of the Santa Barbara Air Pollution Control District

will apply to this project. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce greenhouse gas emissions.

- The project proposes to revegetate previously undisturbed areas, where applicable, following construction completion. Landscaping reduces surface warming and, through photosynthesis, removes carbon dioxide from the atmosphere.
- The project proposes to add a separated bicycle/pedestrian path, which will support the use of active transportation modes.
- The project would reduce the need for transport of earthen materials by balancing cut and fill quantities.
- The project would reduce construction waste and maximize the use of recycled materials.
- The project would use appropriately sized equipment for project activities.
- The project would maintain equipment in proper tune and working condition.
- The project would limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.
- The project would utilize compost as part of post construction restoration efforts where it is deemed appropriate and feasible.

*Adaptation*

Reducing greenhouse gas emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and an increase in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads. Longer periods of intense heat can buckle pavement and railroad tracks. Storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

*Federal Efforts*

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and Federal Highway Administration NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S. Code Chapter 56A § 2921 et seq). The Fourth National Climate Assessment, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways." Chapter 12, "Transportation," presents a key discussion of vulnerability assessments. It notes that "asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime" (available at: USCGRP, *2018 Fourth National Climate Assessment*. https://nca2018.globalchange.gov/).

The U.S. Department of Transportation Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of Department of Transportation to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions" (available at: U.S. Department of Transportation, *Policy and Guidance,* https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm).

Federal Highway Administration Order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014) established the Federal Highway Administration policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. The Federal Highway Administration has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (available at: Federal Highway Administration, *Sustainability*. https://www.fhwa.dot.gov/environment/sustainability/resilience/).

*State Efforts*

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. California's Fourth Climate Change Assessment (available at: http://www.climateassessment.ca.gov/) is the state's effort to "translate the state of climate science into useful information for action" in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- Adaptive capacity is the "combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities."
- Exposure is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- Resilience is the "capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience". Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- Sensitivity is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- Vulnerability is the "susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt." Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

- Executive Order S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the California Climate Adaptation Strategy (2009), updated in 2014 as Safeguarding California: Reducing Climate Risk (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.
- Executive Order S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim State of California Sea-Level Rise Interim Guidance Document in 2010, with instructions for how state agencies could incorporate "sea-level rise projections into planning and decision making for projects in California" in a consistent way across agencies. The guidance was revised and augmented in 2013. Rising Seas in California – An Update on Sea-Level Rise Science was published in

2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the State of California Sea-Level Rise Guidance Update in 2018.

- Executive Order B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This order recognizes that effects of climate change other than sea-level rise also threaten California's infrastructure. At the direction of Executive Order B-30-15, the Office of Planning and Research published Planning and Investing for a Resilient California: A Guidebook for State Agencies in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.
- Assembly Bill 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, Paying it Forward: The Path Toward Climate-Safe Infrastructure in California. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

*Caltrans Adaptation Efforts*

*Caltrans Vulnerability Assessment*

Caltrans is conducting climate change vulnerability assessments to identify segments of the state highway system vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency and involves the following concepts and actions:

- Exposure—Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- Consequence—Determine what might occur to system assets in terms of loss of use or costs of repair.
- Prioritization—Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the state highway system, allowing Caltrans to both reduce the costs of storm

damage and to provide and maintain transportation that meets the needs of all Californians.

*Project Adaptation Analysis*

*Sea-Level Rise*

The project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

*Floodplains*

The project is in or next to a Federal Emergency Management Agency Special Flood Hazard Area Zone A (a 100-year floodplain with no base flood elevation established). However, the Santa Maria River does not flow most of the year; in some years, it does not flow at all. Also, the river's flow is controlled upstream by a dam.

The river's maximum recorded discharge does not approach the 100-year flow rate, and no flooding related to the bridge is recorded. In addition, the project proposes to raise the bridge deck elevation to meet current requirements for freeboard (distance above water surface). Accordingly, the proposed bridge is likely to withstand anticipated increases in 100-year storm precipitation depth and storm intensity under future climate conditions.

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# Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis required, potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements. Agency consultation for this project has been accomplished through a variety of formal and informal methods, including Project Development Team meetings, interagency coordination meetings, and so on. Public participation will be sought through the release and review of this Initial Study with Proposed Mitigated Negative Declaration and Environmental Assessment. This chapter summarizes the results of Caltrans efforts to identify, address, and resolve project-related issues through early and continuing coordination.

*Biological Resource Coordination*

- August 29, 2018: The Caltrans Biologist obtained an official list of threatened and endangered species from the U.S. Fish and Wildlife Service - Information, Planning and Consultation database.
- August 29, 2018: The Caltrans Biologist generated an official California Natural Diversity Database report for the project area and a half-mile buffer.
- August 29, 2018: The Caltrans Biologist generated a California Native Plant Society inventory of potentially affected rare plants for the project area.
- August 29, 2018: The Caltrans Biologist generated an official National Marine Fisheries Service inventory of potentially affected marine species for the project area.
- October 10, 2018: Caltrans Biologist Stephanie Herbert provided a California red-legged frog habitat assessment for the project area to U.S. Fish and Wildlife Service Biologist Dou Yang and explained that Caltrans intends to use the Programmatic Biological Opinion for this project.
- December 4, 2018: Stephanie Herbert contacted National Marine Fisheries Service Biologist Jessica Adams by email to discuss the historical and current use of the Santa Maria River by steelhead trout. Caltrans proposed that the project was not likely to adversely affect steelhead due to the infrequency of water released from Twitchell Dam, which limits the connectivity from the Pacific Ocean to the upper reaches of the Santa Maria watershed.

- December 17, 2018: Jessica Adams responded to Stephanie Herbert regarding the Southern California Steelhead Distinct Population Segment and associated critical habitat in the Santa Maria River. Ms. Adams confirmed that the Santa Maria River dries up seasonally, but that there are adequate over-summering habitats in the Sisquoc River and tributaries, therefore they are all designated critical habitat for steelhead. Ms. Adams also sent a survey report (Stoecker 2005) describing the historic and recent use of the Santa Maria watershed by steelhead. The report confirmed that the Santa Maria River is heavily influenced by the Twitchell Dam, which often does not release enough water to connect the Santa Maria watershed to the ocean, resulting in a dry season for the Santa Maria River that is long and predictable. The Stoeker report further stated that the Sisquoc River connects to the ocean only a few times per decade due to the Twitchell Dam.
- October 22, 2019: Stephanie Herbert reevaluated potential project impacts to La Graciosa thistle critical habitat after discussions with U.S. Fish and Wildlife Service Biologist Dou Yang.

*Cultural Resource Coordination*

- March 20, 2020: Caltrans Archaeologist Alvin Figueroa-Rosa sent out letters to regional Native American tribal groups as part of Section 106 and Assembly Bill 52 consultation efforts. Invitation for consultation was offered, and no formal consultation was requested by recipients.

# Chapter 5 List of Preparers

This chapter lists the Caltrans staff and consultant staff who were primarily responsible for the preparation and/or review of this document and/or supporting technical studies for this project.

*Caltrans Staff*

Carr, Robert. Associate Landscape Architect. B.S., Landscape Architecture, California Polytechnic University, San Luis Obispo; more than 25 years of experience preparing Visual Impact Assessments. Contribution: Visual Impact Assessment.

Fowler, Matt. Senior Environmental Planner. B.A., Geographic Analysis, San Diego State University; more than 19 years of experiences in environmental planning. Contribution: Oversight and review of the Initial Study.

Geramaldi. Associate Environmental Planner (Generalist). B.S., Environmental Geography, California Polytechnic University, Pomona; 4 years of environmental planning experiences. Contribution: Coordinated environmental process, oversight of the Initial Study, Farmland Assessment Memo.

Herbert, Stephanie. Associate Environmental Planner. B.S., Ecology, Evolution, and Biodiversity, Minor in Wildlife, Fish, and Conservation Biology; University of California, Davis; more than 5 years of experience in botany, wildlife biology, and restoration ecology. Contribution: Natural Environment Study.

Joslin, Terry L. Associate Environmental Planner (Arch). M.A., Anthropology, University of California, Santa Barbara; B.S., Anthropology/Geography, California Polytechnic State University, San Luis Obispo; more than 20 years of archaeology experience. Contribution: Cultural Resource review.

Kloth, Joel. Engineering Geologist. B.S., Geology, California Lutheran University; more than 30 years of experience in petroleum geology, geotechnical geology, and environmental engineering/geology-hazardous waste. Contribution: Initial Site Assessment.

Leyva, Isaac. Engineering Geologist. B.S., Geology, California State University, Bakersfield; A.S., Cuesta College, San Luis Obispo; more than 25 years of experience in petroleum geology, environmental,

geotechnical engineering. Contribution: Initial Site Assessment, Paleontology Technical Report, Water Quality Assessment.

Mikel, Karl J. Senior Transportation Engineer. B.S., Environmental Engineering, California Polytechnic State University, San Luis Obispo; M.S., Civil/Environmental Engineering, California Polytechnic State University, San Luis Obispo; more than 15 years of professional experience in air quality and noise assessment. Contribution: Air Quality, Noise and Greenhouse Gas Memo.

*ICF Staff*

Anaya, Mario. Senior Environmental Planner. MPA, Urban Planning, California State University-Northridge; B.A., Global Studies, University of California Los Angeles; more than 10 years of experience in environmental planning. Contribution: Preliminary preparation of the Initial Study.

Andersen, Jennifer. Senior Environmental Planner. B.A., International Relations, University of Southern California; more than 5 years of experience in environmental planning. Contribution: Preliminary preparation of the Initial Study.

Herron, Will. Environmental Planner. B.A., International Relations, University of Southern California; 3 years of experience in environmental planning. Contribution: Preliminary preparation of the Initial Study.

Johnson, Andrew, Environmental Planner. M.A., Public Policy, University of Southern California; B.A., Business Administration, Pepperdine University. Contribution: Preliminary preparation of the Initial Study.

Tong, Vincent, Environmental Planner. MPA, Urban Planning, University of California, Irvine; B.S., Environmental Engineering, University of California, San Diego; more than 5 years of experience in environmental planning. Contribution: Preliminary preparation of the Initial Study.

# Chapter 6 Distribution List

Guadalupe Branch Library - City of Santa Maria
4719 West Main Street
Guadalupe, CA 93434

City of Guadalupe Building and Planning Office
918 Obispo Street
Guadalupe, CA 93434

Nipomo Library of the County of San Luis Obispo
918 West Tefft Street
Nipomo, CA 93444

County of San Luis Obispo Planning Office
1055 Monterey Street
San Luis Obispo, CA 93408

County of Santa Barbara Planning Office
123 East Anapamu Street, 2nd Floor
Santa Barbara, CA 93101

U.S. Fish and Wildlife Service – Ventura Office
2493 Portola Road, Suite B
Ventura, CA 93003

U.S. Army Corps of Engineers District, Los Angeles
911 Wilshire Boulevard
Los Angeles, CA 90017

California Department of Fish and Wildlife – South Coast Region
3883 Ruffin Road
San Diego, CA 92123

California Department of Fish and Wildlife – Central Region
1234 East Shaw Avenue
Fresno, CA 93710

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA, 93401

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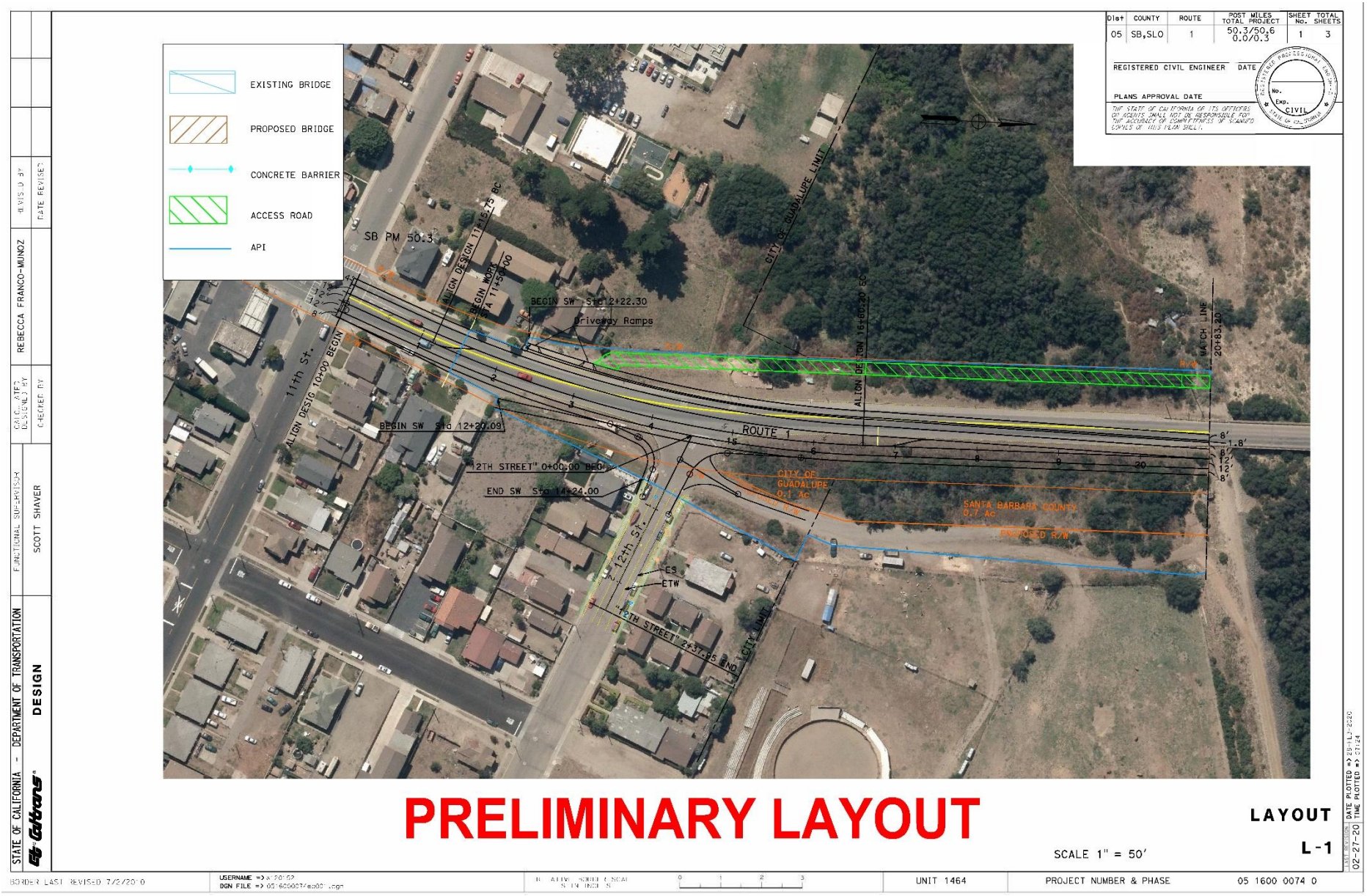
# **Appendix A** Preliminary Project Layout Map



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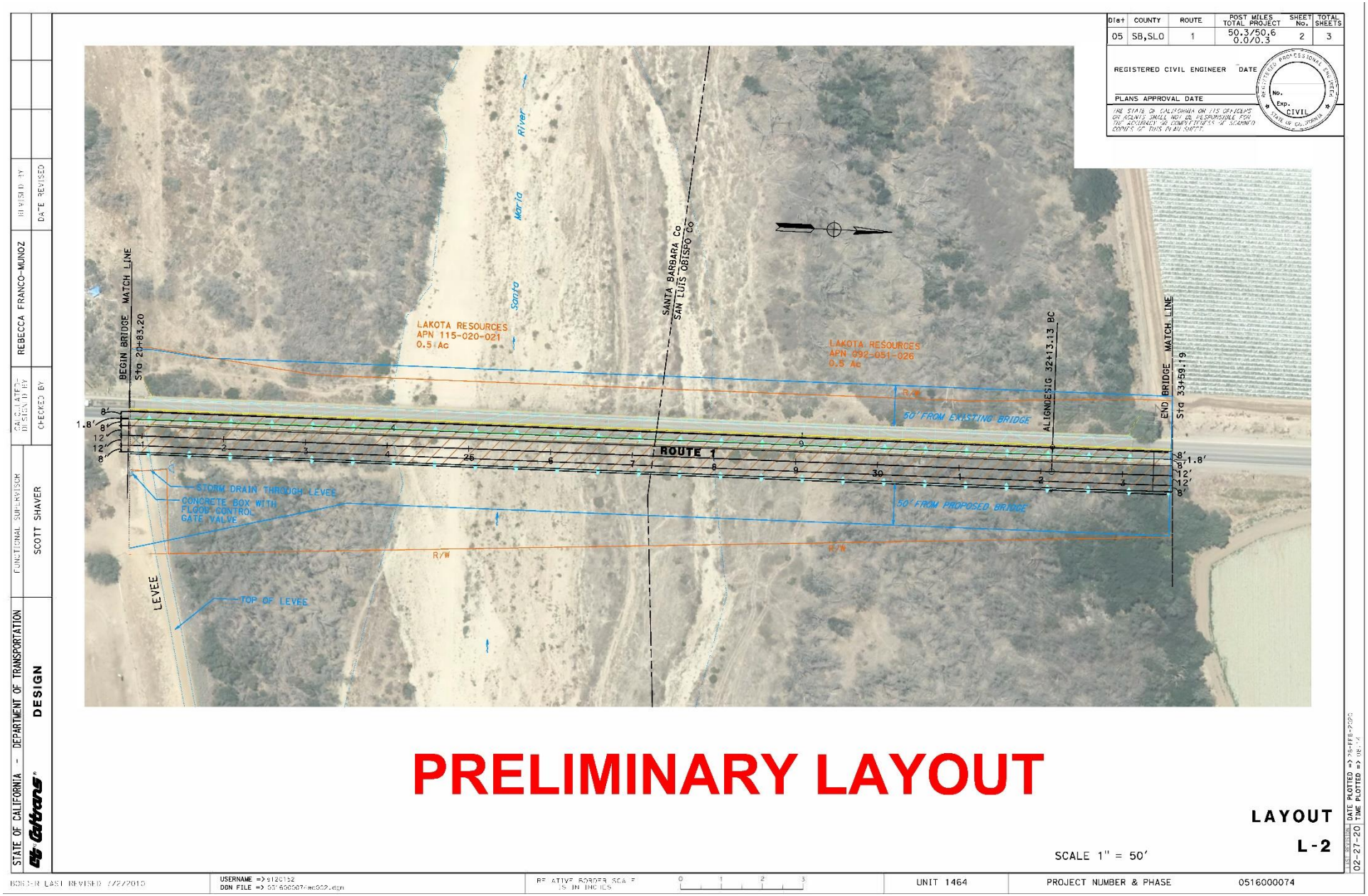
Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS
05 | SB,SLO | 1 | 50.3/50.6 0.0/0.3 | 2 | 3
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLANS SHEETS.
No. Exp. CIVIL
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR SCOTT SHAVER
CALCULATED/DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
REBECCA FRANCO-MUNOZ
BEGIN BRIDGE MATCH LINE Sta 20+83.20
Santa Maria River
SANTA BARBARA Co SAN LUIS OBISPO Co
LAKOTA RESOURCES APN 115-020-021 0.5± Ac
LAKOTA RESOURCES APN 092-051-026 0.5 Ac
ALIGNDESIG 32+13.13 BC
END BRIDGE MATCH LINE Sta 33+59.19
R/W
50' FROM EXISTING BRIDGE
ROUTE 1
STORM DRAIN THROUGH LEVEE
CONCRETE BOX WITH FLOOD CONTROL GATE VALVE
50' FROM PROPOSED BRIDGE
LEVEE
TOP OF LEVEE
PRELIMINARY LAYOUT
LAYOUT
L-2
SCALE 1" = 50'
DATE PLOTTED => 26-FEB-2020
TIME PLOTTED => 08:14
02-27-20
BORDER LAST REVISED 7/2/2013
USERNAME => s120152
DGN FILE => 05160000074mc002.dgn
RELATIVE BORDER SCALE IS IN INCHES
UNIT 1464
PROJECT NUMBER & PHASE 0516000074

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| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 05 | SB,SLO | 1 | 50.3/50.6<br>0.0/0.3 | 3 | 3 |

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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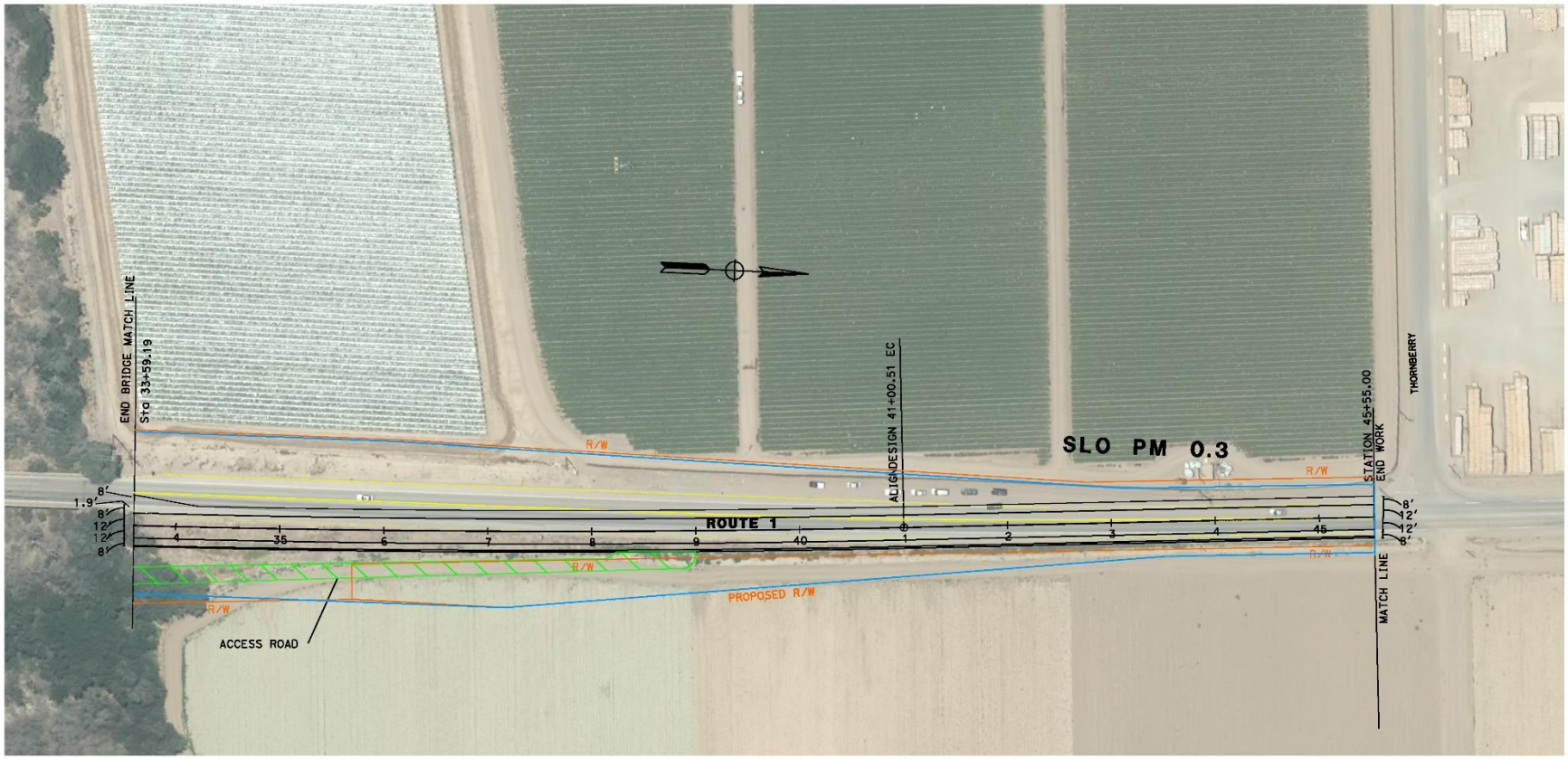


# PRELIMINARY LAYOUT

SCALE 1" = 50'

LAYOUT

L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | DESIGN | FUNCTIONAL SUPERVISOR: SCOTT SHAVER | CALCULATED-DESIGNED BY | CHECKED BY | REBECCA FRANCO-MUNOZ | REVISED BY | DATE REVISED

AST REVISION: DATE PLOTTED => 28-FEB-2020 TIME PLOTTED => 08:02

BORDER LAST REVISED 7/2/2010 | USERNAME => s120152 DGN FILE => 516000074ea003.cgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1464 | PROJECT NUMBER & PHASE 0516000074

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

| DIST | COUNTY | ROUTE | POST MILE |
|---|---|---|---|
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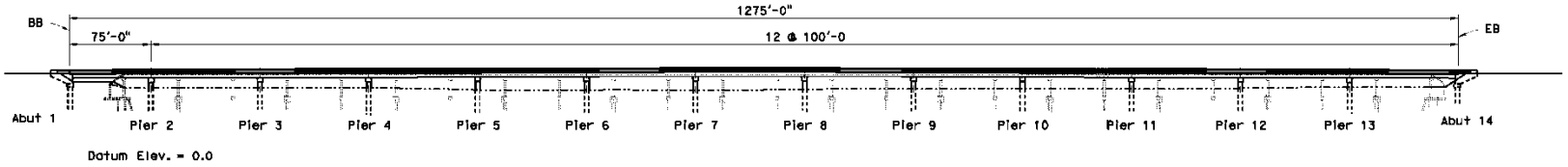



ELEVATION
1" = 50'

Risks/Assumptions:

1. Vehicular traffic will pass through construction site.Stage construction will be required.
2. Proposed Route 101 alignment assumed parallel to existing. Profile and stationing not provided.
3. Bottom of existing girder elevation assumed adequate for hydraulic conditions.
4. Beginning of bridge moved south to minimize impacts on existing levee. Final bridge limits to be determined during the design stage. Partial levee removal and construction cost to be determined by District.
5. Existing abutment 1 assumed to be left in-place to minimize levee impacts.
6. Shoring adjacent to traffic will be required during abutment construction.
7. Liquefaction potential is considered high.
8. Cast-in-steel shell (CISS) piles (3' dia @ abuts, 4' dia @ piers) are assumed at each support. Final pile type and length to be determined during the design stage. PA&ED phase geotechnical site work should be anticipated.
8. Bridge deck drainage is anticipated to discharge directly to the channel via scuppers or drop-through inlets.
9. Existing bridge mounted and overhead utility relocation cost to be determined by District.
10. Traffic control cost to be determined by District.
11. RSP cost, if any, at abutment embankments to be determined by District.
12. Access to and work within the river will be required during each stage. A 6-month work window is assumed. No environmental restrictions assumed within the work window.

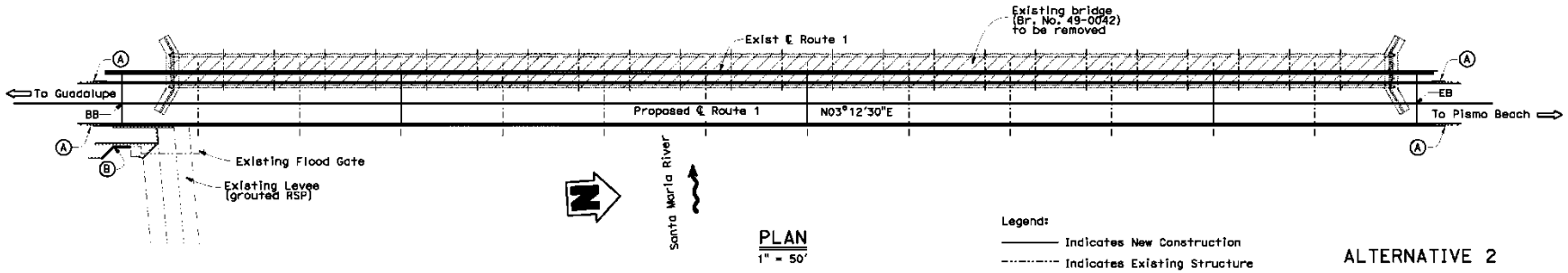
Notes:

1. For "Typical Section" see sheet 2
2. As-built datum shown

(A) MGS see Roadway Plans

(B) Drainage Inlet Retaining Structure or Culvert Extension. See Roadway Plans

| | | |
|---|---|---|
| DATE OF ESTIMATE | | 01-25-2017 |
| BRIDGE REMOVAL | = | $970,000 |
| STRUCTURE DEPTH | = | 4'-10" |
| LENGTH | = | 1275'-0" |
| WIDTH | = | 52'-0" |
| AREA | = | 66,300 ft$^2$ |
| COST/ SF INCLUDING TRO, MOBILIZATION & CONTINGENCY | = | $217 |
| TOTAL COST | = | $15,536,000 |




PLAN
1" = 50'

Legend:

——— Indicates New Construction

-·-·-·- Indicates Existing Structure

▨ Indicates Bridge Removal

ALTERNATIVE 2

Sheet 1 of 2

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED
DATE: 08-FEB-2017
Office of Structure Design
STATE OF CALIFORNIA

| | | | |
|---|---|---|---|
| DESIGNED BY | M. Downs | DATE | 11/2016 |
| DRAWN BY | M. Downs | DATE | 11/2016 |
| CHECKED BY | X | DATE | X |
| APPROVED | X | DATE | X |

STRUCTURE DESIGN BRANCH

PLANNING STUDY

SANTA MARIA RIVER BRIDGE

| | |
|---|---|
| UNIT: 3585 | BRIDGE No. 49-0042 |
| SCALE: As Noted | PROJECT No. & PHASE: 0516000074 |

CONTRACT No.: 05-1H440K

STRUCTURES DESIGN ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 08-09-10)

FILE =: 05-144-08. Concepts.dgn

DATE PLOTTED = 09-FEB-2017

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REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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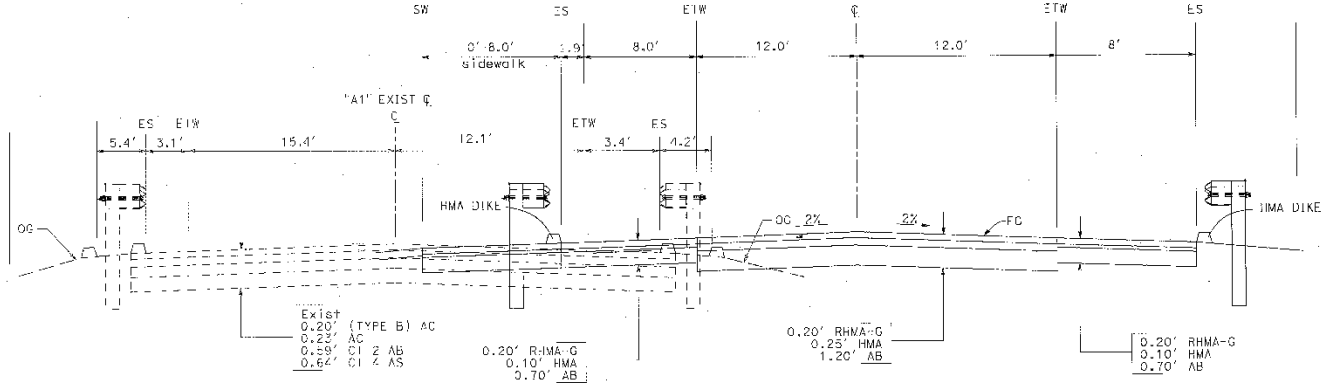
REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
FUNCTIONAL SUPERVISOR: SCOTT SHAVER
CALCULATED/DESIGNED BY: REBECCA MUNOZ
CHECKED BY: SCOTT SHAVER
RE-VISED BY
DATE RE-VISED

## DESIGN DESIGNATION

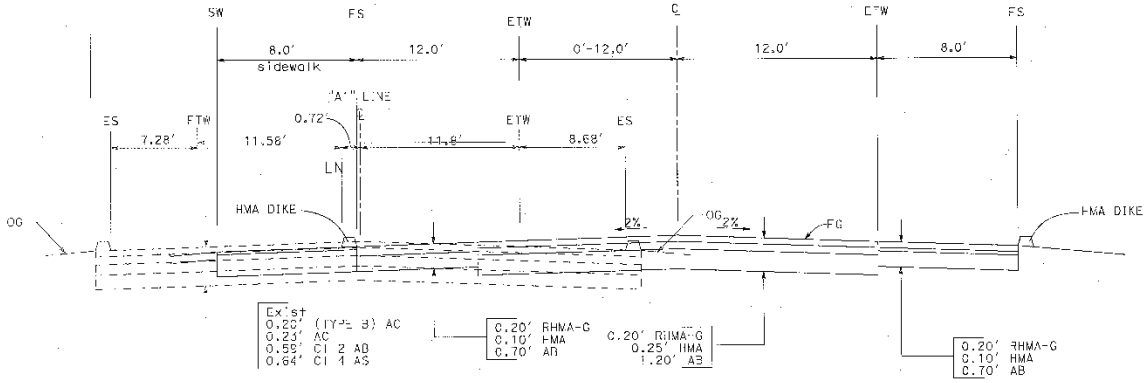
| | | | | | |
|---|---|---|---|---|---|
| ADT 2014 | 5,900 | DHV 2014 | 615 | D | 64% |
| ADT 2017 | 6,129 | DHV 2017 | 655 | T | 7% |
| ADT 2027 | 6,497 | DHV 2027 | 765 | V | 65 mph/35 mph |

PAVEMENT CLIMATE REGION:
CENTRAL COAST




Sta 33+59.19 to Sta 45+52.83

**ROUTE 1**




Sta 11+25.21 TO Sta 20+83.20

**ROUTE 1**

**TYPICAL CROSS SECTIONS**

NO SCALE

**X-1**

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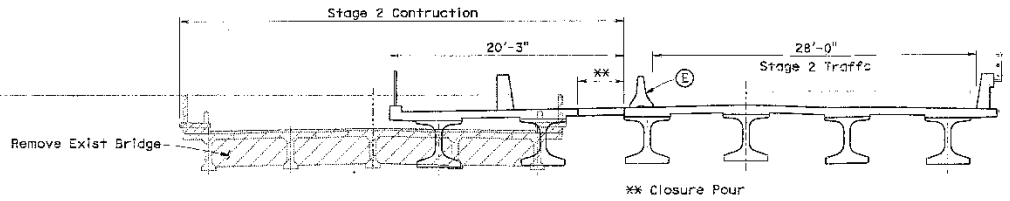
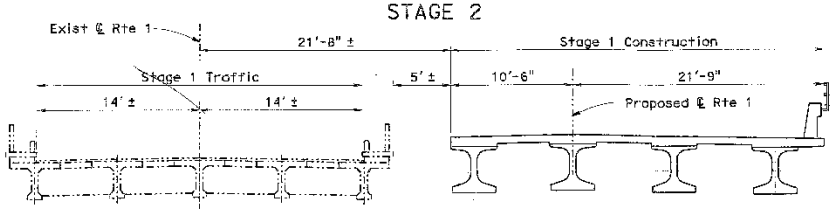
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

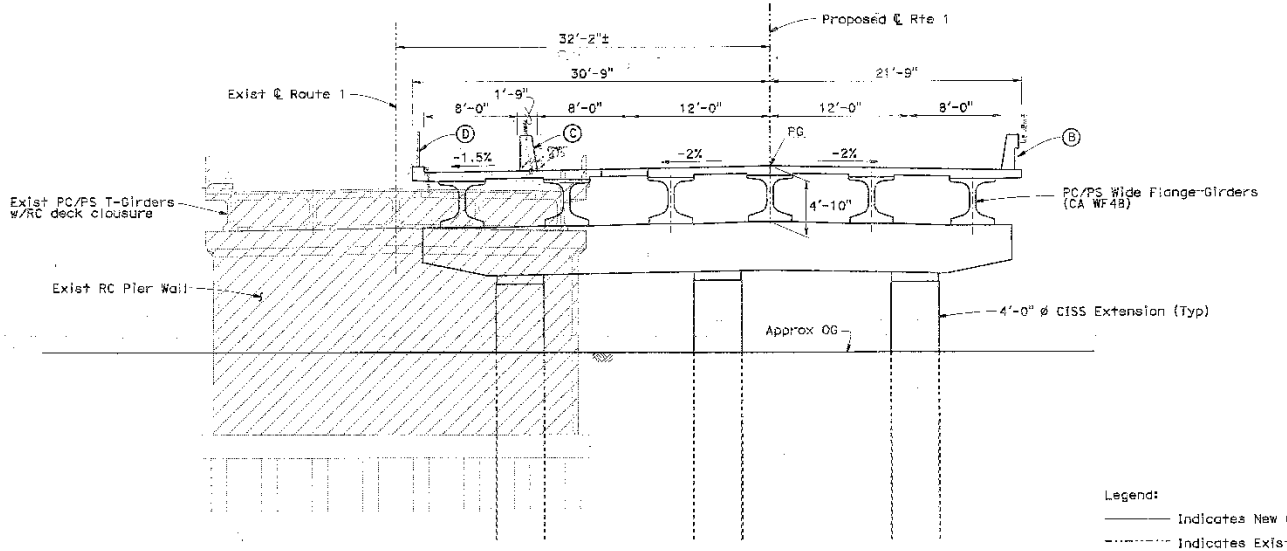
| DIST | COUNTY | ROUTE | POST MILE |
|---|---|---|---|
| 05 | SLO | 1 | - |




STAGE 2




STAGE 1




TYPICAL SECTION
1" = 5'

**Sta 20+83.20 to Sta 33+59.19**

Notes:
- (B) Concrete Barrier Type 736 w/Bicycle Railing
- (C) Concete Barrier Type 736 (mod)
- (D) Pedestrian Railing
- (E) Temporary Railing (Type K) see Roadway Plans

Legend:
- Indicates New Construction
- Indicates Existing Structure
- Indicates Bridge Removal

**Typical Cross Sections**

**X - 2**

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED
DATE: 08-FEB-2017
Office of Structure Design
STATE OF CALIFORNIA

| | | | |
|---|---|---|---|
| DESIGNED BY | M. Downs | DATE | 11/2016 |
| DRAWN BY | M. Downs | DATE | 11/2016 |
| CHECKED BY | X | DATE | X |
| APPROVED | X | DATE | X |

STRUCTURE DESIGN BRANCH

PLANNING STUDY

SANTA MARIA RIVER BRIDGE

| | |
|---|---|
| LIN: 3585 | BRIDGE No. 49-0042 |
| SCALE: As Noted | PROJECT No. & PHASE: 0516000074 |

CONTRACT No.: 05-1H440K

FILE => 05-1-440K_Concepts.dgn

STRUCTURES DESIGN ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 06-09-10)

USERNAME => S_KELTON DATE PLOTTED => 08 FEB 2017 TIME PLOTTED => 15:52

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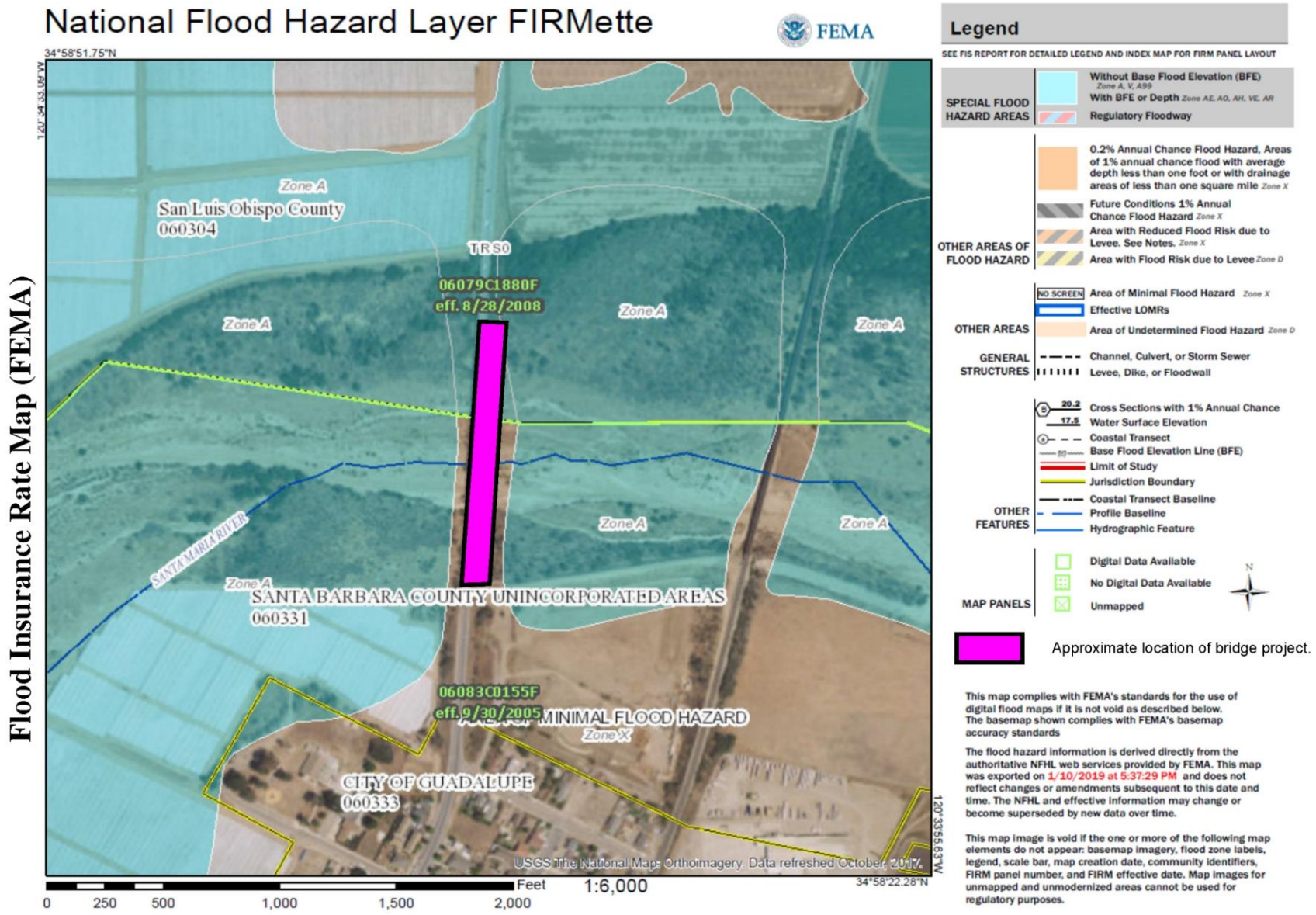
# **Appendix C** FEMA Flood Insurance Rate Map (FIRM)



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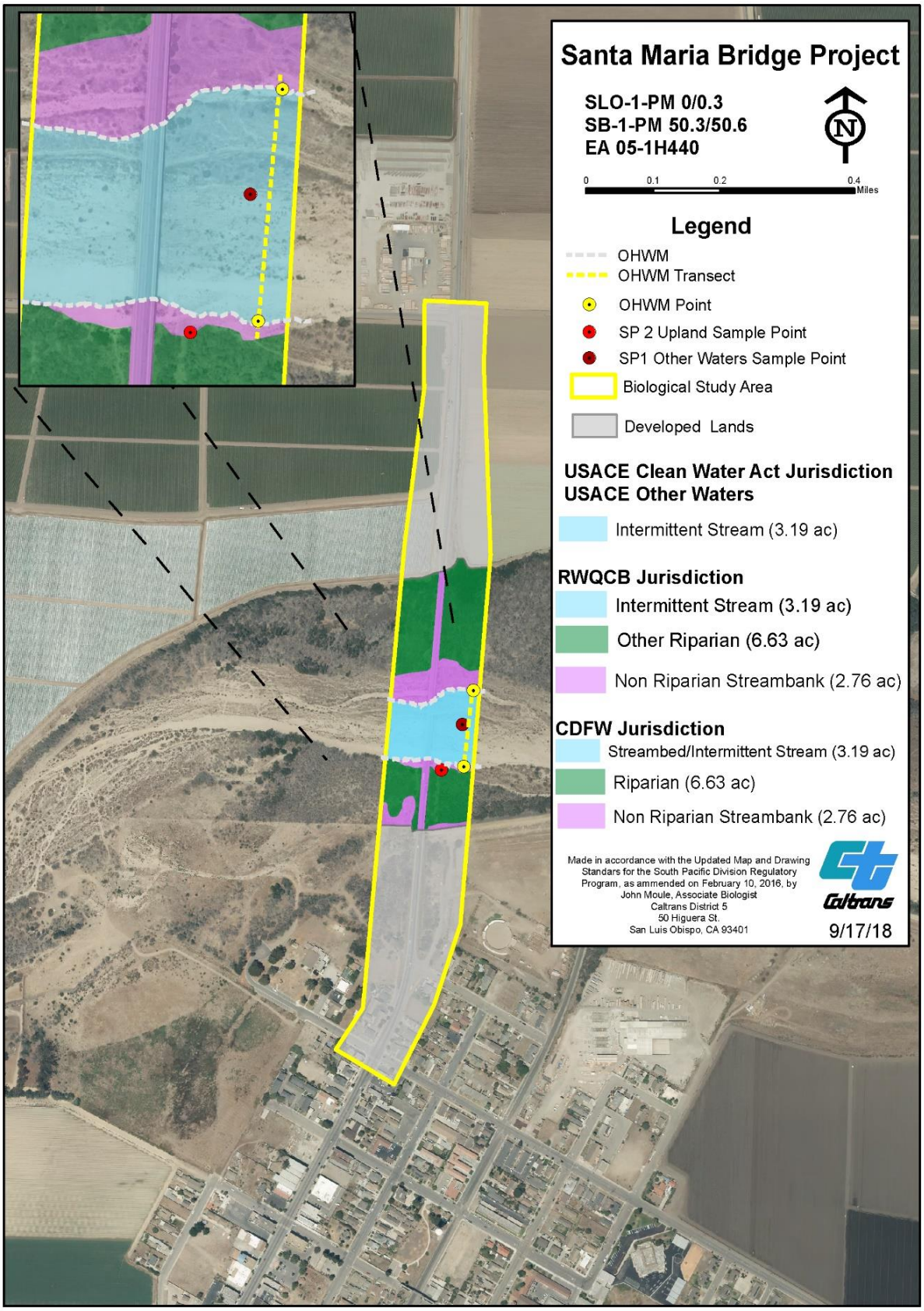
# **Appendix D** Jurisdictional Area Map



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# **Appendix E** Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

**DEPARTMENT OF TRANSPORTATION**
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

*Making Conservation a California Way of Life.*

November 2019

**NON-DISCRIMINATION POLICY STATEMENT**

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures "*No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.*"

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/business-and-economic-opportunity/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

Toks Omishakin
Director

*"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"*

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# **Appendix F** Avoidance, Minimization and/or Mitigation Summary

To ensure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record that follows) would be implemented. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in the Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. Because the following Environmental Commitments Record is a draft, some fields have not been completed; they will be filled out as each of the measures is implemented.

Note: Some measures may apply to more than one resource area. Duplicated or redundant measures have not been included in this Environmental Commitments Record.

*Farmland (Section 2.1.1)*

The following avoidance and minimization measures would be implemented to reduce potential impacts on farmland resources:

1) The project will limit the amount of right-of-way acquisition from adjacent farmland properties and acquire only the amount of right-of-way necessary for project completion.

2) To the extent possible, construction-related storage, staging, and access will avoid properties currently involved in agricultural activities or properties identified as prime farmland.

3) Infill materials to be used in the project will not be obtained from borrow sites composed of prime farmland.

4) Areas adjacent to farmland properties disturbed during construction will be re-stabilized using native vegetation and soils clear of invasive plants species at end of construction. Soil amendments, if used, must comply with the requirements of the California Food and Agricultural Code. Soil amendment must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.

5) The construction contract will include provisions to protect against the spread of invasive species.

6) When selecting sites for other project-related mitigation (e.g., wetland restoration, replanting, etc.), the project will avoid prime farmland to the extent possible.

7) Construction activities will be coordinated with local farmland operators to ensure that access to adjacent farmland properties is maintained during project construction.

8) Appropriate measures pertaining to dust control will be implemented during project construction.

*Utilities and Emergency Services (Section 2.1.2)*

The following avoidance and minimization measures have been incorporated in the proposed project to address the potential temporary adverse effects of project construction on utility services and emergency services.

*Utilities*

1) Temporarily relocated utilities will remain in operation during project construction.

2) Prior to utility relocation activities, coordination with utility users will be required to inform utility users about the date and timing of potential service disruptions.

3) The Caltrans Right of Way Manual and the Federal Utility Relocation and Accommodation on Federal Aid Highway Projects Program Guide will be used to process utility relocations.

*Emergency Services*

4) The Caltrans resident engineer assigned to the project will regularly coordinate with local emergency responders on project activities that could potentially affect emergency response times.

5) A Transportation Management Plan will be adopted to allow for emergency service vehicles to access the project site during construction to ensure that any response delays are minimal.

*Traffic and Transportation/Pedestrian and Bicycle Facilities (Section 2.1.3)*

1) Traffic control will be used to ensure continued access on State Route 1 during construction.

2) The project will include Caltrans Standard Specifications and Caltrans Standard Special Provisions to address potential traffic issues resulting from project construction and to provide potential traffic management strategies during construction.

*Visual/Aesthetics (Section 2.1.4)*

1) The type and appearance of all new bridge rail and bicycle and pedestrian railing will be determined in consultation with the city of Guadalupe. Open-type bridge and pathway railing will be considered in consultation with the City.

2) All existing overhead utilities adjacent to the new bridge will be either placed in the bridge structure or attached to the bridge in the least visible way, and/or placed underground.

3) All wing walls, retaining walls, and slope paving, if required, will be treated with a rough texture such as “rip-out” or other to discourage graffiti.

4) Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques that save the most existing vegetation possible should be used.

5) Revegetate all areas disturbed by the project with appropriate native plant species.

6) Following construction, re-grade and re-contour all new construction access roads, demolition areas, staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

*Cultural Resources (Section 2.1.5)*

The project will include the following Caltrans standard provisions dealing with the chance discovery of previously unknown cultural materials or human remains during project construction:

- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

- If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, who, pursuant to Public Resource Code Section 5097.98, will then notify the Most Likely Descendent. At this time, the person who discovered the remains will contact District 5 Environmental Branch so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Additional provisions of Public Resource Code 5097.98 are to be followed as applicable.

*Water Quality and Storm Water Runoff (Section 2.2.1)*

The project contractor will be required to comply with water pollution protection provisions of the Caltrans Standard Specifications and the National Pollutant Discharge Elimination System permit for Caltrans, as well as Section 20-3, Erosion Control, of the Caltrans Standard Specifications.

To minimize impacts on water quality and storm water runoff on this project, the following measures will be implemented:

1) The project will implement appropriate Best Management Practices and construction practices to minimize and avoid potential impacts to the river channel as a result of construction activities.

2) Work in the river will be performed during the dry season (typically from June to October) and only if there is no flow. When work is near streams, erosion and sediment controls will be implemented to keep sediment out of the stream channel.

3) A Storm Water Pollution Prevention Plan will be prepared prior to ground disturbance and implemented during construction as required per Caltrans standard practice.

4) The project will isolate equipment staging and spoil/material storage areas away from the river channel using appropriate storm water control barriers.

5) When in-channel work is required, the project will stabilize access routes to the river in order to reduce tracking of mud and dirt in and out of the river channel.

6) The project will preserve existing vegetation outside of the active work area.

7) The following Best Management Practice will be implemented:

    a) Install appropriate fencing to control sediment. Fencing should be installed only where sediment-laden water can pond, thus allowing the sediment to settle out.

    b) Install fiber rolls along the slope contour above the high-water level to intercept runoff, to reduce flow velocity, and to release the runoff as sheet flow and provide removal of sediment from the runoff. In a stream environment, fiber rolls should be used in conjunction with other sediment control methods.

    c) Use a gravel bag berm or barrier to intercept and slow the flow of sediment-laden sheet flow runoff. In a stream environment, gravel bag barriers can allow sediment to settle from runoff before water leaves

the construction site and can be used to isolate the work area from the stream. Gravel bag barriers are not recommended as a perimeter sediment control practice around streams.

*Geology, Soils, Seismicity and Topography (Section 2.2.2)*

The following avoidance and minimization measures will be implemented for the project:

1) The project will design the new structure according to Caltrans seismic standards, as provided in the Highway Design Manual, to reduce the potential of failure as a result of an earthquake, liquefaction, erosion or other geological hazards.

*Natural Communities (Section 2.3.1)*

The proposed measures would be implemented to avoid and minimize potential project impacts to natural communities.

In addition, it is anticipated that measures described in Section 2.3.2, Wetlands and Other Water, will also serve to avoid and minimize potential impacts to natural communities resulting from project activities.

1. Temporary environmental sensitive area fencing and/or flagging would be installed on the perimeter of the project area to prevent potential impacts on natural communities located outside of the project area.

2. At end of project construction, all areas temporarily impacted by project activities will be re-vegetated via erosion control seedings along the roadside and replacement tree plantings in the riparian zone.

3. All areas temporarily impacted by project activities would be returned to original grade and contour after construction.

*Wetland and Other Waters (Section 2.3.2)*

The following measures will be implemented to avoid and minimize the project's potential impacts on jurisdictional areas:

1) Prior to any ground-disturbing activities, temporary environmentally sensitive area fencing and/or flagging will be installed around wetland resources within the project limits to ensure these areas are not impacted by project activities. The location of environmentally sensitive areas will be included on design plans and delineated in the field prior to the start of construction.

2) During construction, all project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept by the contractor onsite at all times during construction.

3) During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will either be a minimum of 100 feet from jurisdictional areas or, if the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers (e.g., fiber rolls or equivalent). The staging areas will conform to Caltrans Construction Site Best Management Practices.

4) Each season after construction has been completed in jurisdictional areas, contours will be restored as close as possible to their original condition.

5) All trees removed will be replaced at a 1:1 or 3:1 ratio depending on their species and size.

6) Vegetated streambank disturbed by project activities will be revegetated with native seed mix that is consisted with the existing natural community type, but will not be monitored for success, as river flows could potentially disturb the streambank as part of natural geomorphic process typical of this type of river system.

*Animal Species (Section 2.3.4)*

The following avoidance and minimization measures will be implemented to reduce effects on animal species from project-related impacts:

1) Prior to initiation of stream dewatering, Caltrans staff will conduct a worker environmental training program, including a description of special-status species, their legal/protected status, their proximity to the project site, and avoidance/minimization measures to be implemented during the project.

*Bats*

The following measures apply to all bats protected by the California Department of Fish and Wildlife or under the California Environmental Quality Act and are intended to avoid impacts on night-roosting bats that may use the Santa Maria River Bridge:

2) No night work will occur during construction to avoid impacting or harming bats that may be using the new or existing Santa Maria River Bridge structures.

3) Specific day and night artificial bat roosting habitat and/or structures will be added to the new bridge structure. Day-roosting habitat in the form of wedges and small crevices that are just big enough for roosting bats will be provided on the new bridge. In addition, wooden bat boxes will be installed underneath the northern span of the new bridge. These bat boxes would provide wind brake and thermal buffer for night-roosting bats.

*American Badger*

The following measures are intended to avoid impacts to the American badger:

4) No less than 14 days and no more than 30 days prior to any construction activities or any project activity likely to impact the American badger, a preconstruction survey will be conducted for American badger. The survey will identify badger habitat features on the project site, evaluate use by badgers and, if possible, assess the potential impacts on the badger by the proposed activity. The status of all dens should be determined and mapped. Known dens, if found occurring within the footprint of the activity, will be monitored for 3 days with tracking medium to determine the current use. If no badger activity is observed during this period, the den will be destroyed immediately to preclude subsequent use. If badger activity is observed at the den during this period, the den will be monitored for at least 5 consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Only when the den is determined to be unoccupied will the den be excavated under the direction of the biologist.

5) If the preconstruction survey reveals an active den or new information regarding badger presence within the area of potential impact, Caltrans will notify the California Department of Fish and Wildlife.

6) Prior to ground breaking, a qualified biologist will conduct an environmental education and training session for all construction personnel. Prior to, during, and after the site-disturbance and/or construction phase, use of pesticides or herbicides should be in compliance with all federal, state, and local regulations. No rodent control pesticides will be used, including anticoagulant rodenticides such as brodifacoum, bromadiolone, difethialone, and difenacoum. This is necessary to minimize the possibility of primary or secondary poisoning of the American badger or other special-status species.

7) Project employees will be directed to exercise caution when driving within the project area. A 20-mile-per-hour speed limit will be strongly encouraged within the project site. Construction activity will be confined within the project site, which may include temporary access roads and staging areas specifically designated and marked for these purposes.

8) A litter control program will be instituted at each project site. No canine or feline pets or firearms (except for law enforcement officers and security personnel) will be permitted on construction sites to avoid harassment, killing, or injuring of badger.

9) Maintenance and construction excavations greater than 2 feet deep will be covered (e.g., with plywood, sturdy plastic, steel plates, or equivalent),

filled in at the end of each working day, or have escape ramps no greater than 200 feet apart to prevent trapping badger.

*Coast Horned Lizard and Northern California Legless Lizard*

The following measures are intended to avoid impacts to the coast horned lizard and northern California legless lizard:

10) Initial excavation and vegetation removal will be monitored by a Caltrans District biologist.

11) Coast horned lizards, northern California legless lizards, or any species (excluding state or federal listed species) discovered during monitoring will be captured and relocated by a Caltrans biologist to suitable habitat outside of the area of potential impact. Observations of Species of Special Concerns or other special-status species will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

12) Preconstruction surveys will occur within 14 days of construction. Caltrans biologists will place plywood boards around the bridge to attract local legless lizards. If legless lizards are found during these checks, they will be relocated outside the construction area.

*Nesting Birds*

Impact avoidance and minimization measures listed for jurisdictional areas would also apply to all bird nesting habitat impacted by the proposed project. The following additional measures will also apply to all birds protected by the Migratory Bird Treaty Act and California Fish and Game Code 3503:

13) If feasible, vegetation removal for this project will be scheduled to occur from September 1 to January 31, outside of the typical nesting bird season, to avoid potential impacts on nesting birds.

14) If vegetation removal or other construction activities are proposed to occur during the nesting season (February 1 to August 31), a nesting bird survey will be conducted by a Caltrans biologist no more than 3 days prior to construction.

15) During construction, active bird nests will not be disturbed and eggs or young of native migratory birds covered will not be killed, destroyed, injured, or harassed at any time. Environmentally sensitive area designations will be in place where nests must be avoided. Environmentally sensitive areas will be established by a qualified biologist, and work in environmentally sensitive area zones can only occur under the supervision of a biological monitor, depending on sensitivity of the species in question, until young birds have fledged (permanently left the

nest) or the qualified biologist has determined that nesting activity has otherwise ceased.

16) Trees to be removed will be noted on design plans. Prior to any ground-disturbing activities, high visibility fencing, or flagging will be installed around the dripline of trees to be protected within project limits.

17) No rodent control pesticides will be used, including anticoagulant rodenticides such as brodifacoum, bromadiolone, difethialone, and difenacoum. This is a necessary precaution to avoid secondary poisoning to raptors that hunt and feed on rodents and other small animals.

*Threatened and Endangered Species (Section 2.3.5)*

The following measures will be implemented to protect threatened and endangered species from potential project-related impacts:

*La Graciosa Thistle Federally Designated Critical Habitat*

The following measures would mitigate potentially significant impacts to La Graciosa critical habitat to less than significant under CEQA.

Avoidance and minimization measures discussed in Wetland and Other Waters (Section 2.3.2) are also applicable to federally designated critical habitat for the La Graciosa thistle. In addition, the following measures are proposed to further mitigate potential impacts on critical habitat:

1) To preserve as much seedbank as feasible, the first 6 inches of topsoil will be stockpiled and preserved before construction and will be returned to the Santa Maria River and associated riparian zone after construction work is completed.

2) The Biological Study Area will be seeded with an appropriate native seed mix to enhance and restore La Graciosa thistle critical habitat.

*Southern California Steelhead Critical Habitat*

The following measures will be implemented to avoid and minimize potential adverse impacts on Southern California steelhead critical habitat:

3) Prior to construction, a qualified biologist will conduct a worker environmental training program that will include a description of protected species and habitats, their legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating the Federal Endangered Species Act and other relevant permit conditions.

4) During construction, in-stream work will be limited to June 15 and October 31, when the creek is dry. Deviations from this work window will only be made with concurrence from regulatory resource agencies.

5) In-stream construction work will be performed only in a dry work environment. Dewatering and clear water diversions are not anticipated, but if required will be performed according to Caltrans Construction Site Best Management Practices (2017). The upstream and downstream passage of adult and juvenile fish will be maintained at all times, according to current National Marine Fisheries Service guidelines and criteria.

6) Prior to construction, the contractor will prepare and sign a Water Pollution Control Plan or a Storm Water Pollution Prevention Plan that complies with the Caltrans Storm Water Quality Handbook (Caltrans 2017). Provisions of this plan will be implemented during and after construction as necessary to avoid and minimize erosion and storm water pollution in and near the work area.

7) During construction, all project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept by the contractor onsite at all times during construction.

8) During construction, erosion control measures will be implemented. Silt fencing, fiber rolls, and barriers will be installed as needed between the project site and jurisdictional waters and riparian habitat.

9) During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will either be a minimum of 100 feet from aquatic areas or, if the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers (e.g., fiber rolls or equivalent). The staging areas will conform to Caltrans Construction Site Best Management Practices applicable to attaining zero discharge of storm water runoff.

10) Immediately upon completing in-channel work, all in-channel structures will be removed in a manner that minimizes disturbance to downstream flows and water quality.

11) All temporary excavations and fills within project limits will be removed in their entirety and the affected areas returned to preconstruction elevations.

*Southern and South-Central Coast California Steelhead*

Avoidance and minimization measures for Southern California steelhead critical habitat apply to steelhead species as well. In addition, the following measure will be implemented to avoid and minimize potential adverse impacts to steelhead trout resulting from the project:

12) During construction, no in-stream work will occur during the wet season. No work will occur in the river channel while there are surface flows.

*Southwestern Willow Flycatcher, Least Bell's Vireo, and Swainson's Hawk*

Avoidance and minimization measures as discussed for animal species (Section 2.3.4) will also apply to these bird species. In addition, the following measure will be implemented specifically for these three species:

13) If an active nest for the southwestern willow flycatcher or least Bell's vireo is found within 100 feet of the biological study area, or if a Swainson's hawk nest is found 500 feet from the biological study area, all project activities will immediately cease while Caltrans coordinates with applicable regulatory agencies and determines if additional measures are necessary.

*California Red-Legged Frog*

The following measures would mitigate potentially significant impacts to California red-legged frog to less than significant under CEQA.

Avoidance and minimization measures discussed in Wetland and Other Waters (Section 2.3.2) will also avoid and minimize temporary and long-term impacts to the California red-legged frog and its habitat.

14) Only U.S. Fish and Wildlife Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

15) Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

16) A U.S. Fish and Wildlife Service approved biologist will survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site will be in the same drainage to the extent practicable. Caltrans will coordinate with the U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

17) Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the

training session, provided that a qualified person is on hand to answer any questions.

18) A U.S. Fish and Wildlife Service-approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans will designate a person to monitor onsite compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist will ensure that this monitor receives the training outlined in measure TE-18 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the U.S. Fish and Wildlife Service during review of the proposed action, they will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring that all actions that are causing these effects to be halted. When work is stopped, the U.S. Fish and Wildlife Service will be notified as soon as possible.

19) During project activities, all trash that may attract predators or scavengers will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

20) Without the express permission of the U.S. Fish and Wildlife Service, all refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

21) Habitat contours will be returned to a natural configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible, or modification of original contours would benefit the California red-legged frog.

22) The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to achieve the project. Environmentally sensitive areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and to minimize the impact on California red-legged frog

habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

23) Caltrans will attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

24) To control sedimentation during and after project completion, Caltrans will implement Best Management Practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act, received for the project. If Best Management Practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

25) If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh with openings not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.

26) Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that may attract California red-legged frogs.

27) A U.S. Fish and Wildlife Service-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus; Procambarus clarkia*), and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

28) If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

29) To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force will be followed at all times.

30) Project sites will be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

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

    a. Caltrans will not use herbicides during the breeding season for the California red-legged frog.

    b. Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur.

    c. Giant reed and other invasive plants will be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®.

    d. Licensed and experienced Caltrans staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site.

    e. All precautions will be taken to ensure that no herbicide is applied to native vegetation.

    f. Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water).

g. Foliar applications of herbicide will not occur when wind speeds are in excess of 3 mi per hour.

h. No herbicides will be applied within 24 hours of forecasted rain.

i. Application of all herbicides will be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all applications are made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.

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

*Invasive Species (Section 2.3.6)*

To ensure that the project does not promote the introduction or spread of invasive plant species in to the biological study area, Caltrans Standard Specifications, appropriate Best Management Practices, along with measures from Wetland and Other Waters (Section 2.3.2) and measures from Threatened and Endangered Species (Section 2.3.5) will be implemented.

*Construction Impacts (Section 2.4)*

These avoidance and minimization measures will be implemented to reduce potential impacts as a result of project construction activities.

*Parks and Recreational Facilities*

1) Any avoidance or minimization measures required to address temporary construction-related impacts to air quality and noise would be applicable to minimize potential construction-related impacts on parks and recreational facilities.

*Air Quality*

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

3) The provisions of Caltrans Standard Specification, Section 10-5 “Dust Control” and Section 14-9 “Air Pollution Control,” require the contractor to comply with all California Air Resources Board and San Luis Obispo County Air Pollution Control District rules, ordinances, and regulations.

4) The project-level Storm Water Pollution Prevention Plan will address water pollution control measures that cross-correlate with standard dust emission minimization measures, such as covering soil stockpiles, watering haul roads, watering excavation, and grading areas, and so on.

5) A Debris Containment and Collection Plan will need to be included in the project special provisions (approved by the project resident engineer) to effectively capture and collect all demolition debris and waste materials, preventing any material from entering the creek channel or migrating offsite during windy conditions. All stockpiled construction debris should at a minimum be covered daily or be off hauled as soon as possible.

6) If inspections during construction determines that lead paint or asbestos is present, the project may need to implement Work Area Monitoring of the ambient air and soil in and around the work area to verify the effectiveness of any containment system.

*Noise*

7) Project construction would be conducted in accordance with Caltrans Standard Specification Section 14.8-02.

8) The following measures would be included in the contract special provision to further minimize noise impacts:

    c. Each internal combustion engine, used for any purpose on the job, or related to the job, will be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine will be operated on the job site without an appropriate muffler.

    d. Notify surrounding residences in advance of the construction schedule when unavoidable construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice will be given 2 weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The District 5 Public Information Office posts notice of proposed construction and potential community impacts after receiving notice from the resident engineer.

10) The following measures will be implemented to minimize temporary construction impacts:

    a. Limit all phases of construction to acceptable hours, Monday through Friday. Night work will not be conducted unless it is necessary for project completion.

    b. Shield especially loud pieces of stationary construction equipment.

    c. Locate portable generators, air compressors, etc., away from sensitive noise receptors.

    d. Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.

    e. Place heavily trafficked areas (such as the maintenance yard) and construction-oriented operations in locations that would be the least disruptive to surrounding sensitive noise receptors.

    f. Ensure that all equipment items have the manufacturers' recommended noise abatement measures—such as mufflers, engine covers, and engine vibration isolators—intact and operational. Internal combustion engines used for any purpose on or related to the job will be equipped with a muffler or baffle of a type recommended by the manufacturer.

    g. Consult District noise staff if complaints are received during the construction process.

*Emergency Services*

10) During project construction, Caltrans resident engineer will contact and inform local emergency service providers of construction activities that could potentially affect emergency access or emergency response times. Caltrans resident engineer will coordinate with emergency responders to avoid potential conflicts with establish emergency response plans.

11) The project will employ temporary traffic control and temporary traffic management during construction to ensure emergency access through the project site and on State Route 1 is maintained.

*Traffic and Transportation*

12) Traffic access through on State Route 1 will be maintained during project construction. The project will employ temporary traffic control and temporary traffic management to allow traffic to access the project limits.

*Community Character*

13) The project will incorporate aesthetic treatments and/or design features that may be required as part of any planned community identifiers.

# List of Technical Studies

- Structures Preliminary Geotechnical Report (November 7, 2016)
- Air Quality and Green House Gas Memo (April 10, 2018)
- Water Quality Assessment Memorandum (July 25, 2018)
- Paleontology Review Memorandum (July 26, 2018)
- Noise Study Report (October 18, 2018)
- Location Hydraulic Study (January 10, 2019)
- Hazardous Waste Initial Site Assessment Memorandum (March 9, 2018)
- Visual Impact Assessment (March 15, 2019)
- Farmland Assessment Memo (April 17, 2019)
- Cultural Resources Review (September 23, 2019)
- Natural Environment Study (November 22, 2019)

To obtain a copy of one or more of these technical studies/reports/memos or the Initial Study document, please send your request to the following email address along with the following information:

- Info-d5@dot.ca.gov
- Provide your name and email address or a U.S. postal service mailing address.
- Please indicate the project name and project identification number (located on the front cover of this document, below the project name) and specify the studies or documents you would like copies of.
- For individuals with sensory disabilities, studies and documents can be made available in Braille, in large print, on audiocassette or on a computer disk. Please let us know if you require one of these alternate formats.

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