

Santa Maria River Bridge Replacement

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-PM 50.3/50.6; PM 0.0/0.3

EA 05-1H440

Project ID 0516000074

State Clearinghouse Number: 2020050455

Initial Study with Mitigated Negative Declaration and Environmental Assessment with Finding of No Significant Impact



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. Code 327 and the Memorandum of Understanding dated December 23, 2016, and executed by the Federal Highway Administration and Caltrans.

October 2020



General Information about this Document

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Initial Study with Mitigated Negative Declaration/Environmental Assessment with Finding of No Significant Impact, which examines the potential environmental impacts of alternatives being considered for the project in San Luis Obispo County and Santa Barbara County, California. Caltrans is the lead agency under the National Environmental Policy Act. Caltrans is the lead agency under the California Environmental Quality Act.

This document explains why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each alternative and the proposed avoidance, minimization and/or mitigation measures associated with the project.

The Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment was circulated to the public for 42 days between May 21, 2020 and July 2, 2020. Comments received during this period are included in Appendix H, Comment Letters and Responses.

Additional copies of this document and the related technical studies are available for review at the Caltrans District 5 Office at 50 Higuera Street, San Luis Obispo, California 93401.

This document can be downloaded at the following website:
<https://dot.ca.gov/caltrans-near-me/district-5>

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, California 93401; 805-542-4603 (Voice), or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.

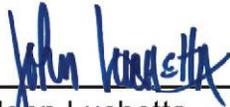
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Replace the existing Santa Maria River Bridge on State Route 1 at the border of San Luis Obispo County and Santa Barbara County, just north of the City of Guadalupe

**INITIAL STUDY
with Mitigated Negative Declaration and
ENVIRONMENTAL ASSESSMENT
with Finding of No Significant Impact**

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

November 25, 2020

Date

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CALIFORNIA DEPARTMENT OF TRANSPORTATION

Finding of No Significant Impact (FONSI)

For the Santa Maria River Bridge Replacement Project

The California Department of Transportation (Caltrans) has determined that the Build Alternative will have no significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment, which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope and content of the attached Environmental Assessment and incorporated technical reports.

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. Code 327 and the Memorandum of Understanding dated December 23, 2016, and executed by the Federal Highway Administration and Caltrans.



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

November 25, 2020

Date

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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 will be built next to the existing bridge, which will be removed once construction of the new bridge structure is complete. The new bridge will conform to current design and safety standards. The project will also realign roadways, replant vegetation, and relocate utilities. State Route 1 will remain open to traffic during project construction, and temporary traffic control will be required.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the project will not have a significant effect on the environment for the following reasons:

The 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 project would have less than significant effects to 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 materials, and visual/aesthetics resources.

With the following mitigation measures incorporated, the project would have a less than significant effect to biological resources.

Biological Resource Mitigation Measures

- California red-legged frog habitats disturbed by project-related activities will be returned to their natural configuration at the end of project construction. This measure will be implemented in all areas disturbed by project-related activities, unless it is not feasible, or if a change to the original condition will better benefit California red-legged frogs.
- The project's Biological Study Area will be re-seeded with an appropriate native seed mix to enhance and restore La Graciosa Thistle critical habitat at the end of project construction.
- Project sites will be revegetated with native riparian, and upland vegetation suitable for the area at the 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
CEQA and NEPA Lead Agency

November 25, 2020

Date

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, 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).

1.1.1 NEPA Assignment

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 U.S. Code 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 U.S. Code 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 U.S. Code 327 (NEPA Assignment Memorandum of Understanding) with the Federal Highway Administration. The NEPA Assignment Memorandum of Understanding became effective on 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 Caltrans under the 23 U.S. Code 326 CE Assignment Memorandum of Understanding, 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 provides a preliminary layout of the project.

Figure 1-1 Project Vicinity Map

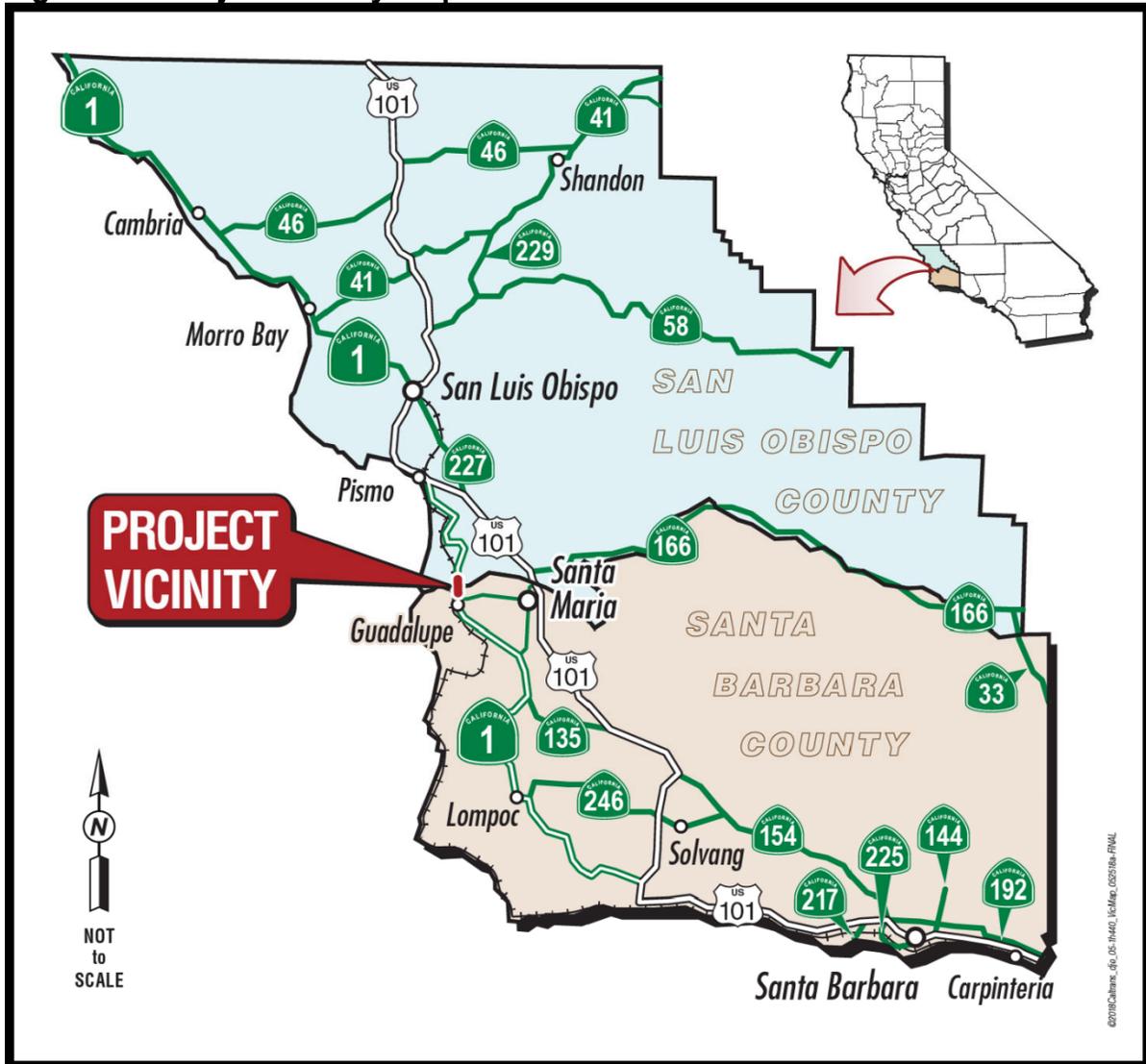
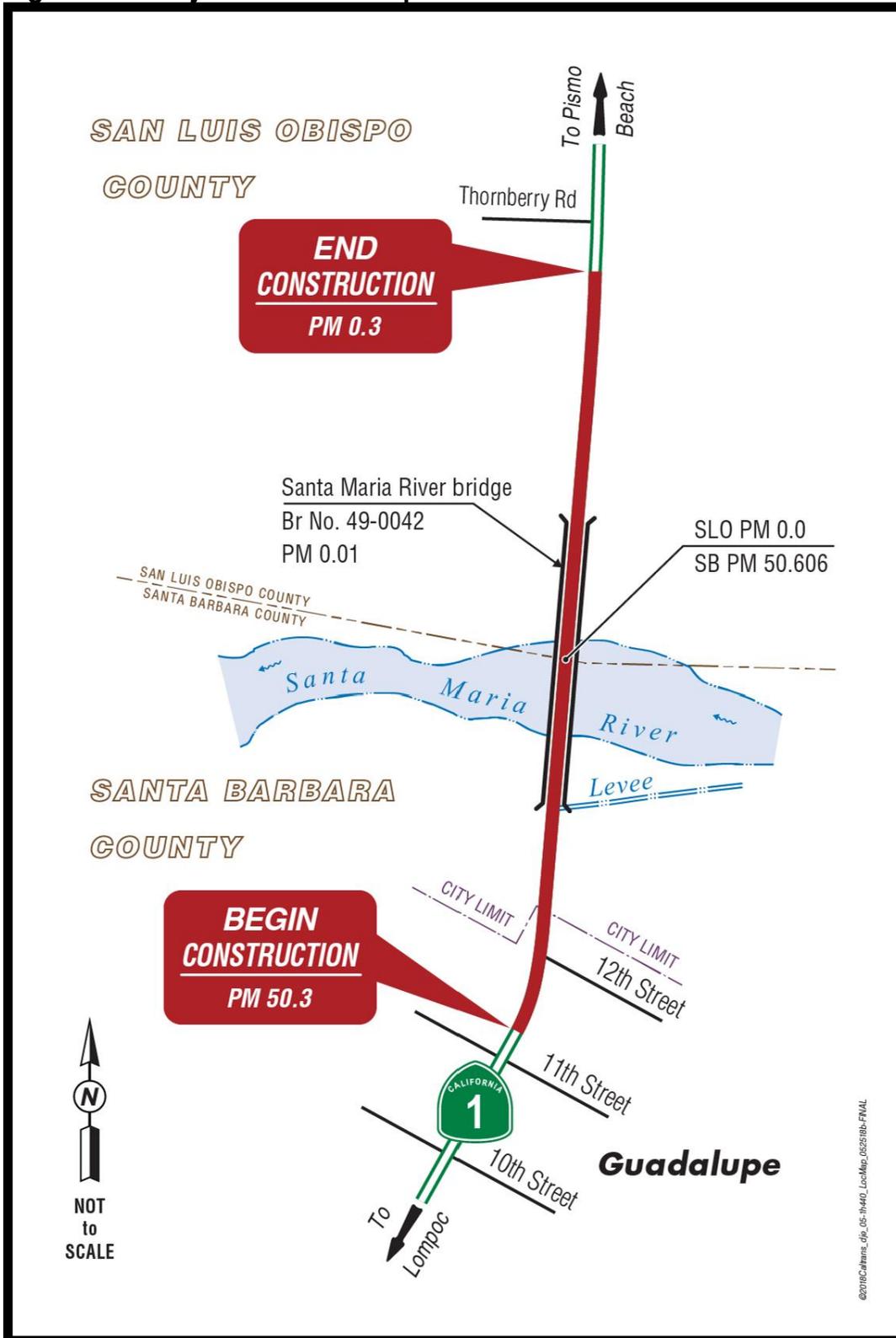


Figure 1-2 Project Location Map



The project will 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 County Association of Governments' approved Regional Transportation Plan (2017).

The estimated cost of project construction is approximately \$29,727,000, with an estimated escalated cost of approximately \$33,261,000. Project construction is expected to start in the 2022/2023 fiscal year. The project is expected to be completed in the 2025/2026 fiscal year. Construction personnel are expected to work on the project for about 530 working days, or 24 working months (typically 22 days per working month). It will take up to three construction seasons—typically from June to October—to complete the work.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to restore the structural integrity of the Santa Maria River Bridge to ensure the serviceability of State Route 1 and to maintain a 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, replacing the Santa Maria River Bridge is required.

1.3 Project Description

Caltrans plans to replace the existing Santa Maria River Bridge structure. Past bridge inspections have identified multiple signs 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 started to deteriorate due to the presence of alkali-silica reactions. Alkali-silica reactions are chemical reactions that cause concrete to swell and crack when exposed to moisture. The presence of alkali-silica reactions causes concrete to spall, which exposes rebar 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. Caltrans' investigation has determined the existing bridge to be a "scour critical bridge," which is defined as a bridge that is predicted to fail under certain flood magnitudes. 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 to replace the existing bridge, remove alkali-silica reactions from the structure, and address the scour issue to restore the reliability of access to State Route 1 across the Santa Maria River.

The Santa Maria River Bridge was built in 1955 and seismically retrofitted in 1998. The structure is about 1,200 feet long and about 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 each direction, two 2-foot shoulders, and two 2.5-foot curbs with concrete curb rails and metal bridge rails. There is no designated pedestrian path on the bridge.

The project is on the Santa Maria River, which is dry most of the year; the riverbed consists of a sandy channel with mixed vegetation along its banks. Though the riverbed is dry most of the year, the river does flow during heavy storms and when operations at Twitchell Dam discharge water.

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

The project will construct a new wider bridge structure that will meet Caltrans' current design standards and be capable of providing improved pedestrian and bicycle access across the bridge. New abutments and piers will also be built for the new bridge structure. Project construction will involve roadway paving, guardrail upgrades, sidewalk work, and creation of more multimodal access.

The project will require permanent new right-of-way and temporary construction easements. The permanent new right-of-way will be next to the 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. It is expected 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 installed. During project construction, the speed limit in the project area will be temporarily reduced to 45 to 55 miles per hour.

Also, the project will include Caltrans' standard measures and plans that are typically included in all Caltrans projects. Caltrans' standard measures and plans are considered features of the project and are evaluated as a part 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 part of the project's design to address 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 do. Caltrans' standard measures and plans typically include, but are 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 standards, Caltrans Standard Specifications, Caltrans Standard Special Provisions, and Caltrans Non-Standard Special Provisions.

Chapter 2 discusses the effects the project may have on the surrounding environment.

1.4 Project Alternatives

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

An interdisciplinary team developed the alternatives that are under consideration 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 project, including the project's purpose and need, cost, design, construction strategies, and environmental impacts.

1.4.1 Build Alternative

The Build Alternative, originally identified as Alternative 2 during preliminary stages of the project, will replace the existing Santa Maria River Bridge with a new wider bridge structure on a new alignment. The new bridge will be realigned about 34 feet east from the center line of the existing bridge. The new bridge deck will be thicker, and its elevation will be raised by 2 feet. The new bridge will be about 1,300 feet long and consist of 12 spans and 12 pier structures. Each pier structure will consist of three columns that will be connected by a pier cap. A new bridge abutment will be built to accommodate the wider bridge structure. The new bridge will include two 12-foot-wide lanes with 8-foot-wide outside shoulders. Bicycles will have access on the new bridge via the 8-foot-wide outside shoulders. An 8-foot-wide protected pathway will be included on the southbound (west) side of the new bridge for pedestrian and bicycle use. Standard traffic and pedestrian railings will be installed on the new bridge. The new bridge design will reduce the number of structural and human-made elements in the river. Building the new bridge is not expected to change the existing levee structure along the river.

The new bridge will be built in two stages. The first stage will involve building a new northbound lane on a new alignment to the east of the existing bridge. The existing

northbound lane will be removed after construction of the new northbound lane is complete.

The second stage will involve building a new southbound lane on a new alignment to the west of the new northbound lane. The existing southbound lane will be removed after construction of 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 the new bridge, depending on construction. The existing roadway transitions north and south of the bridge structure and will require pavement adjustments and restriping to fit the new bridge alignment.

This alternative will also install sidewalks, adjust curbs and gutters, upgrade existing guardrails, install shoulder backing, and add pedestrian crossings. The new bridge structure will be within the existing state right-of-way. Additional state rights-of-way will be required for the roadway adjustments at the north and south ends of the bridge to tie in with the existing highway alignment. Partial property acquisition of nearby properties is expected for this alternative.

The estimated cost of the new bridge structure is \$20,457,000. The project is expected to be completed in about 530 working days or about 24 working months (typically 22 days per working month). Project construction will require up to three construction seasons, which typically occur between June to October.

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

The Build Alternative will incorporate Caltrans' design standards and criteria that address concerns associated with structural elements, seismicity, hydraulics, maintenance, accessibility, operations, traffic, bicycles, and pedestrians, among others.

1.4.2 No-Build (No-Action) Alternative

The No-Build (No-Action) Alternative will leave the existing Santa Maria River Bridge in place as it is. Under the No-Build (No-Action) Alternative, no changes will be made to any part of the bridge, which is expected to continue to deteriorate. This alternative will not address the alkali-silica reactions, or the known scour issues identified on the existing bridge structure. These issues will continue to negatively affect the structural integrity of the bridge, which could cause the State Route 1 corridor at this location to fail in function or reliability.

Under the No-Build (No-Action) Alternative, none of the work that has been proposed as part of the project will be conducted. The No-Build (No-Action) Alternative will not improve multimodal access to the bridge, upgrade existing bridge rails, install sidewalks, change curbs and gutters, or change existing utilities.

The No-Build (No-Action) Alternative will not cause project-related impacts because no actions will be conducted.

1.5 Identification of a Preferred Alternative

A Build Alternative and No-Build (No-Action) Alternative were the only alternatives considered for the Initial Study with Proposed Mitigated Negative Declaration. After public circulation of the Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment, the two alternatives were further evaluated. Caltrans identified the Build Alternative as the preferred alternative after consideration of the project's purpose and need, funding, schedule, construction methods and potential to impact environmental resources.

The preferred alternative meets the purpose and need of the project and will address the structural issues identified on the existing Santa Maria River Bridge by replacing the existing bridge with a new bridge structure. The preferred alternative will remove all traces of alkali-silica reactions present in the existing bridge structure and fix the issues identified on the existing bridge structure. The preferred alternative will also improve multimodal connectivity with the addition of the pedestrian path and wider shoulder widths on the new bridge.

The preferred alternative will result in permanent and temporary impacts to the environment. Permanent impacts will be caused by the construction of the new bridge on a new alignment and acquiring additional right-of-way to accommodate the new bridge alignment. However, the project will mitigate for permanent and temporary impacts. In addition, the new bridge structure will reduce the number of human-made elements in the river, which will permanently benefit the Santa Maria River environment. Temporary impacts will be caused as a result of construction-related activities, such as vegetation removal, temporary construction access, staging and storage sites. Construction activities will result in temporary impacts to vegetation, landscape, and receptors in the project area. However, the project will limit and control temporary impacts to minimize project-related disturbances. Though the preferred alternative will affect existing environmental resources in the project area, the project's environmental analysis indicated that these effects will not be substantial and the project has the potential to improve the existing conditions in the project area. Chapter 2 of this document provides information regarding the project's potential environmental impacts.

Caltrans has determined that the No-Build (No-Action) Alternative will not satisfy the project's purpose or need of the project because it will not address the structural issues identified on the existing Santa Maria River Bridge. The No-Build (No-Action) Alternative will not address the alkali-silica reactivity in the existing bridge and the scouring, and it will not ensure that the State Route 1 corridor at this location continues to be functional and reliable. The No-Build (No-Action) Alternative will also not improve the existing multimodal access on the bridge.

Under the No-Build (No-Action) Alternative, there will be no permanent or temporary impacts because no work or disturbance will occur. The No-Build (No-Action) Alternative will not change the existing conditions in the project area.

1.6 Alternatives Considered but Eliminated from Further Discussion Prior to the “Draft” Initial Study/Environmental Assessment

During the early stages of project development, the project development team studied several potential alternatives 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 build alternative. Alternatives 1 and 3 were eliminated early in the project development process, before preparation of the draft environmental document. See below for a description of Alternatives 1 and 3 and the reason they were eliminated from further consideration.

1.6.1 Alternative 1

Alternative 1 would have rehabilitated the existing Santa Maria River Bridge. To rehabilitate the bridge, the project would replace the existing girders and bridge rails and change the pier walls to accommodate a new superstructure. Construction project would have widened the bridge deck, extended the pier walls, and installed new bridge spans. This alternative also would have upgraded guardrails and bridge rails and installed a pathway. The new bridge would shift about 15 feet eastward. The new bridge would have been built in stages, and one-way traffic control would have been required to allow for traffic to pass through the project site.

Though this alternative addressed the existing issues on the superstructure, it did not entirely address the presence of alkali-silica reactivity in the concrete piers or the critical scour issue. This alternative was found not to be a prudent solution for addressing the issues affecting the bridge. Also, the one-way traffic control required during bridge construction could have adversely impacted traffic in the area. Because of the amount of expected daily traffic on State Route 1 at the project location, implementing one-way traffic control would create substantial traffic backup and other traffic issues for travelers. Because there are no feasible detours for travelers to bypass bridge construction, it was expected that backed-up traffic and other traffic issues could have potentially impacted local traffic in and around the City of Guadalupe. This could also 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 would not meet the purpose or need of the project. This alternative would not have resolved the alkali-silica issues identified in the existing bridge structure. Additionally, Alternative 1 had a high potential to cause

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 would have replaced the existing Santa Maria River Bridge on the same alignment. This alternative would have removed the existing bridge structure and replaced it with a new bridge structure with a wider deck, longer spans, and new pier structures. The number of pier structures in the river would have been reduced from 23 to 12. The new bridge also included new guardrails, bridge rails, and a pedestrian pathway. The new bridge would shift about 15 feet eastward. Construction of the bridge would have been conducted in stages, and one-way traffic control would have been required to allow traffic to pass through the project site.

Though this alternative addressed all of the structural issues and restored the structural integrity of the bridge, there was concern with the construction method. Reconstructing the bridge on the same alignment would have required demolition and construction activities to occur at the same location simultaneously, resulting in increased construction time. This alternative also required strict one-way traffic control to keep the traveling public safe from construction activities. One-way traffic control would have required installing temporary signals north and south of the bridge.

Because of the amount of expected daily traffic on State Route 1 at the project location, using one-way traffic control would have caused potentially adverse impacts to traffic and travelers. Implementing one-way traffic control could have also resulted in substantial traffic backup and disturbance of surrounding traffic.

Because there are no feasible detours for travelers to bypass bridge construction, backed-up traffic and other traffic issues could have potentially impacted traffic in the City of Guadalupe 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 and address the alkali-silica issues identified in the existing bridge structure. However, Alternative 3 had a high potential to cause 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 the project before 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 of 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. A Biological Opinion and a Programmatic Biological Opinion for federally protected species and critical habitat were obtained for the project on February 20, 2020 (see Appendix G).
- National Marine Fisheries Service—Section 7 consultation for threatened and endangered species review. A Letter of Concurrence for the Southern California steelhead species and critical habitat was obtained for the project on November 14, 2019 (see Appendix G).
- Regional Water Quality Control Board—Section 401 Certification for impacts to waters of the U.S. will be obtained prior to project construction.
- California Department of Fish and Wildlife—Section 1602 Streambed Alteration Agreement for impacts to streams that are under the California Department of Fish and Wildlife’s jurisdiction will be obtained prior to project construction.
- California Transportation Commission—Project Funding Approval will be made after the Final Project Report is approved.

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

Topics Considered but Determined Not to Be Relevant

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:** Replacing the bridge is not expected to change or affect existing or future land use in the area, and will be consistent with existing state, regional, and local plans and programs.
- **Relocations and Real Property Acquisition:** The project will require partial property acquisition from farmlands (that are expected to have a Williamson Act contract) next to a highway to accommodate roadway realignment, as detailed in Section 2.1.1, Farmland. No relocations are required for the project.
- **Coastal Zone:** Based on coastal zone maps from the California Coastal Commission, the project is outside of the coastal zone. No impacts to coastal resources will occur.
- **Wild and Scenic Rivers:** There are no wild and scenic rivers in or next to the study area, according to the Wild and Scenic Rivers System list, provided by the National Park Service. Therefore, no impacts to wild and scenic rivers will occur.
- **Parks, Recreational Facilities, and Section 4(f) Resources:** LeRoy Park is about 300 feet west of the project area. The project may cause temporary indirect impacts to LeRoy Park as a result of construction activities. These impacts are further discussed in Section 2.4, Construction Impacts. There are no historic sites, parks and recreational resources, wildlife or waterfowl refuges, which meet the definition of a Section 4(f) resource within the project vicinity. Therefore, the project is not subject to Section 4(f) provisions of the Department of Transportation Act of 1966.
- **Timberland:** The project site is not within, next to, or in the vicinity of any timberlands, and it will not impede access to existing timberlands. Therefore, there will be no effect on timberlands.
- **Growth:** The project will replace an existing bridge on an existing highway corridor and will not create new access to previously non-accessible areas. The project will not add new travel lanes on the bridge. The project is not expected to change existing or future predicted traffic patterns. The project will not change existing or future planned development in the vicinity or in the region. A potential future project in the region is the extension of the Santa Maria River Levee Trail

from the City of Santa Maria to State Route 1. The extension of the Santa Maria River Levee Trail will involve coordination between Santa Barbara County Association of Governments, the City of Santa Maria, the City of Guadalupe and Caltrans. At this time, there are no project-related documents available to analyze effects the trail extension might have on the Santa Maria River Bridge Replacement Project. Once project-related documents for the trail extension are made available, further analysis on how the trail can affect the Santa Maria River Bridge can be conducted. It is expected that the future trail continuation will try to connect to State Route 1, which is designated as a Pacific Coast Bike Route, potentially near the new Santa Maria River Bridge. The Santa Maria River Bridge Replacement Project is not expected to affect the development of the Santa Maria River Levee Trail extension, and the new bridge will be designed using available information to avoid conflicts with the future Santa Maria River Levee Trail extension.

- **Community Impacts:** The project will install a separated pathway on the new bridge structure to improve pedestrian access across the bridge. The new bridge will also include standard travel lanes and shoulders, which will provide improved conditions for cyclists on the bridge. The new bridge is expected to improve public access along this segment of State Route 1. Also, the project will fill gaps in existing sidewalks leading up to the new bridge. The project is not expected to result in long-term or permanent negatively affects to community growth, development, or quality of living in the area. Project construction may temporarily impact community resources; these temporary impacts are further discussed in Section 2.4, Construction Impacts.
- **Environmental Justice:** The project sits partially within the City of Guadalupe in Santa Barbara County. Based on 2018 Census estimates for the City of Guadalupe, the annual median household income is approximately \$45,361, with a population approximately 90% Hispanic. The project is not expected to result in disproportionate impacts to minority and/or low-income residents in the project area because the majority of project impacts will occur on the existing highway prism and within the river channel. The project will result in temporary construction impacts as discussed in Section 2.4, Construction Impacts. No minority or low-income populations will be adversely affected by the project. Therefore, the project is not subject to the provisions of Executive Order 12898.
- **Paleontology:** The project will not encounter paleontological resources because all work will take place on a bridge, on a roadway, and in 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 that are typically found within the existing bridge or roadway. The project will 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 cause adverse effects as a

result of encountering, disturbing, or transporting hazardous materials. (Hazardous Waste Memo, March 9, 2018)

- **Air Quality:** The project will replace an existing bridge. The new bridge will not alter current vehicle travel patterns or current air quality trends in the region. The project will not alter the existing highway capacity. The project is exempt under 40 Code of Federal Regulations 93.126 as “Reconstruction Bridges (no additional travel lines).” The project is in an attainment or unclassified area of all current National Ambient Air Quality Standards. Therefore, transportation conformity requirements do not apply. However, project construction could cause relatively minor, temporary impacts to air quality in the project vicinity, as further discussed in Section 2.4, Construction Impacts. (Air Quality and Greenhouse Gas Memo, April 10, 2018)
- **Energy:** The project will not increase the existing capacity of the highway or the bridge and is unlikely to change existing energy consumption during operation. The project will include a separated multimodal path that could be used by pedestrians and cyclists. The multimodal path will also encourage alternative modes of transportation and potentially reduce fuel usage. The project will not cause a permanent new demand for energy consumption. Energy use during project construction will be temporary; methods and procedures that will help conserve energy, such as using recycled materials or shutting off idling equipment, will be implemented.
- **Hydrology:** Though 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, which is upstream from the project location. The Santa Maria 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 expected to change the overall hydraulic characteristics of the Santa Maria River or make up a significant floodplain encroachment as defined in Section 650.105q of the Code of Federal Regulations 23. A Federal Emergency Management Agency 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 will incorporate precautions to prevent fire incidents during construction as part of the code of safe practices in accordance with the 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 non-agricultural 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 will convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act contract 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.

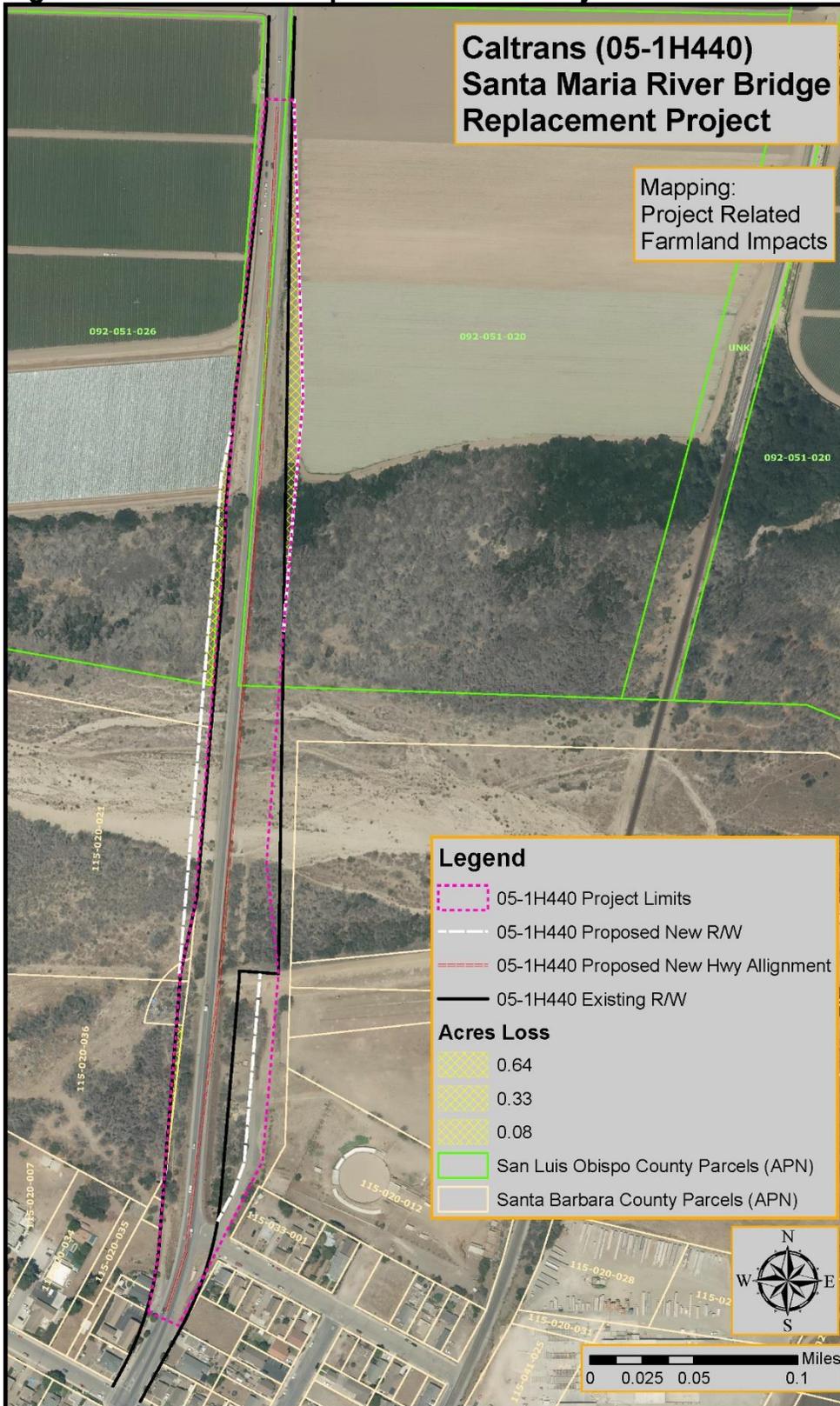
The project is in a rural setting in northern Santa Barbara County and southern San Luis Obispo County. A review of public land use data for San Luis Obispo County and Santa Barbara County identified agricultural land uses next to the project site.

In Santa Barbara County, land uses that surround 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 farmland property in Santa Barbara County.

In San Luis Obispo County, the land use that surrounds 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 are within the Oso Flaco Agricultural Preserve and are expected to be under a Williamson Act contract.

Figure 2-1 shows the farmlands that are within the project area.

Figure 2-1 Farmland Acquisition for the Project



Environmental Consequences

The project or project-related construction activities are not expected 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 project will require shifting the existing State Route 1 eastward and expanding the existing state right-of-way in the project area. The project will also require partial property acquisition of three nearby properties that are currently identified for farmland use.

The following information summarizes the expected partial acquisition that will be required for each farmland property as part of the project:

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

Santa Barbara County

Within Santa Barbara County, it is expected that the project will require the partial acquisition of about 0.08 acre from Assessor's Parcel Number 115-020-036, which is about 15.0 acres in size. Acquiring the required 0.08 acre for the project will result in the loss of about 0.53 percent of farmable land from the property. It is expected that the 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 a Williamson Act contract.

San Luis Obispo County

The project will require partial acquisition of property from two nearby 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 expected that the project will require partial acquisition of about 0.64 acre out of about 282 acres from Assessor's Parcel Number 092-051-020. The required partial acquisition will result in the loss of about 0.23 percent of farmable land from the farmland property.

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

The project is expected to acquire new property totaling about 0.97 acre out of about 590 acres shared between two farmland properties. The project will result in the loss of about 0.34 percent of farmable land in San Luis Obispo County. It is expected that the project's partial property 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.

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

Williamson Act Land

The project will acquire portions of property that are expected to be under a Williamson Act contract. The following criteria must be met to allow 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 Build Alternative and the alternatives considered but eliminated from further discussion had similar project limits, structure designs, estimated project costs, potential impacts, and project locations.

The existing bridge structure is nearly surrounded by farmland properties and is next to an agricultural preserve. There were few options to place the new bridge structure in order for it to remain connected with State 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's planned State Route 1 alignment will be designed to best fit within the existing Caltrans right-of-way. The project's planned State Route 1 alignment will follow a previous alignment of State Route 1 that had been removed when the existing bridge was built. The project was based on a direct route with logical beginning and ending points to fulfill the project's purpose and need. Therefore, no other land within or outside the preserve offers a feasible place for the project's planned State Route 1 shift that will allow it to connect with the remaining State Route 1 system.

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

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

Avoidance, Minimization, and/or Mitigation Measures

Adequate compensation will be provided for property acquisition, including relocation assistance for residents and businesses as required by law. Caltrans right-of-way agents will 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 affecting properties under a 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 will be implemented to address potential impacts on farmland resources:

- The project will limit the amount of right-of-way that is acquired from nearby farmland properties; it will only acquire right-of-way that is necessary for project completion.

- To the extent possible, construction-related storage, staging, and access will avoid properties that are currently involved in agricultural activities or properties that are identified as prime farmland.
- Infill materials that will be used in the project will not be obtained from borrow sites that contain prime farmland.
- Areas next to farmland properties that are disturbed during construction will be re-stabilized using native vegetation and soils that are clear of invasive plant species at the end of construction. Soil amendments, if used, must comply with the requirements of the California Food and Agricultural Code. Soil amendments must not contain paint, petroleum products, pesticides, or any other chemical residues that are harmful to animal life or plant growth.
- The construction contract will include provisions to protect against the spread of invasive species.
- When selecting sites for other project-related mitigations (e.g., wetland restoration, replanting, etc.), the project will avoid prime farmland to the extent possible.
- Construction activities will be coordinated with local farmland operators to ensure that access to nearby farmland properties is maintained during project construction.
- 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 the 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 and the Guadalupe Police Department are 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 will relocate utilities for the realignment of the existing highway. The aboveground utility lines east of the existing bridge will be relocated before construction. Underground utility lines east of the existing State Route 1 may need to be relocated based on their location relative to the planned new roadway alignment. Utility location verification will be conducted before construction. It is expected that utilities in conflict with the new roadway alignment will need to be relocated within the project limits.

Emergency Services

Construction staging activities could cause 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 to respond to emergencies. Access through the project site and the bridge structure will be maintained during construction, with two lanes available for traffic use. The need for any temporary lane closures during construction will be communicated to the appropriate emergency service agency. Also, a Traffic Management Plan will be implemented to inform, guide, and assist emergency responders to ensure the continuation of adequate service and minimize potential delays in response times.

Avoidance, Minimization, and/or Mitigation Measures

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

Utilities

- Temporarily relocated utilities will remain in operation during project construction.
- Before starting utility relocation activities, coordination with utility users will be required to inform them about the date and timing of potential service disruptions.
- 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

- The Caltrans resident engineer that is assigned to the project will regularly coordinate with local emergency responders on project activities that could potentially affect emergency response times.
- A Transportation Management Plan will be implemented and will allow emergency service vehicles to access the project site during construction to minimize response delays.

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 that support 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, which is 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 railway line is about 1,000 feet east of the project limits; 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 within residential areas.

The City of Guadalupe provides the Guadalupe Flyer transit bus within the city limits. The service also serves 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 cause delays to vehicles, cyclists, and pedestrians during construction. However, traffic control will be used to ensure that State Route 1 and the Santa Maria River Bridge will remain open to vehicles, cyclists, and pedestrians to minimize potential delays during construction. The project is not anticipated to alter existing traffic patterns or volumes once completed.

The new bridge will include 12-foot travel lanes with 8-foot shoulders, concrete barriers with bicycle rails, and an 8-foot pathway for pedestrians and cyclists. The new 8-foot shoulders will provide access for cyclists and emergency service providers. The new 8-foot pathway will provide access for pedestrians and cyclists that is separated from traffic. The new bridge structure is expected to provide improved access for vehicles, cyclists, and pedestrians traveling on State Route 1 and crossing the Santa Maria River Bridge.

Avoidance, Minimization, and/or Mitigation Measures

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

- 1) Traffic control will be used to ensure that the public can continue to access State Route 1 during project construction.
- 2) The project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions to address potential traffic issues that will result 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 that all Americans are safe, healthful, and productive, and have access to 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 Highways 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 County and Santa Barbara County is a north-south 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.

Land use within the project limits 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 (Guadalupe Street), its residential neighborhoods that extend to the east and west, and its 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 rural visual character. Agriculture, open space and recreation, homes, and varied industries make up much of the land use. Several planned residential subdivisions have been built north and south of the project site and are continuing to be developed. Though the region is becoming more suburbanized, the area maintains much of its rural character due to the abundant cropland, open space, riparian areas, and dunes.

The landscape that surrounds 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 that follows the Santa Maria River to the Pacific Ocean. Much of the region is made of sand dune complexes along the beach and transitions into 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 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, a 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 that are parallel to the bridge take away 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 City 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, project construction will temporarily affect views. When the new bridge is built, the riverbed and distant hills will remain visible and the scenic vista will remain intact. The proposed taller bridge rail and pathway railing will minimally affect views of the scenic vista in the area.

The new bridge deck profile will be slightly raised to allow for a higher vantage point for views of the surrounding landscape. However, this higher vantage point will cause overhead utility wires to be more directly in view and interfere 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 will be no damages to scenic resources along the highway.

Proposed project elements above the bridge deck, such as barriers and railings, will be visible from the highway. By themselves, these types of elements are common and will 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—will be a new, unique visual element along the highway corridor. The new barrier and railing will be taller than the existing barrier. When viewed with the wider road shoulders and pathway, the new barrier will increase the visual scale and appearance of the structure. The new configuration and additional hardware will create a more utilitarian appearance and will add a degree of visual clutter to the

setting. As a result, these visual changes will cause a low reduction of rural character and visual quality to the immediate project area.

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

The project will not affect daytime or nighttime views because it will not introduce new lighting or sources of glare.

Avoidance, Minimization, and/or Mitigation Measures

The project will implement the following avoidance and minimization measures to ensure that it is consistent with the aesthetic and visual resource protection goals along State Route 1:

- 1) The type and appearance of all new bridge rails, bicycle railing, and pedestrian railing will be determined in consultation with the City of Guadalupe. Open-type bridge railing and pathway railing will be considered as well.
- 2) All existing overhead utilities that are next to the new bridge will either be 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 something similar to discourage graffiti.
- 4) Preserve as much existing vegetation as possible. Prescriptive clearing, grubbing, and grading techniques that will save the most existing vegetation should be used.
- 5) Revegetate all areas disturbed by the project with appropriate native plant species.
- 6) Following construction, re-grade and recontour 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 following.

The National Historic Preservation Act 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. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council on Historic Preservation’s regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration’s responsibilities under the Programmatic Agreement have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 U.S. Code 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 Section 5024.1 established the California Register of Historical Resources and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the California Register of Historical Resources and, therefore, a historical resource. Historical resources are defined in California Public Resources Code Section 5020.1(j). In 2014, Assembly Bill 52 added the term “tribal cultural resources” to CEQA, and Assembly Bill 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 California Public Resources Code Section 21074(a), a tribal cultural resource is a California Register of Historical Resources 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 California Public Resources Code Section 21083.2.

California Public Resources Code Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the National Register of Historic Places listing criteria. It further requires Caltrans to inventory state-owned structures in its rights-of-way.

Affected Environment

The 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 on December 19, 2018, as part of Section 106 consultation and formal notification under Assembly Bill 52. No formal consultation has been requested by recipients.

The project is in an area that has been highly disturbed due to past development projects and ongoing agricultural activities. A review of cultural resource documentation in state files 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 and confirmed the substantial level of disturbance, and suggested 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, according to the California Environmental Quality Act. There are no other historic built environment resources within the project limits that the project could potentially affect.

Environmental Consequences

The Cultural Resource Review determined no historic properties affected for Section 106.

The 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 project because the project is not expected to affect cultural resources.

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

- 1) If cultural materials are discovered during construction, all earth-moving activities within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- 2) If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities will stop in any area or nearby area suspected to overlie remains, and the county coroner should be contacted. If the coroner thinks the remains are of Native American origin, he or she will notify the Native American Heritage Commission,

who, per California Public Resources Code Section 5097.98, will then notify the Most Likely Descendent. At this time, the person who discovered the remains will contact the 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 California Public Resources Code Section 5097.98 must be followed as applicable.

2.2 Physical Environment

2.2.1 Water Quality and Stormwater 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 U.S. 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 discharges of stormwater 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 U.S. 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 U.S. Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater 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 U.S. 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 effects. 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 Part 230), and whether the permit approval is in the public's best 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 U.S.) only if there is no practicable alternative that will 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 will have lesser effects on waters of the U.S. 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 U.S. 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 Water Quality Control 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 U.S.; groundwater and surface water are not considered waters of the U.S. 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 nonpoint 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, nonpoint, 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 stormwater 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 stormwater, that is designed or used for collecting or conveying stormwater.” 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 of 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 Number 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order Number 2014-0006-EXEC (effective January 17, 2014), Order

Number 2014-0077-DWQ (effective May 20, 2014), and Order Number 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 stormwater and non-stormwater discharges.
- Caltrans' stormwater discharges must meet water quality standards through the 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 Stormwater Management Plan to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Stormwater Management Plan assigns responsibilities within Caltrans for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Stormwater Management Plan describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices. The project will be programmed to follow the guidelines and procedures outlined in the latest Statewide Stormwater Management Plan to address stormwater runoff.

Construction General Permit

Construction General Permit, Order Number 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order Number 2010-0014-DWQ (effective February 14, 2011), and Order Number 2012-0006-DWQ (effective on July 17, 2012). The permit regulates stormwater 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 stormwater 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 Stormwater 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 will require compulsory stormwater runoff, potential hydrogen 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 Stormwater Pollution Prevention Plan. In accordance with the Caltrans Statewide Stormwater 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 U.S. 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 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 on the Cuyama River. During much of the year, the Santa Maria River is dry, and the presence of water is the result of either dam releases or heavy rains. Engineered levees line most of the southern banks of the Santa Maria River.

The project is 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 2014/2016 303(d) list for Total Maximum Daily Load Priority Schedule of impaired waters.

Environmental Consequences

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

During project construction, various project activities will occur above, next to, and within the river. Construction-related activities are expected to cause temporary and intermittent impacts to water quality because foreign materials may enter the river. The project is not expected to cause long-term impacts to water quality because the Santa Maria River is dry for most of the year. If water is present in the river during bridge construction, no work will be allowed to occur when water is flowing.

The project will result in 10.5 acres of disturbed soil. The acres will 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. Also, 0.4 acre of new net impervious surface area will be added because of the wider deck on the new bridge structure. The project is not expected to cause groundwater impacts.

The project will incorporate a variety of temporary Caltrans standard engineering practices during construction to protect water quality. Such practices will include but will not be limited to: litter prevention and collection, spill control and prevention, soil stabilization, runoff and sediment control, erosion control, and job site management. Permanent features may be incorporated into the project after construction to provide long-term protection to water quality, such as vegetated swales, sand filters, and runoff basins.

Avoidance, Minimization, and/or Mitigation Measures

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

The following measures will be implemented to minimize impacts on water quality and stormwater runoff for this project:

- 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, which is typically from June to October, and only if there is no water flow. When work is near streams,

erosion and sediment controls will be implemented to keep sediment out of the stream channel.

- 3) A Stormwater Pollution Prevention Plan will be prepared before ground disturbance activities and will be implemented during construction as required per Caltrans' standard practices.
- 4) The project will isolate equipment staging and spoil/material storage areas away from the river channel using appropriate stormwater control barriers.
- 5) When in-channel work is required, the project will stabilize access routes to the river to reduce tracking 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 Practices will be implemented:
 - a) Install appropriate fencing to control sediment. Fencing should be installed only where sediment-laden water can pond to allow the sediment to settle out.
 - b) Install fiber rolls along the slope contour above the high-water level to intercept runoff, reduce flow velocity, release the runoff as sheet flow, and remove sediment from the runoff. In a stream environment, fiber rolls should be used 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 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 about 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 seen 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. Though no surface water was seen during the site visit on October 26, 2016, 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.

Though the project area will experience strong seismic ground shaking in the event of a large earthquake, the project will 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 expected 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 an 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 the project document is approved and before project construction starts.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measure 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 due to an earthquake, liquefaction, erosion, or other geological hazards.

2.2.3 Noise

Regulatory Setting

The California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) of 1969 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 CEQA and NEPA.

California Environmental Quality Act

CEQA requires a strict 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 noise analysis; 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 will 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.

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	67 (Exterior)	Residential.
C	67 (Exterior)	Active sport areas, amphitheatres, 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.

Figure 2-2 Noise Levels of Common Activities

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	
Quiet Urban Daytime	50	Large Business Office
		Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		Library
Quiet Rural Nighttime	30	Bedroom at Night, Concert Hall (Background)
	20	Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

According to Caltrans' *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 will likely be incorporated into the project.

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. 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). 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.

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 per 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 cause a traffic noise impact.

The Noise Study Report measured noise levels as A-weighted decibels, 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 year of the project is identified as 2037. Traffic noise was evaluated under existing conditions, No-Build (No-Action) Alternative conditions (future conditions with no project), and Build Alternative conditions (future conditions with the project).

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

Land Uses and Terrain

Land uses in the vicinity consist mostly of agricultural, single-family homes, multi-family homes, and commercial retail. The lands that surround the existing bridge are mostly agricultural and fallow. The area south of the existing bridge, which encompasses the City of Guadalupe, is mostly residential. The terrain is mostly flat, with little change in elevation 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 Caltrans' *Traffic Noise Analysis Protocol*, noise abatement is considered only where frequent human use occurs and where a lowered noise level will be beneficial. Though all land uses are evaluated in this analysis, the focus is on locations of frequent human use that will benefit from a lowered noise level. This noise impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards and common use areas in multi-family homes.

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 near 11th Street, which is shown in Figure 2-3 as R-4 and R-5. Short-term noise monitoring was also conducted for three homes right next 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 A-weighted decibels.

Field-gathered data (e.g., short-term noise measurements, 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 would need to be considered for the project.

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



Environmental Consequences

The project is considered a Type 1 project, which involves building a highway at a new location, physically changing an existing highway, adding 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 summarizes the existing noise levels for five locations in Area A:

- Location R-1: 60 A-weighted decibels
- Location R-2: 65 A-weighted decibels
- Location R-3: 68 A-weighted decibels
- Location R-4: 67 A-weighted decibels
- Location R-5: 68 A-weighted decibels

Modeled traffic noise levels for locations R-1 and R-2 are below the noise abatement criterion of 67 A-weighted decibels.

Modeled traffic noise levels for locations R-3, R-4, and R-5 are considered to exceed the noise abatement criterion of 67 A-weighted decibels.

Traffic Noise Model - Future Noise Levels

No-Build (No-Action) Alternative Conditions

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

- Location R-1: 61 A-weighted decibels
- Location R-2: 65 A-weighted decibels
- Location R-3: 68 A-weighted decibels
- Location R-4: 68 A-weighted decibels
- Location R-5: 69 A-weighted decibels

The predicted future noise level is the result of expected increases in future traffic volumes in the area without the planned highway realignment. Under the No-Build (No-Action) Alternative, the increase in noise levels of future conditions is predicted to be 0 to 1 A-weighted decibel higher than existing conditions.

Because the predicted noise levels at locations R-1 and R-2 are below the noise abatement criteria, noise abatement measures are not required.

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

Noise abatement measures are not required under the No-Build (No-Action) Alternative conditions because no actions or changes will be made.

Build Alternative Conditions

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

- Location R-1: 65 A-weighted decibels
- Location R-2: 67 A-weighted decibels
- Location R-3: 67 A-weighted decibels
- Location R-4: 68 A-weighted decibels
- Location R-5: 68 A-weighted decibels

The predicted future noise level is the result of expected increases in traffic volumes in the area with the planned highway realignment.

The increase in noise levels of future conditions under the Build Alternative is predicted to be 0 to 4 A-weighted decibels higher than existing conditions.

Though the modeled future noise level is predicted to increase by 4 A-weighted decibels at location R-1, it will remain below the noise abatement criterion of 67 A-weighted decibels. Therefore, noise abatement measures will not be required.

The modeled future noise level at location R-2 is predicted to be 67 A-weighted decibels, which will approach the noise abatement criteria. Because of this, traffic noise impacts could occur, and noise abatement measures must be considered.

Modeled future noise levels at locations R-3, R-4, and R-5 are expected to remain the same or slightly decrease from the predicted future No-Build (No-Action) Alternative condition, but will still exceed the noise abatement criterion of 67 A-weighted decibels.

Though modeled future noise levels at locations R-3, R-4, and R-5 are predicted to approach or exceed the noise abatement criterion under the Build Alternative condition, predicted increases in future noise levels will not be attributed to the planned highway realignment. This is because under the No-Build (No-Action) Alternative condition, modeled future noise levels at these locations are also predicted to approach or exceed the noise abatement criterion. Therefore, the planned highway realignment is not expected to induce noise impacts for locations R-3, R-4, and R-5.

Under the Build Alternative, there is either no net change or a slight decrease in the predicted change in noise levels between the existing and future conditions. Future noise levels in Area A are predicted to be attributable to future increases in traffic noise that will occur regardless of whether the Build Alternative was implemented.

Noise Abatement

Noise abatement is considered where project-related noise impacts are predicted in areas of frequent human use. 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 the 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.
- Changing horizontal and vertical alignments.
- Acquire real property or interests (mainly unimproved property) to serve as a buffer zone to pre-empt development that will 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 Build Alternative condition is predicted to approach or exceed the noise abatement criterion for locations R-2, R-3, R-4, and R-5.

Noise abatement measures were evaluated for location R-2 because the predicted noise levels at this location are expected to approach or exceed the noise abatement criterion of 67 A-weighted decibels. A 16-foot-tall soundwall was the abatement measure that was evaluated for the single residential receptor at location R-2. However, it was determined that this abatement measure was not feasible due to the following restrictions:

- The receptor is on the corner of a residential lot at the intersection of State Route 1 and 12th Street.
- Due to the cross street and driveway entrance to the home, the soundwall could be installed only along the edge of State Route 1 and cannot be wrapped around the corner.
- The soundwall will 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 these restrictions, the soundwall will not be effective at reducing traffic noise and will not provide the minimum reduction of 5 A-weighted decibels that is required to be considered acoustically feasible.

Noise abatement measures were considered for locations R-3, R-4, and R-5 because the predicted noise levels at these locations are expected to approach or exceed the noise abatement criterion of 67 A-weighted decibels. However, abatement measures will not be feasible or effective at these locations for the following reasons:

- These receptors are on residential lots that contain pedestrian sidewalks and residential driveways that are right next to the highway.
- The residential driveways will prevent the construction of a continuous noise barrier along the edge of the highway. Having gaps in the noise barrier is not expected to provide the minimum reduction of 5 A-weighted decibels that is required to be considered feasible.
- The driveways and sidewalks will also prevent changing the horizontal or vertical alignment of the highway, not allowing for an effective noise abatement.
- Acquiring buffer zones is not feasible because the nearby properties are already developed and contain residents.

Avoidance, Minimization, and/or Noise Abatement Measures

It was predicted that location R-2 will experience an increase in noise levels as a result of the project. Though 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 locations R-3, R-4, and R-5 will experience an increase in noise levels with or without the project. Though abatement measures were considered, there were no feasible measures that could provide an effective noise abatement for these locations.

Measures to address temporary noise impacts caused by 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

The 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 made up of State Route 1, the surrounding state right-of-way, and private lands in San Luis Obispo County and Santa Barbara County. The Santa Maria River is largely undeveloped and makes up 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 Biological Study Area outside of the Santa Maria River can be characterized as developed or agricultural land, or an area that is regularly disturbed by human activities such as farming, ranching, or urban development. Plant communities in the area are made up of mostly non-native species, including non-native grasses. Ruderal habitat, made up of common weedy species that grow on highly disturbed soils, occurs in the right-of-way along State Route 1 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 hordeaceus*), pineapple weed (*Matricaria discoidea*), and Russian thistle (*Salsola tragus*).

Within the Santa Maria River channel itself, the vegetation consists of 40-50 percent of species that are 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 salicifolia*) cover and a sparse herbaceous layer. This habitat is typical of floodplains and stream channels, and 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*), 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 vulgare*) 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 in the river channel. Small-to-medium-sized mammals are prevalent in the riverbed because it provides continuous habitat and sandy friable soils for them to burrow, forage, and disperse. Amphibians in the area rely on the 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, which 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 on a local and regional scale.

Environmental Consequences

About 1.4 acres of permanent impacts will occur in unpaved ruderal/disturbed areas where the new State Route 1 alignment will be shifted onto.

Permanent impacts will also occur at each of the new bridge pier locations. However, the new bridge structure will require only 12 pier structures, and the project will remove the existing 23 pier walls; this will result in a net gain of streambed habitat. Also, due to the highway realignment, there are areas of the existing road that will no longer be a part of the new highway. These areas will be restored and landscaped within state right-of-way, totaling about 0.5 acre. The restored area and the net gain of streambed habitat are subtracted from the total new areas of permanent impacts.

Temporary impacts include equipment staging areas, access roads, and work areas that are needed to build the new bridge and remove the existing bridge. These impacts will include tree and vegetation removal, grading, compaction by construction equipment, and foot traffic that will be required to build the new bridge. About 6.4 acres of temporary impacts will occur along the east and west sides of the

highway, the areas that surround the existing and new Santa Maria River Bridge, and access roads on the northeast and southwest sides of the bridge.

Habitat Connectivity

Habitat connectivity along the Santa Maria River within the Biological Study Area could be temporarily disrupted during construction activities. The new bridge structure will have longer spans and longer gaps between each individual pier structure, which means there will be larger gaps between permanent structures than what exists now. These design features will result in a more open area and provide improved habitat conditions for migrating species. During project construction, measures will 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 following measures will be implemented to reduce potentially significant impacts to less than significant impacts under CEQA for natural communities.

The following measures will be implemented to avoid and minimize the project's potential impacts on natural communities.

Also, measures described in Section 2.3.2, Wetlands and Other Waters, are expected to avoid and minimize potential impacts on natural communities caused by project activities.

- 1) Temporary environmentally sensitive area fencing and/or flagging will be installed on the perimeter of the project area to prevent potential impacts on natural communities outside of the project area.
- 2) At the end of project construction, all areas temporarily impacted by project activities will be revegetated with native seed mix, with erosion control seedings along the roadside and replacement tree plantings in the riparian zone.
- 3) All areas temporarily impacted by project activities will be returned to their 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 U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. 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 will be significantly degraded. The Section 404 permit program is run by the 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 effects. 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's best 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 U.S.) only if there is no practicable alternative that will 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 will have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The executive order for the Protection of Wetlands (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 other waters are regulated mainly by the State Water Resources Control Board, 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 Lake or 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 U.S. but may also include isolated waterbodies. The Porter-Cologne Act defines waters of the state of California as “surface water or groundwater, 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 U.S. This is most frequently required in tandem with a Section 404 permit request.

Affected Environment

The 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 were 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 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 the U.S. Army Corps of Engineers jurisdiction, 12.57 acres of the 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 access to the Santa Maria River Bridge during project construction. The project will require temporary construction access in riparian areas, unvegetated streambanks, and streambeds. Temporary impacts will include tree and vegetation removal, clearing and grubbing, ground compaction, and disturbance.

The existing Santa Maria River Bridge is supported by 23 pier walls that measure 15.67 feet long and 1.67 feet wide. Each pier wall footprint measures about 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 will be supported by 12 sets of three piers that are each 4 feet in diameter, which is equivalent to 453 square feet of permanent pier structure in the Biological Study Area. This is a reduction of about 148.88 square feet of permanent impacts, which will cause a net gain of streambed habitat.

The project footprint will avoid all wetlands, and impacts will be restricted to the riparian area, streambed, and streambank of the Santa Maria River that is right next to the highway bridge.

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

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented to reduce potentially significant impacts to less than significant impacts under CEQA for riparian habitats.

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

- 1) Before any ground-disturbing activities, temporary environmentally sensitive area fencing and/or flagging will be installed around wetland resources within the project limits to ensure that these areas are not impacted by project activities. The location of environmentally sensitive area fencing and/or flagging will be included on design plans and delineated in the field before construction starts.
- 2) During construction, all project-related hazardous material spills within the project site will be cleaned up immediately. The contractor will keep spill prevention and cleanup materials readily accessible onsite at all times during construction.
- 3) During construction, cleaning and refueling 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, 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) Any trees removed will be replaced at a minimum of 1 to 1 ratio. Final replacement ratio may be higher, up to 3 to 1, based on permit conditions. Any trees removed will be replaced with native trees that are appropriate for the region and habitat. Additional tree replacement criteria may be adopted to meet project permit conditions.
- 6) Vegetated streambanks disturbed by project activities will be revegetated with a native seed mix consisting of regional plant community type. However, they will not be monitored for success because river flows could potentially disturb the streambanks as part of the natural geomorphic process that is 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

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

Caltrans biologists conducted botanical surveys on May 7, 2018, and June 27, 2018. The surveys were floristic in nature and were conducted when target species were flowering and identifiable. All surveys followed the appropriate protocols of U.S. Fish and Wildlife Service (2000) and California Department of Fish and Wildlife (2009).

Within the Biological Study Area, potential habitat for the following special-status plant species are absent and none of these special-status plant species were seen during appropriately timed surveys: California jewelflower (*Caulanthus californicus*), Gambel's watercress (*Rorippa gambelii*), Marsh sandwort (*Arenaria paludicola*), salt marsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*), spreading navarretia (*Navarettia fossalis*), San Bernardino aster (*Symphyotrichum defoliatum*), La Purisima manzanita (*Arctostaphylos purissima*), sand mesa manzanita (*Arctostaphylos rudis*), Santa Margarita manzanita (*Arctostaphylos pilosula*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), coastal goosefoot (*Chenopodium littoreum*), Gaviota tarplant (*Deinandra increscense*), Blochman's dudleyi (*Dudleya blochmaniae* ssp. *blochmaniae*), Blochman's leafy daisy (*Erigeron blochmaniae*), Kellogg's horkelia (*Horkelia cuneata* var. *sericea*), crisp monardella (*Monardella undulata* ssp. *crispa*), southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*), San Luis Obispo monardella (*Monardella undulata* ssp. *undulata*), short lobed broomrape (*Orobanche parishii* ssp. *brachyloba*), Hoover's bent grass (*Agrostis hooveri*), San Luis Obispo owl's-clover (*Castilleja densiflora* var. *obispoensis*), straight-awned spineflower (*Chorizanthe rectispina*), compact cobwebby thistle (*Cirsium occidentale* var. *compactum*), surf thistle (*Cirsium rhotophilum*), California sawgrass (*Cladium californicum*), Bolander's waterhemlock (*Cicuta maculate* var. *bolanderi*), Pismo Clarkia (*Clarkia speciose* ssp. *immaculata*), seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*), dune larkspur (*Delphinium parryi* ssp. *blochmaniae*), beach spectalepod (*Dithyrea maritima*), Lompoc yerba santa (*Eriodictyon capitatum*), beach layia (*Layia carnosa*), pale-yellow layia (*Layia heterotricha*), mesa horkelia (*Horkelia cuneata* var. *puberula*), San Luis Obispo county lupine (*Lupinus ludovicianus*), Nipomo mesa lupine (*Lupinus nipomensis*), coast woolly-heads (*Nemacaulis denudata* var. *denudate*) and aphanisma (*Aphanisma blitoides*). None of the special-status plant species listed above are anticipated to be found within the project site.

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*). However, no special-status plant species were seen 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 occurs in the Biological Study Area, no plants were found during appropriately timed field surveys.

No special-status plant species were seen, and none are expected to occur within the project area. Therefore, the project is not expected 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 project will not affect the following federally listed plant species: Gambel's watercress (*Rorippa gambelii*), marsh sandwort (*Arenaria paludicola*), salt marsh bird's beak (*Cordylanthus maritimus ssp. maritimus*), spreading navarretia (*Navarretia fossalis*), Gaviota tarplant (*Deinandra increscens*), Pismo clarkia (*Clarkia speciosa 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 project is not expected to impact any special-status plant species. No avoidance, minimization, or mitigation measures are required for special-status 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

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

The Biological Study Area includes potential habitat for the following special-status animal species: 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 (*Empidonax traillii extimus*), Least Bell's vireo (*Vireo bellii pusillus*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), Townsend's big-eared bat (*Corynorhinus townsendii*), American badger (*Taxidea taxus*), South-Central Coast California steelhead Distinct Population Segment (*Oncorhynchus mykiss*), and Southern California steelhead Distinct Population Segment (*Oncorhynchus mykiss*).

Although special-status animal species were not observed within the Biological Study Area during field surveys, there is the potential for animal species to occur in the Biological Study Area given the presence of potential habitat. The presence of potentially suitable habitat for animal species in the Biological Study Area led to the presumption that there is the potential for presence of animal species within the within the project site. The following discussions are limited to special-status species that could potentially be present in the Biological Study Area and/or have the potential to be affected by the project. Animal species that do not have the potential to be present within the Biological Study Area and/or not have the potential to be affected by the project are not discussed further.

Numerous species of nesting birds that do not appear in the California Natural Diversity Database or U.S. Fish and Wildlife Service species list were included for consideration based on the presence of suitable habitat. Such species have the potential to occur in the Biological Study Area and 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 that are known to roost in bridges that are protected by the California Environmental Quality Act.

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 Distinct Population Segment, and Southern California steelhead Distinct Population Segment.

Bats

Multiple bat species may use 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 evaluated as the only structure capable of providing habitat for roosting bats within the Biological Study Area. Evidence of night roosting was seen 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, showing that much of the bridge structure can support night roosting by bats. During wildlife surveys, no bats were seen roosting during 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 night roosting structure for bats using the Santa Maria River to 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 riverbed of the Santa Maria River, 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 for an American badger.

The Biological Study Area provides suitable foraging habitat for the American badger; it also provides habitat to support several small reptile, rodent, and insect communities. Due to the American badger's transitory nature, there is also the potential for the species to use the Santa Maria River as a movement corridor to cross 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 the project has similar potential impacts to both species.

Coast horned lizards can be found in areas with an exposed gravelly sandy substrate with scattered shrubs, clearings in riparian woodlands, dry uniform chaparral, and annual grasslands. Meanwhile, Northern California legless lizards are found in coastal dunes, valley-foothills, chaparral, and coastal scrub habitats.

All of the general wildlife surveys 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 of the lizards were 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 this species cannot be ruled out.

Nesting Birds

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

Environmental Consequences

Special-status species that have the potential to be present during project construction and/or may be affected by the project are discussed below.

Bats

Removing the bridge will cause a temporary loss of night roosting habitat for bats until the new structure is completed. However, the planned construction strategy will allow the new bridge to be partially built before the existing bridge is demolished. This will ensure that new night roosting habitat will 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 the project is not expected to 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-disturbing activities may cause dust and vibrations, which could temporarily discourage foraging or traveling American badgers from entering the Biological Study Area.

Coast Horned Lizard and Northern California Legless Lizard

While the project is not expected to adversely impact these species, excavation activities within the project area could kill, injure, or displace burrowing animals that may be present. Environmentally sensitive area fencing may temporarily block animals that use the Santa Maria River as a wildlife corridor during construction. Project activities may indirectly impact both of these species by temporarily reducing potential foraging or burrowing habitat areas. Indirect impacts from increased dust levels, vibration, and noise may also discourage these species from living or foraging in the Biological Study Area and force them to venture away.

Nesting Birds

Estimated impacts on potential nesting habitat throughout the Biological Study Area include riparian, vegetated, and non-vegetated streambank communities. Temporary construction access will cause most of the temporary impacts on potential nesting habitat. Removing vegetation, including riparian trees, could directly impact active bird nests and any eggs or young birds living in nests, but only if vegetation is removed during the nesting bird season, which is from February 1 to August 31. The understory vegetation that surrounds impacted trees will also be removed, which could disturb prey such as insects, small mammals, and reptiles. Removing potential nesting trees for two consecutive work seasons will temporarily reduce the availability of nesting and roosting habitat. However, 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.

Noise and dust associated with construction could also cause indirect impacts. Noises created by large construction equipment could change perching, foraging, and/or nesting behaviors. Dust could disturb air quality, reduce sight visibility, and hide potential prey.

While the temporary loss of vegetation that supports potential nesting habitat will occur, trees will be mitigated through onsite replacement plantings. Implementing avoidance and minimization measures such as appropriately timing vegetation removal, conducting pre-activity surveys, and installing exclusion zones will reduce the potential for adverse effects to nesting bird species.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented to reduce potentially significant impacts to less than significant impacts under CEQA for special-status animal species.

- 1) Before starting stream dewatering, Caltrans staff will conduct a worker environmental training program, which will describe 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 that are 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 use the new or existing Santa Maria River Bridge. The hours of work restriction will be from 1 hour after sunset to 1 hour before sunrise, which will vary based on the time of year.

- 3) Specific day and night artificial bat roosting habitat and/or structures will be added to the new bridge structure. Day roosting habitat such as Oregon wedges and small crevices that are just big enough for roosting bats will be provided on the new bridge. Also, wooden bat boxes will be installed underneath the northern span of the new bridge. These bat boxes will provide a windbreak and thermal buffer for bats roosting at night.

American Badger

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

- 4) A pre-construction survey will be conducted for the American badger no less than 14 days and no more than 30 days before starting construction or project-related activities that are likely to impact the species. The survey will identify American badger habitat features on the project site, evaluate American badgers' activities and, if possible, assess the potential impacts on the American badger by proposed activities. 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 three days to determine the current use. If no American badger activity is seen during this period, the dens will be destroyed immediately to prevent future use. If American badger activity is seen at the dens during this period, the dens will be monitored for at least five 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 dens are determined to be unoccupied will they be excavated under the direction of a biologist.
- 5) If the pre-construction survey reveals an active den or new information regarding American badger presence within the area of potential impact, Caltrans will notify the California Department of Fish and Wildlife.
- 6) Before groundbreaking, a qualified biologist will conduct an environmental education and training session for all construction personnel. Before, 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 restricted within the project site.
- 8) A litter control program will be established at each project site. No canine or feline pets or firearms—except for those associated with law enforcement officers and security personnel—will be allowed on construction sites to avoid harassing, killing, or injuring American badgers.

- 9) Maintenance and construction excavations that are more 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 American badgers.

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) A Caltrans biologist will monitor initial excavation and vegetation removal.
- 11) Coast horned lizards, Northern California legless lizards, or any species (excluding state or federally listed species) that are discovered during monitoring will be captured by a Caltrans biologist and relocated to suitable habitat that is 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) Pre-construction surveys will be conducted within 14 days of construction. Caltrans biologists will place plywood boards around the bridge to attract Northern California legless lizards. If Northern California legless lizards are found during these checks, they will be relocated outside the construction area.

Nesting Birds

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

- 13) To avoid potential impacts on nesting birds, vegetation removal for the project will be scheduled to occur outside of the nesting bird season, which is typically from September 1 to January 31.
- 14) If vegetation removal or other construction activities are proposed to occur during the nesting bird season (February 1 to August 31), a Caltrans biologist will conduct a nesting bird survey no more than three days before construction.
- 15) During construction, active bird nests will not be disturbed, and eggs or young birds of native migratory birds that are 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. A qualified biologist will establish environmentally sensitive areas. Depending on the sensitivity of the species in question, work in environmentally sensitive area zones will occur only under the supervision of a biological monitor until young birds have fledged (permanently left the nest) or a qualified biologist has determined that nesting activity has otherwise stopped.

- 16) Trees that must be removed will be noted on design plans. Before starting any ground-disturbing activities, high visibility fencing, or flagging will be installed around the dripline of trees within the 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 U.S., 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

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

An updated U.S. Fish and Wildlife Service species list and updated Marine Fisheries Service species list was obtained for the project on August 27, 2020 (see Appendix G).

Federal Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service was conducted for federally threatened or endangered species and their associated habitat. A Biological Opinion for the La Graciosa thistle critical habitat, and a Programmatic Biological Opinion for the California red-legged was obtained on February 20, 2020 (see Appendix G).

Federal Endangered Species Act Section 7 consultation with the National Marine Fisheries Service was conducted for federally threatened or endangered species and their associated habitat. A Letter of Concurrence for the southern California steelhead and its associated critical habitat was obtained on November 14, 2019 (see Appendix G).

Based on the lack of suitable habitat and the lack of observations during appropriately timed floristic surveys, the Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on the following federally listed plant species: California Jewelflower (*Caulanthus californicus*), Gambel's watercress (*Rorippa gambelii*), marsh sandwort (*Arenaria paludicola*), salt marsh bird's beak (*Cordylanthus maritimus ssp. maritimus*), spreading navarretia (*Navarretia fossalis*), Gaviota tarplant (*Deinandra increscens*), Pismo clarkia (*Clarkia speciosa 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.

Base on the lack of suitable habitat, the Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on the following federally

listed animal species: Kern primrose sphinx moth (*Euproserpinus Euterpe*), El Segundo blue butterfly (*Euphilotes battoides allyni*), vernal pool fairy shrimp (*Branchinecta lynchi*), blunt-nosed leopard lizard (*Gambelia silus*), marbled murrelet (*Brachyramphus marmoratus*), California least tern (*Sternula antillarum browni*), California clapper rail (*Rallus longirostris obsoletus*), western snowy plover (*Charadrius alexandrinus nivosus*), giant kangaroo rat (*Dipodomys ingens*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), and tidewater goby (*Eucyclogobius newberryi*). There will be no effect on designated critical habitat for these animal species.

La Graciosa Thistle Critical Habitat

Federally designated critical habitat for the La Graciosa thistle is found within the Biological Study Area around the Santa Maria River and next to riparian areas. Outside these areas, the primary constituent elements for the La Graciosa thistle critical habitat are absent. The developed urban and agricultural areas north and south of the river lack the primary constituent elements required for La Graciosa thistle critical habitat.

La Graciosa Thistle

The La Graciosa thistle was not found during appropriately timed surveys within the Biological Study Area and there is a low possibility of occurrence.

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. The Biological Study Area could also provide migration corridors for juveniles as they make their way from spawning sites upstream back to the Pacific Ocean. Flows in the Santa Maria River are controlled mostly by 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 Southern California 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. Because the steelhead in this region have adapted to seasonal flows following rains, they can use intermittent streams such as the Santa Maria River. Because of 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 steelheads were not performed for this project because the Santa Maria River is dry for most of the year, and water was not present during any surveys. Twitchell Dam and the Santa Maria River are not expected to have any surface flows during the dry

season, so no migrating steelheads will be present during project construction. Juvenile and adult steelheads 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 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 lives in the Southern California Coast 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; the California Department of Fish and Wildlife classifies it as a Fully Protected Species. 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 seen 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 serves as marginal habitat for birds such as the southwestern willow flycatcher and Least Bell's vireo. Both bird species 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 refuge.

The nearest known occurrence of the California tiger salamander is about 4.5 miles south of the project and south of the City of Guadalupe. Given the distance from known breeding ponds and the fact that the City of Guadalupe acts as a dispersal

barrier, the California tiger salamander appearing 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 County, San Luis Obispo County, and Santa Barbara County support the largest remaining California red-legged frog populations within California. California red-legged frog habitat includes a variety of areas, including aquatic, riparian, and upland habitats. This species prefers aquatic habitats with water that exhibits little or no flow.

Protocol-level surveys were not conducted for the California red-legged frog for this project because its presence was inferred based on local records and suitable habitat in and next 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.

Habitat assessment surveys were 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 California red-legged frogs. 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 nearby 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 California red-legged frogs were found in 2005. Also, 28 adults and 15 juveniles were found during the survey season of 2002 in an agricultural ditch about 2.5 miles north of the Biological Study Area. There are also several occurrences of California red-legged frogs within the Santa Maria River and nearby agricultural ditches about 3 to 10 miles upstream of the Biological Study Area.

Environmental Consequences

La Graciosa Thistle Critical Habitat

The project will temporarily affect up to 1.63 acres of designated La Graciosa thistle critical habitat within the Santa Maria River and the surrounding riparian area. However, the entire area does not provide the required 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 because they do not meet all of the requirements. Also, designated critical habitat for the La Graciosa thistle in California totals about 24,133 acres. The 1.63 acres that the project may affect represent less than 0.001 percent of the total designated critical habitat for this species.

Vegetation removal and grading will 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 what is currently found. Native seeds will be used to replace existing non-native and invasive species, and the ground will be recontoured to its original grade. Trees removed will be replaced with native trees at a minimum ratio of 1 to 1. Critical habitat will be left in a better condition than what 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 low 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 revegetating critical habitat that is disturbed by project activities.

La Graciosa Thistle

The project is expected to have little or no effect on the La Graciosa thistle because there is a low probability of the species occurring within the project limits and no La Graciosa thistle is expected to be found when project construction starts. The Federal Endangered Species Act Section 7 effects determination is that the project will not affect the La Graciosa thistle.

Southern California Steelhead Critical Habitat

The project will temporarily impact an estimated 1.20 acres of critical habitat for the Southern California steelhead. Because the presence of primary constituent elements in the Biological Study Area is entirely dependent on rains and whether water is released from Twitchell Dam, the estimated impacts on Southern California steelhead critical habitat match the ordinary High-Water Mark measurement of the Santa Maria River.

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

Implementing the project will also cause temporary impacts on dry streambed habitat. Moving equipment into the stream channel, building the new bridge, and demolishing the existing bridge will be performed while the Santa Maria River is dry to avoid impacts on migrating Southern California steelhead. Work on the bridge deck will occur when the Santa Maria River is flowing, but no in-channel work will occur in Southern California steelhead critical habitat. Also, any impacts on Southern

California steelhead critical habitat during the dry season will be minimized through the implementation of avoidance and minimization measures.

The Federal Endangered Species Act Section 7 effects 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 cause a temporary change of habitat for Southern California steelheads during the wet season. The extent and effects of this are estimated to be low because the requirements for fish passage will be maintained during times when the river is flowing, and no work will occur when the Santa Maria River is flowing. Consultation with the National Marine Fisheries Service will be required for temporary effects on Southern California steelhead critical habitat that will cause a net gain of habitat.

Southern and South-Central Coast California Steelhead

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

During the wet season, the new bridge will be partially built, but the old bridge will not be demolished. Migrating Southern California steelhead may experience a temporary decrease in habitat area during this period, but the amount of habitat reduced by the new pier structures will be very small.

Following construction, Southern California steelhead will benefit from a reduction in permanent structures in the water. Because the new bridge will have a smaller pier footprint and longer bridge spans between pier structures, migrating Southern California steelhead will 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 steelheads. The basis for this determination is that steelhead presence has been inferred (based on the best available information), but there will be no expected take of an individual because all in-channel work will occur when the Santa Maria River is dry. Consultation with the National Marine Fisheries Service was completed on November 14, 2019 and a Letter of Concurrence was obtained for southern California steelhead species.

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

As discussed in Section 2.3.4, Animal Species, impacts to these bird species will be related to the removal of vegetation that could directly impact active bird nests and any eggs or young birds living in nests, but only if vegetation is removed during the nesting bird season (February 1 to August 31).

While the temporary loss of vegetation that supports potential nesting habitat will occur, trees will be mitigated through onsite replacement plantings.

The Federal Endangered Species Act Section 7 effects determination is that the project will not affect 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. No California tiger salamanders are expected to be found within the project area during project construction because dispersal barriers will keep them from entering the work area. No avoidance, minimization, or mitigation measures are expected for the California tiger salamander.

The Federal Endangered Species Act Section 7 effects determination is that the project will not affect and will have no take of California tiger salamanders. The basis of this determination is based on the fact that the City of Guadalupe will act as a dispersal barrier for the nearest known species to occur south of the project area.

California Red-Legged Frog

Though California red-legged frogs were not found during habitat assessment surveys of the project area, they are expected to be present due to the presence of potentially suitable habitat conditions.

Building the access road and the new Santa Maria River Bridge could potentially cause direct impacts through the temporary removal of upland and aquatic habitat, as well as injuring or killing California red-legged frogs.

The potential need to capture and relocate California red-legged frogs will 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 temporarily removing habitat, and noise and vibrations from construction equipment. The temporary reduction and fragmentation of upland dispersal habitat and aquatic breeding habitat could provoke California red-legged frogs—that typically use the Biological Study Area for breeding—to travel farther to find suitable aquatic or upland habitat. Lastly, California red-legged frogs could be flushed from the Biological Study Area because of noises and ground tremors caused by moving trucks and construction equipment.

Though the above impacts could occur, habitat fragmentation and temporary disturbances are unlikely to have a negative influence on the population as a whole. The Biological Study Area is surrounded by continuous streambed and riparian habitat for several miles to the east and west, so the project is not expected to cause

a strain on local populations in search of suitable nearby 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 will not need to travel far to find suitable habitat. No work will occur in the wetted streambank to avoid impacting California red-legged 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. There is also a potential for take of the species during construction. Formal consultation with the U.S. Fish and Wildlife Service was completed on February 20, 2020 and a Programmatic Biological Opinion was obtained for California red-legged frogs.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented to reduce potentially significant impacts under CEQA to threatened and endangered species to less than significant.

The project will implement measures and conditions to comply with Biological Opinions and Programmatic Biological Opinions obtained for the project.

La Graciosa Thistle Federally Designated Critical Habitat

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

- 1) To preserve as much seed bank 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 the 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) Before construction starts, 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 from 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 expected, but if they are required, they 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) Before construction, the contractor will prepare and sign a Water Pollution Control Plan or a Stormwater Pollution Prevention Plan that complies with the Caltrans Stormwater Quality Handbook (Caltrans 2017). Provisions of this plan will be implemented during and after construction to avoid and minimize erosion and stormwater pollution in and near the work area.
- 7) During construction, all project-related hazardous material spills within the project site will be cleaned up immediately. The contractor will keep spill prevention and cleanup materials readily accessible onsite at all times during construction.
- 8) Erosion control measures will be implemented during construction. Silt fencing, fiber rolls, and barriers will be installed at the project site, jurisdictional waters, and riparian habitat.
- 9) During construction, cleaning and refueling 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 stormwater 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 the project limits will be removed, and the affected areas will be returned to pre-construction elevations.

Southern and South-Central Coast California Steelhead

Avoidance and minimization measures for Southern California Coast and South-Central Coast 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 Southern California Coast and South-Central Coast California steelhead 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 discussed in Section 2.3.4, Animal Species 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 stop while Caltrans coordinates with applicable regulatory agencies to determine if additional measures are necessary.

California Red-Legged Frog

Avoidance and minimization measures discussed in Section 2.3.2, Wetlands and Other Waters 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 activities will not start until written approval is received from the U.S. Fish and Wildlife Service stating that the biologist is qualified to conduct the work.
- 16) A U.S. Fish and Wildlife Service-approved biologist will survey the project area for no more than 48 hours before work activities start. If any California red-legged frogs are found and are likely to be injured or killed by work activities, the approved biologist will be allowed enough time to move them from the site before work starts. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs to a nearby location that contains suitable habitat that will not be affected by project activities. 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 before the capture of any California red-legged frogs.
- 17) Before project activities start, 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 worksite 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 identifying 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 will be affected in a manner that was not expected by Caltrans and the U.S. Fish and Wildlife Service during a review of the proposed action, they will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring all actions that are causing these effects to be stopped. 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 worksite, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.
- 20) Without the U.S. Fish and Wildlife Service's permission, all refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and not in a location where a spill will drain directly toward aquatic habitat. The monitor will ensure that habitat is not contaminated during such operations. Before work starts, Caltrans will ensure that a plan is in place for a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.
- 21) Habitat contours will be returned to a natural configuration at the end of project activities. This measure will be implemented in all areas that are disturbed by project activities, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible, or if changing the original contours will 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 complete 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 when impacts on the California red-legged frog will be minimal. For example, work that will affect large pools, which may support breeding will be avoided to the maximum degree practicable during the breeding season (November through May). Isolated pools that are important to maintaining California red-legged frogs throughout the driest portions of the year will be avoided to the maximum degree practicable during the late summer and early fall. During project planning, habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service will be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.
- 24) To control sedimentation during and after project completion, Caltrans will implement Best Management Practices issued under the authority of the Clean

Water Act. If Best Management Practices are ineffective, Caltrans will attempt to fix the situation immediately with the U.S. Fish and Wildlife Service.

- 25) If a worksite must be temporarily dewatered by pumping, intakes will be screened with wire mesh with openings no 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. After construction activities are completed, any diversions or barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate. Changing the streambed will be minimized to the maximum extent possible. Any imported material will be removed from the streambed after the project is completed.
- 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 the American bullfrog (*Rana catesbeiana*), signal crayfish (*Pacifastacus leniusculus*), red swamp crayfish (*Procambarus clarkii*), 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 that 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 transported between worksites 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 and exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas that are disturbed by project activities, 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 main method for controlling invasive and exotic plants. However, if it is determined that using herbicides is the only feasible method for controlling invasive plants at a specific project site, Caltrans 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 before herbicides are used. If California red-legged frogs are found, they will be relocated to suitable habitat that is far enough from the project area that no direct contact with herbicides will occur.

- c. Giant reed and other invasive plants will be cut, 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 used on native vegetation.
- f. Herbicides will not be used on or near open water surfaces—no closer than 60 feet from open water.
- g. Foliar applications of herbicides will not occur when wind speeds are more than 3 miles per hour.
- h. No herbicides will be used within 24 hours of forecasted rain.
- i. Qualified Caltrans staff members or contractors will apply all herbicides to minimize overspray and to ensure that all applications are made in accordance with the label recommendations and required and reasonable safety measures. A safe colored dye will be added to the mixture to visually indicate treated sites. Using 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 will not drain directly toward aquatic habitat. Before work starts, 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 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 U.S. 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 and whose introduction does or is likely to cause economic or environmental harm or harm to human health.” The Federal Highway Administration guidance issued on August 10, 1999, directs the use of the state’s invasive species list maintained by the Invasive Species Council of California to define the invasive species that must be considered as part of the NEPA analysis for a proposed project.

Affected Environment

The information used in this section is based on the project’s Natural Environment Study that Caltrans prepared on November 22, 2019.

In total, 31 invasive plant species were identified by the online California Invasive Plant Council Database and were seen 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 hordeaceus*), 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 (*Festuca 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 lanceolata*), rabbitsfoot grass (*Polypogon monspeliensis*), wild radish (*Raphanus raphanistrum*), castor bean (*Ricinus communis*), curly leaved dock (*Rumex crispus*), Russian thistle (*Salsola*), milk thistle (*Silybum marianum*), and tamarisk (*Tamarix*).

The following 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.

These invasive plant species are distributed throughout the Biological Study Area within the Caltrans right-of-way and 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 where seeds may spread along the highway.

It is expected that any identified invasive species will be controlled and removed from the project area during project construction. In addition, invasive species will 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 Section 2.3.2, Wetlands and Other Waters, and Section 2.3.5, Threatened and Endangered Species, will be implemented.

2.4 Construction Impacts

Project construction is expected to start 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).

Demolition and construction-related activities will cause temporary impacts. A variety of construction equipment will be used.

For the Build Alternative, most of the construction activities will occur during the dry season (typically from June to October). The Build Alternative will require a two-stage construction process for bridge demolition and construction. The first stage will involve building half of the new bridge and demolishing half of the existing bridge. The second stage will involve building the other half of the new bridge and demolishing the other half of the existing bridge. The project will also include pavement and sidewalk work.

The project will require creating access and haul roads for equipment and construction crews. The project will also need to establish a staging/storage site for equipment and materials. Temporary construction easements and access areas will be required. During construction, temporary environmentally sensitive area fencing will be installed to prevent disturbances to areas of environmental concern. During construction, State Route 1 will remain open to traffic. Project construction activities are not expected to change the existing levee structure on the Santa Maria River.

Affected Environment

Parks and Recreational Facilities

LeRoy Park is about 300 feet west of the project; the park is also west of State Route 1 on the north side of 11th Street. The park is about 8 acres and contains open space, picnic tables, barbecue equipment, a playground, restrooms, and a building for the Boys and Girls Clubs of America.

Air Quality

The project is in the South Central Coast Air Basin, which consists of San Luis Obispo County, Santa Barbara County, and Ventura County. 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 to be non-attainment for California Ambient Air Quality Standards for ozone and airborne particulate matter that is less than 10 microns in diameter. Santa Barbara County is considered to be in attainment or unclassified for all National Ambient Air Quality Standards.

San Luis Obispo County is considered to be non-attainment for California Ambient Air Quality Standards for ozone and particulate matter that is less than 10 microns in diameter. San Luis Obispo County is considered to be in attainment of the California Ambient Air Quality Standards for particulate matter that is less than 2.5 microns in diameter. San Luis Obispo County is also in attainment for the National Ambient Air Quality Standards for particulate matter that is less than 10 microns in diameter and particulate matter that is less than 2.5 microns in diameter. The eastern portion of

the county is considered to be 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 homes, multi-family homes, and commercial retail stores. The lands that surround the existing bridge are mostly agricultural and fallow, with one commercial paper processing facility northwest of the bridge, 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 made up of 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 Office, and the Santa Maria Area California Highway Patrol.

Traffic and Transportation

State Route 1 provides access to State Route 166 to the south and local roadways along the State 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, which is about 4 miles east of the project site.

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, on the northbound side of State Route 1, just south of 12th Street. The City of Guadalupe owns and maintains the monument. The monument was built in 2019 and is one of three that the city owns. The monument is built out of concrete blocks and cement, with a mix of architectural features. The base of the monument is concrete and has been shaped, painted, and 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 the state right-of-way; 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 permit's conditions required the City of Guadalupe to relocate the monument at Caltrans' request. Based on Caltrans' Gateway Monument Policy, Caltrans is obligated to:

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

Environmental Consequences

Parks and Recreational Facilities

During construction, access to LeRoy Park will not be affected because the project limits do not include 11th Street. Construction-related activities will produce noise that may be heard by users of LeRoy Park. Though the noise may be heard, construction noise will be temporary and intermittent. Construction-related noise is not expected to affect park operations. Construction-related activities will also generate fugitive/errant dust that could be windblown toward the park. However, fugitive/errant dust generated during project construction will be temporary and intermittent and is not expected to adversely affect park operations.

Air Quality

Certain construction activities, such as demolition, grading, and paving can cause temporary impacts on air quality and generate air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. Equipment emissions can vary every day, depending on the level of activity, the specific type of operation, and the current weather conditions. Using heavy equipment during project construction can also generate fugitive dust that may temporarily impact the local air quality.

Earthwork, which is expected to generate dust, will be required for the improvements associated with the project. Removing the existing bridge structure will require demolition activities, which could create nuisance dust near the work location.

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

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

Noise

Noise from construction activities is expected to intermittently dominate the noise environment in the area immediately surrounding the project. Noise impacts from project construction 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. Nearby homes may be exposed to temporary construction noise during project construction.

No adverse noise impacts from construction activities are expected because construction noise will 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 homes.

Emergency Services

During project construction, bridge access for emergency services will be maintained. Traffic control during project construction may temporarily delay emergency service providers. The project will not affect emergency service access to interconnecting roads from State Route 1 or local roads in the project vicinity.

Temporary lane closures will be communicated to the appropriate fire, law enforcement, and other emergency service agencies to ensure continued adequate service. A Transportation Management Plan will be implemented to assist emergency service providers during project construction and to minimize 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. The effects will be minor because State Route 1 will remain open throughout the construction of the bridge.

Community Character

The roadway that approaches the bridge will need to be adjusted to match the new bridge alignment. State Route 1 will shift eastward. The new alignment will then conflict with the gateway monument that is south of 12th Street. Based on the current project design, the project is expected to require the monument to be removed from the state right-of-way, which may temporarily impact the City of Guadalupe's community character.

Caltrans will coordinate with the City of Guadalupe to investigate the potential to install community identifiers as a substitute for the monument. If community identifiers are to be installed, they will be placed within the project limits and incorporated into the project design. Using community identifiers is expected to 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 caused by project construction activities.

Parks and Recreational Facilities

- 1) The avoidance and minimization measures that are required to address temporary construction-related impacts on air quality and noise will also be applicable to minimizing potential construction-related impacts on parks and recreational facilities.

Air Quality

- 2) The Caltrans Standard Specifications section that pertains to dust control and dust palliative application is required for all construction contracts and will effectively reduce and control construction-emission impacts.
- 3) The provisions of Caltrans Standard Specifications Section 10-5 Dust Control, and Section 14-9 Air Pollution Control, require the contractor to comply with all rules, ordinances, and regulations of the California Air Resources Board and San Luis Obispo County Air Pollution Control District.
- 4) The project-level Stormwater 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, dewatering excavated areas, and grading areas.
- 5) A Debris Containment and Collection Plan will be included in the project's standard special provisions to effectively capture and collect all demolition debris and waste materials to prevent any materials from entering the creek channel or migrating offsite during windy conditions. All stockpiled construction debris should at least be covered daily or be hauled off as soon as possible.
- 6) If inspections during construction determine 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 will be conducted in accordance with Caltrans Standard Specifications Section 14.8-02.
- 8) The following measures will be included to minimize temporary project-related noise impacts:
 - a. Each internal combustion engine that is used on the job will be equipped with a muffler that is recommended by the manufacturer. No internal combustion engine will be operated without an appropriate muffler.
 - b. Notify surrounding homes in advance of the construction schedule when unavoidable construction noise and upcoming construction activities that are likely to produce an adverse noise environment are expected. This notice will be given two weeks in advance. The notice will include the dates and duration of proposed construction activities and will be published in local news media. The District 5 Public Affairs department will post notices of the proposed construction with project contact information and potential community impacts after receiving them from the resident engineer.
 - c. Limit all phases of construction to acceptable hours, Monday through Friday. Night work is not anticipated for project completion. If night work is

required, additional coordination and measures will be implemented to minimize nighttime noise impacts.

- d. Shield especially loud pieces of stationary construction equipment.
- e. Locate portable generators, air compressors, etc., away from sensitive noise receptors.
- f. Limit grouping major pieces of operating equipment in one area to the greatest extent feasible.
- g. Place heavily trafficked areas (such as the maintenance yard) and construction-oriented operations in locations that will be the least disruptive to surrounding sensitive noise receptors.
- h. Ensure that all equipment items, such as mufflers, engine covers, and engine vibration isolators, have the manufacturers' recommended noise abatement measures intact and operational. Internal combustion engines used for the job will be equipped with a muffler or baffle that is recommended by the manufacturer.
- i. Appropriate project staff contacts will be provided to residents, and Caltrans district noise staff will be consulted if complaints are received during the construction process.

Emergency Services

- 9) 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 established emergency response plans.
- 10) The project will use temporary traffic control and temporary traffic management during construction to ensure that emergency access through the project site and on State Route 1 is maintained.

Traffic and Transportation

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

Community Character

- 12) Where feasible, the project will incorporate aesthetic treatments and/or design features that may be required as part of any planned community identifiers. Caltrans will also coordinate with Resilience Guadalupe and Amigos de Leroy Park Committee to consider appropriate community character aesthetics.

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 comes from the Natural Environment Study that was 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 must be 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 a project-specific analysis, which typically consists 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

La Graciosa thistle critical habitat was first designated on March 17, 2004 and included about 41,000 acres in San Luis Obispo County and Santa Barbara County. The designation of the critical habitat was revised on November 3, 2009, with about 24,000 acres in San Luis Obispo County and Santa Barbara County. The Designated Critical Habitat intends to conserve the physical and biological features required to sustain populations of the 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 the La Graciosa thistle.

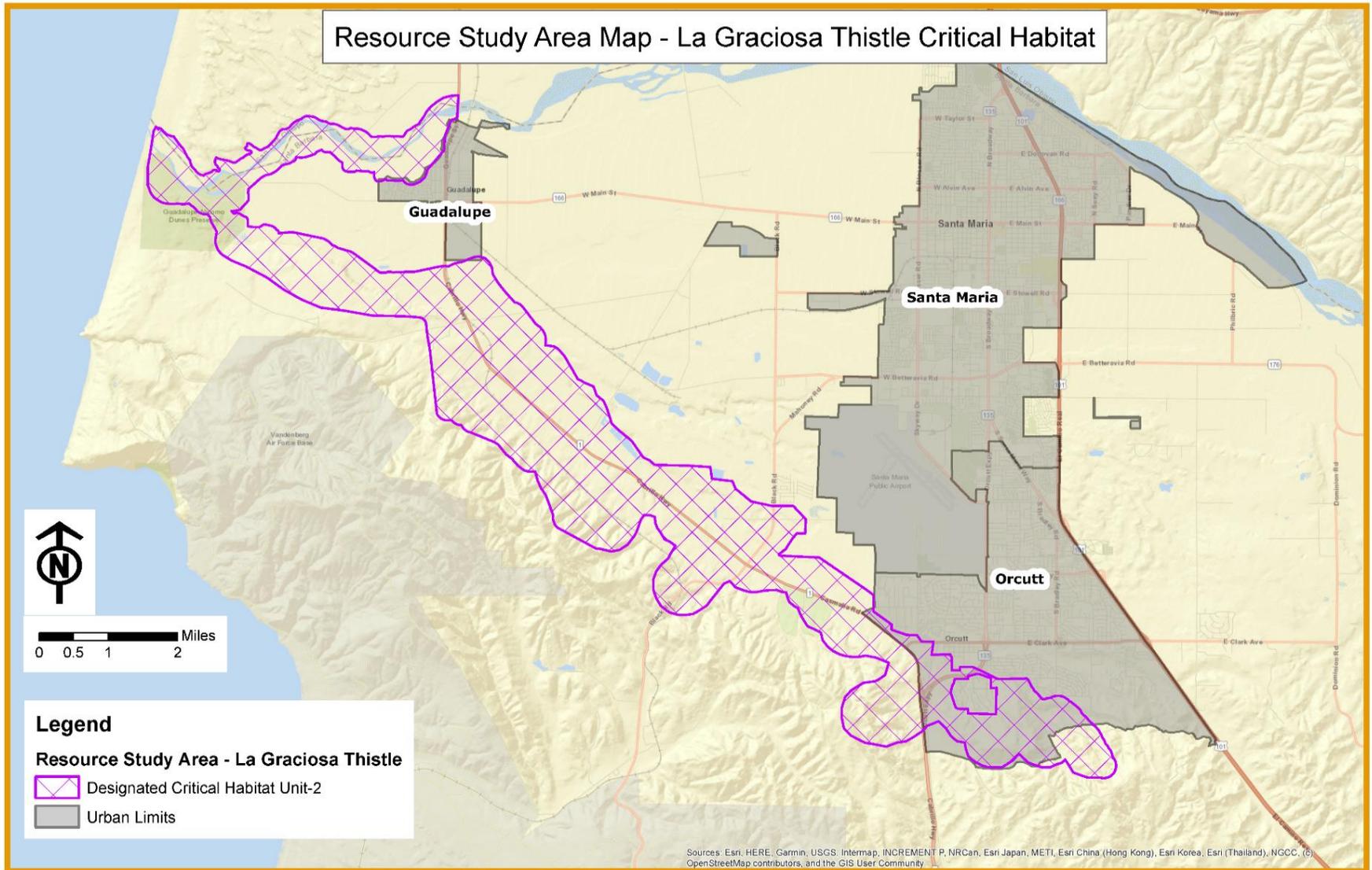
The project area is partially within Unit 2—also known as the Santa Maria River-Orcutt Creek unit—of the Designated Critical Habitat for the La Graciosa thistle. For this analysis, Unit 2 of the Designated Critical Habitat for the La Graciosa thistle is used as the Resource Study Area (see Figure 2-4).

For most of its entirety, Unit 2 is within the northwestern portion of Santa Barbara County and is within the area of the California Water Service and the Santa Maria Valley Planning. The size of Unit 2 is about 13,000 acres and runs for about 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 extends in a southeastern direction, following Orcutt Creek and State Route 1, until it reaches the unincorporated community of Orcutt and ending at the northern limits of the Solomon Hills.

Unit 2 includes the northwestern portion of the City of Guadalupe, southwestern portion of the unincorporated community of Orcutt, southeastern portions of the Guadalupe sand dunes, and the northern portions of the Rancho Guadalupe Dunes Preserve. Much of Unit 2 contains rural lands that are zoned for agricultural use. Most of the agricultural lands within Unit 2 are involved in California's Williamson Act, which is an agricultural preservation program. Urban environments are next to Unit 2, and urban development has occurred next to or within Unit 2 in the past. There is the potential that future urban development may occur next 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 barely stable. Much of the land within Unit 2 is used for agricultural activities; very little 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 discourage future development projects and limit 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 increasing presence of non-native species.

Figure 2-4 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 County, San Luis Obispo County, and Santa Barbara County.

California red-legged frogs can be found in a variety of areas, including aquatic, riparian, and upland habitats. California red-legged frogs can also 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.

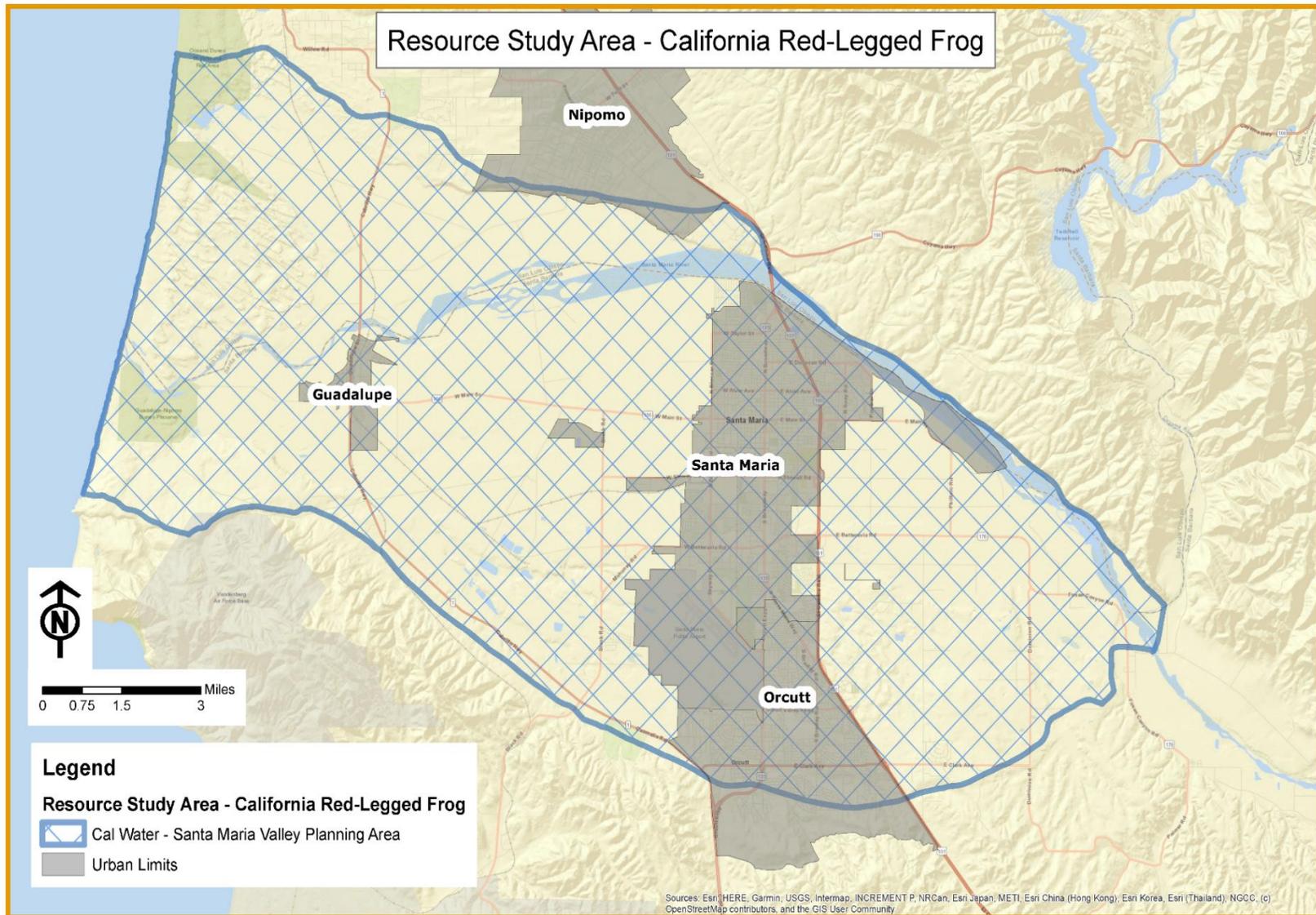
A Final Recovery Plan for this species was approved in 2002. According to the plan, delisting the California red-legged frog could occur by 2025 if recovery criteria are met.

The Resource Study Area for the California red-legged frog species is defined by the California Water Service - Santa Maria Valley Planning Area (see Figure 2-5), which is a subset of the greater Santa Maria River Watershed. The Resource Study Area is within the Santa Maria River - Santa Ynez River Core Area, which is identified by the Final Recovery Plan for the species.

The planning area is within the southeastern corner of San Luis Obispo County and within the northwestern 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 Tepusquet ridges along the east, and the Nipomo Mesa on the north. The Santa Maria River flows northwest along the eastern boundary before heading southwest toward the ocean. The planning area contains a mix of rural and urban environments. Urban environments in the planning area are focused along major roadways. Most of the planning area is rural and mainly used for agricultural practices. The planning area contains the City of Santa Maria, the City of Guadalupe, the unincorporated community of Orcutt, and part of the community of Nipomo. The planning area also contains portions of the Guadalupe-Nipomo Dunes, the Santa Maria Valley, and the Santa Maria River.

Within the California Water Service - 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 Resource Study Area for California Red-Legged Frog



The current health of the California red-legged frog species within the California Water Service - Santa Maria Valley Planning Area is considered poor; the overall trend for the species in the region is expected 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 main reason for the expected declining trend is the potential for the continuation of future development in the Santa Maria Valley, which will remove any remaining potentially suitable dispersal, refuge, or breeding habitats.

Environmental Consequences

Potential direct and indirect impacts to identified resources caused by the project and 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 unincorporated community of Orcutt, Santa Barbara County, and San Luis Obispo County.

Current and Reasonably Foreseeable Projects

The Neighborhoods of Willow Creek and Hidden Canyon

This project occurs within the Resource Study Areas for La Graciosa thistle critical habitat and the California red-legged frog. This project is in Santa Barbara County, about 1 mile west from the unincorporated community of Orcutt. The project is on the south side of State 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 will occur on undeveloped parcels, totaling about 177 acres. About 80 acres will be developed into 146 single-family homes and the remaining 97 acres will be left as undisturbed open space. A Subsequent Environmental Impact Report was prepared in June 2019 and was publicly circulated for review and comment from June 21, 2019 to August 5, 2019. Approval of the Subsequent Environmental Impact Report is pending.

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

This project occurs within the Resource Study Areas for La Graciosa thistle critical habitat and the California red-legged frog. The final habitat conservation plan is around the existing wastewater reclamation plant that is at the end of Dutard Road, about 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, 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 the 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 the Resource Study Areas for La Graciosa thistle critical habitat and the California red-legged frog. The project is in Santa Barbara County on State Route 1, from Solomon Road near the unincorporated community 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 and repair heavily distressed pavement on a 20-mile segment of State Route 1. The project will also involve the following: installing shoulder backing; upgrading existing guardrails; repairing, replacing, or upgrading dikes and curbs; replacing traffic striping, and upgrading and raising existing drainage inlets. Project activities will occur within the existing Caltrans right-of-way, and on areas that are already disturbed by past projects and maintenance activities. Project activities are limited to the existing highway surface and nearby unpaved surfaces. A Natural Environment Study was completed for the project in September 2017. The environmental document for the project was approved in May 2018. The project design plans were approved in October 2019. Project construction is expected to start in July 2020.

Solomon Canyon Rumble Strip and Shoulder Widening Project

This project occurs within the Resource Study Areas for La Graciosa thistle critical habitat and the 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 unincorporated community 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; an approved project document is not expected until April 2021. Project construction is not expected to start until 2024.

Municipal Projects

Various municipal projects occur within the Resource Study Areas for La Graciosa thistle critical habitat and the California red-legged frog. The City of Santa Maria, the City of Guadalupe, and the unincorporated community of Orcutt are within the Santa Maria Valley. These municipalities have several development plans within their boundaries that may include urban development, infrastructure 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 expected to support the well-being of the municipality. Often these future projects will occur on the fringes or infills of the municipality and are of varying scope and scale. Specific projects within the municipalities may not be identified in the plans, which show the

types of projects that are expected for a location. Development projects that occur on infills are expected to have little or no potential to affect natural resources, although they may have the potential to support non-native species. Development projects that occur on the fringes or outside of the urban boundary have a greater potential to affect existing natural resources because these developments will most likely result in the loss of potential species or habitats. It is expected that any proposed development project within each municipality will require site investigations, and any special-status species or habitats that are identified onsite will 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, the 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 on special-status plant species caused by project activities can be mitigated to less than significant. The project plans to avoid impacting special-status plant species to the greatest extent possible. If avoiding special-status plant species is not feasible, the project plans to mitigate at a ratio of 2 to 1 for species or habitats. The report does not call out measures specifically for the 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 the La Graciosa thistle. It is expected 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 the La Graciosa thistle of varying conditions. However, the La Graciosa thistle species has not been recorded within the planning site. The plan expects that protective measures will be used for La Graciosa thistle critical habitat to avoid or minimize potential impacts. Also, any disturbed critical habitat areas will be restored to mitigate for impacts.

Solomon Canyon Rumble Strip and Shoulder Widening Project

Based on the Natural Environment Study that was completed for the project, the project is partially within Unit 2 of the federally designated critical habitat for the La Graciosa thistle. The project is expected to cause permanent and temporary impacts to federally designated La Graciosa thistle critical habitat. Permanent impacts will result from installing new roadway features that will be placed outside of the existing paved roadway. Temporary impacts will result from construction activities, such as equipment operation, worker foot traffic, and temporary staging. However, the existing critical habitat within the project limits is ruderal and already highly disturbed. Also, no La Graciosa thistle was seen within the project area during appropriately timed surveys, and none are expected to occur within the project area. The project is not expected to adversely impact the La Graciosa thistle or potential critical habitat within the project area.

Solomon Canyon Rumble Strip and Shoulder Widening Project

Although environmental investigations have not been completed for this project, the project is expected to be within Unit 2 of the federally designated critical habitat for the La Graciosa thistle based on the project location. Because this project will occur in the same area as the Solomon Canyon Capital Maintenance Project, it is expected that this project will result in similar findings for the La Graciosa thistle and its critical habitat. It is also expected that this project will not cause project-related impacts to the La Graciosa thistle or its critical habitat within the project limits because the project area is already in a poor or disturbed condition.

Municipal Development Projects

The City of Guadalupe and the unincorporated community of Orcutt are next to the Resource Study Area for La Graciosa thistle critical habitat. There is the potential for municipal development projects to affect designated critical habitat areas directly or indirectly. It is expected that municipal projects that occur within the boundaries of the municipality will not drastically affect designated critical habitat areas. However, it is expected that the future growth trend of existing municipalities has the potential to negatively affect existing La Graciosa thistle critical habitats. It is expected that development projects that have the potential to affect federally designated critical habitats may require a 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 the La Graciosa thistle will continue to be impacted. The disturbances will include permanent and temporary impacts to designated critical habitat areas. However, some of the critical habitat areas that will be disturbed are in poor condition or are not expected to support the La Graciosa thistle. Other projects in the region that have the potential to disturb critical habitat areas that can support the 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 will occur. However, each project is expected to offset its contribution to cumulative impacts through project avoidance, minimization, or mitigation measures.

The Santa Maria Bridge Replacement Project is not expected to substantially contribute to cumulative impacts on the La Graciosa thistle critical habitat within the Resource Study Area. Potential La Graciosa thistle critical habitat that will be temporarily disturbed by the project will be revegetated and restored, as discussed in Section 2.3.5, Threatened and Endangered Species. Also, the project is not expected to permanently impact 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 frogs have been documented in and near the project area. The project

expects that California red-legged frogs may be present and use potential habitat within the project site. The report states that impacts to California red-legged frogs are potentially significant but can be mitigated. The project plans to avoid impacting California red-legged frogs to the greatest extent possible. Potential California red-legged frog habitat within the project site will be identified and avoided. The project plans to establish an offsite conservation easement as compensatory mitigation to offset impacts to California red-legged frogs and their 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 the California Department of Fish and Wildlife is expected for California red-legged frogs. Though the planning area is not within or near any designated critical habitat units, California red-legged frogs have been documented within and around the planning area. The final habitat conservation plan expects that California red-legged frogs may travel through the planning area during dispersal or use potential habitats within and around the planning area. Activities covered in the final habitat conservation plan will cause temporary and permanent impacts to California red-legged frog upland refuge and/or dispersal habitats. Construction activities or normal plant operations could indirectly impact California red-legged frogs. The final habitat conservation plan proposes several avoidance, minimization, and mitigation measures to address impacts to California red-legged frogs, which include a conservation easement to permanently protect about 132 acres of upland refuge and aquatic breeding habitat.

Solomon Canyon Capital Preventive Maintenance Project

Based on the Natural Environment Study, the project is expected to cause minimal direct and indirect impacts to California red-legged frogs. The project's potential to impact California red-legged frogs is expected to be low because of their lack of presence during reconnaissance surveys. The project will propose avoidance and minimization measures to protect California red-legged frogs that may be encountered during project construction; compensatory mitigation is not expected for the project.

Solomon Canyon Rumble Strip and Shoulder Widening Project

Though environmental investigations have not been completed for this project, it is expected that California red-legged frogs have the potential to be found within the project area based on the project location. Because this project will occur in the same areas as the Solomon Canyon Capital Maintenance Project, it is expected to result in similar findings for California red-legged frogs. It is anticipated that this project will have the potential for frog presence within the project limits. The project will implement appropriate avoidance and minimization measures to protect California red-legged frogs.

Municipal Development Projects

The City of Santa Maria, the City of Guadalupe, the unincorporated community of Orcutt, and the community of Nipomo are within the Resource Study Area for California red-legged frogs. There is the potential for municipal development projects to affect California red-legged frogs directly and indirectly. Construction activities associated with municipal projects could potentially kill California red-legged frogs if the frogs are found within the project site. Municipal projects could also disrupt refuge sites or dispersal routes that California red-legged frogs may use. The future growth trend of existing municipalities in the area could negatively affect California red-legged frogs. Municipal projects that could impact California red-legged frogs will require a U.S. Fish and Wildlife Service Section 7 consultation for threatened and endangered species review. Municipal projects will also be required to use measures to avoid impacting California red-legged frogs.

Based on the above-listed projects, California red-legged frogs could 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 frogs. Projects that occur in the Resource Study Area have the potential to disrupt California red-legged frog refuge sites, breeding sites, and dispersal routes, which could also negatively affect the species. Future development in the region is expected to displace California red-legged frogs in the Resource Study Area. This will also cause potentially significant cumulative impacts on California red-legged frogs. Based on the analysis of cumulative impacts on California red-legged frogs in the Resource Study Area, there is a high potential for cumulative impacts to the species, and the species is expected to continue to decline. However, each project is expected to include avoidance, minimization, or mitigation measures to protect California red-legged frogs from potentially cumulative impacts.

Construction activities associated with the Santa Maria River Bridge Replacement Project could contribute to cumulative impacts to California red-legged frogs within the Resource Study Area. However, the project is not expected to substantially contribute to cumulative impacts to California red-legged frogs within the Resource Study Area. The project will implement measures to avoid and minimize potential impacts to California red-legged frogs during project construction. The project will not permanently impact California red-legged frog refuge sites, breeding sites, or dispersal routes in the project vicinity. The project will include measures to protect existing potential habitats and restore areas that were disturbed during project construction as discussed in Section 2.3.5, Threatened and Endangered Species. The expected measures will also have the potential to improve existing conditions for California red-legged frogs in the long term.

Chapter 3 CEQA Evaluation

3.1 **Determining Significance under CEQA**

The 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 National Environmental Policy Act (known as NEPA) and the California Environmental Quality Act (known as CEQA). 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 and the Memorandum of Understanding dated December 23, 2016, and executed by the Federal Highway Administration and Caltrans. Caltrans is the lead agency under NEPA and CEQA.

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 documents.

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, will the project:

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

Less Than Significant Impact—The new bridge will be taller and include pathway rails, which will minimally affect views of scenic vistas. The bridge deck profile will be raised, which will allow for a higher vantage point of the surrounding landscape. This higher vantage point will cause overhead utility wires to be more directly in view and will potentially interfere with the quality of scenic vistas. (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 will 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, will the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact—Though 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.

Project design elements above the bridge deck, such as the barrier and railing will be readily visible from the roadway. By themselves, these types of elements are common and will not be seen as unexpected visual elements in a highway setting. The new barrier and railing will be taller than the existing barrier. When seen with the wider road shoulders and pathway, the new barrier will increase the visual scale and engineered appearance of the structure. These new elements will create a more utilitarian appearance but will add a degree of visual clutter to the setting. As a result, these visual changes will cause a minor reduction of rural character and visual quality to the immediate project area. Though the project will remove existing riparian trees and other plants, any vegetation removed will be replaced and established. As a result, the riverbanks will be fully revegetated and result in a 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 changes. (Visual Impact Assessment, March 15, 2019)

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

No Impact—The project will not include new lighting or sources of glare and will not affect day 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.

Will 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 maps of Santa Barbara County and San Luis Obispo County that were provided by the California Department of Conservation Farmland Mapping and Monitoring Program, the project is next to Prime Farmland. The project will convert some Prime Farmland to non-agricultural use.

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

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

Though the project will result in the minor acquisition of farmland, adequate compensation will be provided for property acquisition, including relocation assistance for residents and businesses as required by law. The project is not expected to be required to acquire the entire properties involved. Caltrans right-of-way agents will 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. Also, avoidance and minimization measures (detailed in Section 2.1.1, Farmland) will 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 will convert land currently under a 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.

Assessor's Parcel Numbers 092-051-020 and 092-051-026 are within the Oso Flaco Agricultural Preserve and are currently under a Williamson Act contract. Because the project meets the necessary criteria allowing for the acquisition of Williamson Act-protected farmland (detailed in Section 2.1.1, Farmland), the project may partially acquire Williamson Act-protected farmland. Also, avoidance and minimization measures (detailed in Section 2.1.1, Farmland) will be implemented to reduce potential impacts to farmland resources. (Farmland Assessment Memo, 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 that is zoned or used for forest land or timberland. Therefore, the project will 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 that is zoned or used for forest land or timberland. Therefore, the project will 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—Though the project will partially acquire farmland that is next to the existing highway, the condition of unaffected farmlands in the project vicinity will not change as a result of the project. Also, no more existing agricultural land will be converted 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.

Will the project:

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

No Impact—The project is consistent with the attainment goals of the San Luis Obispo County Air Pollution Control District, 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 attainment goals of the Santa Barbara County Air Pollution Control District, as stated in the State Implementation Plan. (2015 Ozone Plan and the Scope and Content of Air Quality Sections in environmental documents amended in 2017)

The bridge replacement project will not conflict with or obstruct implementation of an applicable air quality plan. (Air Quality and Greenhouse 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 to be non-attainment for California Ambient Air Quality Standards for ozone and airborne particulate matter that is less than 10 microns in diameter. Santa Barbara County is in attainment for all National Ambient Air Quality Standards.

San Luis Obispo County is considered to be non-attainment for California Ambient Air Quality Standards for ozone and airborne particulate matter that is less than 10 microns in diameter. San Luis Obispo County is in the attainment for the California Ambient Air Quality Standards for particulate matter that is 2.5 microns in diameter. San Luis Obispo County is in the attainment for National Ambient Air Quality Standards for airborne particulate matter that is less than 10 microns in diameter and 2.5 microns in diameter. The eastern portion of San Luis Obispo County is considered to be non-attainment for the federal ozone standard, due to transient emissions originating mainly from the Bay Area and Central Valley.

The project will temporarily increase air emissions and fugitive dust during construction. However, due to the use of standard construction dust and emission minimization practices and procedures, it is expected that project emissions of particulate matter (dust) and equipment emissions will be well within the daily thresholds of the Santa Barbara County Air Pollution Control District and San Luis Obispo County Air Pollution Control District. Therefore, the project will 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 Greenhouse Gas Memo, April 10, 2018)

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact—It is expected that there will 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 near the project limits within Santa Barbara County. The project will temporarily increase air emissions and fugitive dust during construction, which could affect sensitive receptors. However, due to the use of standard construction dust and emission minimization practices and procedures, it is expected that project emissions of particulate matter (dust) and equipment emissions will be well within the daily thresholds of the Santa Barbara County Air Pollution Control District and San Luis Obispo County Air Pollution Control District. Therefore, sensitive receptors will not be exposed to substantial pollutant concentrations. (Air Quality and Greenhouse 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 expected to produce some odors due to construction equipment and activities, but it is not expected to create objectionable odors. Odors resulting from project construction may be noticeable by nearby homes and to members of the public traveling through the project site during construction. Long-term emissions in the region are not expected to change with or without the project. Temporary construction emissions are expected to be well within the daily thresholds of the San Luis Obispo County Air Pollution Control District and Santa Barbara County Air Pollution Control District.

Also, it is expected that sections of Caltrans' Standard Specifications that pertain to air pollution control, emission reduction, dust control, and dust palliative will be implemented for all construction activities, which will also effectively reduce the potential for objectionable odors.

3.2.4 Biological Resources

CEQA Significance Determinations for Biological Resources

Will 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 expected to impact the La Graciosa thistle, which is a federally protected species. The project will 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 disturbances to federally designated critical habitat will be restored, and project-related restoration efforts are expected to improve existing habitat conditions.

Project activities that will occur in the river will be allowed only when the river is dry. The project is expected to avoid impacting steelhead species, which are federally listed as endangered. The project is expected to temporarily impact about 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 Twitchell Dam, work will occur in the riverbed and bank only when the river is dry. Project-related disturbances on the riverbed and bank will be minimized, and disturbed areas will be restored.

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

The project has the potential to impact the 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 expected to temporarily disturb potential critical habitats for the California red-legged frog. 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 in Section 2.3 of this document. These measures will include, but will not be limited to: conducting pre-construction surveys, avoiding sensitive areas, adjusting the construction schedule around species that are breeding or migratory seasons, restricting work when water is present in the river, removing non-native species, replanting native plants, monitoring species, restoring sites, enhancing habitats, and preserving habitats. All mitigation is expected to 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 will temporarily impact up to 3.18 acres of Santa Maria River streambed and vegetated streambank. The project will 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 will 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 expected to impact wetlands or sensitive natural communities.

The project is expected to permanently affect riparian habitats because 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 reduce human-made elements in the river channel; the project could also improve existing riparian habitat conditions. Though the project is expected to permanently impact riparian habitats, the project will result in a net benefit for riparian habitats. Therefore, mitigation for riparian habitats is not expected.

Streambank and riparian vegetation removed by project activities will be revegetated with a native plant seed mix that consists of the existing natural community. Any trees removed because of the project will be replanted at a minimum ratio of 1 to 1, and up to a ratio of 3 to 1 to comply with permit requirements, depending on the tree species and size. All replacement trees will be native species appropriate for the region and habitat. All construction-related disturbances in the streambed will be regraded to match the conditions of the existing streambed.

The project is not expected to substantially impact streambed, vegetated streambank, or riparian habitats. The project will implement avoidance, minimization, and mitigation measures for potential temporary impacts

caused by construction activities. These measures will include, but will not be limited to, identifying habitats, avoiding and minimizing construction activities within the project area, minimizing areas of disturbance, removing non-native species, replanting native plants, restoring sites, enhancing habitats, preserving habitats, and improving landscapes. Project-related mitigations are expected to 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 the project, and no state or federally protected wetlands were identified within the project limits. Therefore, the project will not affect wetlands.

However, the project is 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 discussions regarding native resident wildlife species are found in Section 2.3 of this document.

The project is not expected to cause additional restrictions to wildlife movement in the project area. The project will realign a roadway segment and build a new bridge that will be similar to existing roadway and bridge conditions. The new roadway segment and bridge structure will still allow for continued wildlife access within the project area.

The project is not expected 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 will reduce potential impediments to wildlife movement in the river channel.

The project has the potential to temporarily disturb established native resident wildlife. It is expected that the following wildlife are potentially using 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 bat, western red bat, Townsend's big-eared bat, and nesting birds. The project will include measures to avoid and minimize potential temporary impacts to wildlife species. Restoring habitat and reducing human-made elements in the Santa Maria River channel have

the potential to improve wildlife use 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 will temporarily impact riparian zones; appropriate avoidance and minimization measures will be incorporated as described in Section 2.3 of this document.

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

Will the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 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 effects. Therefore, the project will not cause a substantial adverse change in the significance of a historical resource. (Cultural Resources Review, September 23, 2019)

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

No Impact—The field survey did not detect the presence of any archaeological resources on the surface. The survey also confirmed the substantial level of disturbance the project site has undergone from past construction activities, suggesting a low probability for intact subsurface archaeological deposits. Therefore, the project will not cause a substantial adverse change in the significance of an archaeological resource. (Cultural Resources 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 will be encountered during construction. Therefore, the project is not expected 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 must be contacted. If the coroner thinks the remains are Native American, he or she will notify the Native American Heritage Commission, which, per Public Resources Code Section 5097.98, will then notify the Most Likely Descendant. The person who discovers the remains will contact the District 5 Environmental Branch staff, so that they may work with the Most Likely Descendant on the respectful treatment and disposition of the remains. (Cultural Resources Review, September 23, 2019)

3.2.6 Energy

CEQA Significance Determinations for Energy

Will the project:

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

Less Than Significant Impact—The project will 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 the transportation of materials. 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, the new bridge structure is expected to require less maintenance and less energy to operate. The new bridge is not expected to require excessive consumption of energy resources to operate.

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

No Impact—The project will not conflict with or obstruct state or local energy plans (see Section 3.3, Climate Change).

3.2.7 Geology and Soils

CEQA Significance Determinations for Geology and Soils

Will 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. 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, which is 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 will experience strong seismic ground shaking in a large earthquake. However, the project will 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 the 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 will be designed to resist the effects of liquefaction by using Caltrans' current seismic design standards. (Structures Preliminary Geotechnical Report, November 7, 2016)

iv) Landslides?

Less Than Significant Impact—Based on a topographic map of the project area, the project site is in a flat area and away from any steep slopes. Also, the project will not involve large cuts or fills with steep slopes that could potentially cause 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 the 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 Stormwater Runoff, will further minimize erosion and the loss of topsoil.

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

Less Than Significant Impact—The project is not expected to be on unstable soils, and the project will not result in onsite or offsite landslide, lateral spreading, subsidence, or collapse. The project does have the 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. 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 investigations have not indicated the presence 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact—The project does not involve the construction or installation of septic tanks or alternative wastewater disposal systems.

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

No Impact—The project will 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

Will 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 will not add travel lanes or change vehicle miles traveled and will not change existing greenhouse gas emissions. The project is considered to be a roadway improvement project and will not increase operational greenhouse gas emissions.

Construction activities will generate temporary greenhouse gas emissions. Construction equipment emissions will be generated at different levels during the construction phase. Construction equipment emissions will stop at the end of project construction and are not expected to significantly impact the environment.

All construction activities will include Caltrans' Standard Specifications and Standard Special Provisions to comply with all district rules, regulations, ordinances, and statutes of the California Air Resources Board to reduce construction greenhouse gas emissions (i.e., restrictions on idling equipment, properly maintained equipment, and 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 will not conflict with existing plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases.

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

3.2.9 Hazards and Hazardous Materials

CEQA Significance Determinations for Hazards and Hazardous Materials

Will 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 will be transported into and out of the project site as needed.

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

If project construction encounters an unknown substance, appropriate testing will be conducted. If the substance is hazardous, 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 expected to cause 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—Project construction activities could spill and/or release potentially hazardous substances. The project will incorporate Caltrans' Standard Specifications to prevent and manage spills and releases to reduce hazardous substances' potential of significantly affecting 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 about 0.25-mile northeast of Mary Buren Elementary School. Operation equipment will produce emissions and air pollutants, but the concentrations of emissions and air pollutants are not expected to reach levels considered to be hazardous (see Section 3.2.8). The project will also incorporate Caltrans' Standard Specifications to minimize and

reduce potential emissions and air pollutants generated from 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 will be regulated and controlled to ensure that its potential for affecting the public or the environment will 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, will it create a significant hazard to the public or the environment?

No Impact—A search of databases compiled per Government Code Section 65962.5 did not identify any known hazardous waste sites 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 2 miles of a public airport or public-use airport, will the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact—Based on planning department maps of San Luis Obispo County and Santa Barbara County, the project is not within an airport land use plan, and it is not 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 will 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 Standard Special Provisions to ensure that construction activities will 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 Zone 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

Will the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater 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 because fugitive dust and other materials may enter the river channel.

Though 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 will 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 caused by project activities. Also, the project will include Caltrans' Standard Specifications and Standard Special Provisions to avoid and minimize impacts to water quality caused by project activities.

The project will not discharge wastewater. Portable toilets will be placed in the project site at a considerable distance away from the river channel. Any liquid waste generated from project-related activities will be collected, contained, and disposed of in a manner that is 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 will not involve activities that will require excessive volumes of water that will substantially decrease local groundwater supplies. The project will not involve activities that will interfere with groundwater recharge or impede 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 an 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 will:

i) Result in substantial erosion or siltation onsite or offsite;

Less Than Significant Impact—The project will involve earthwork 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 will 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 onsite or offsite. (Water Quality Assessment, July 25, 2018)

ii) Substantially increase the rate or amount of surface runoff in a manner which will result in flooding onsite or offsite;

Less Than Significant Impact—The project will increase the total impervious surface area within the project limits. However, the project is not expected to change the existing drainage pattern of the site or area in a manner that will result in substantial erosion or siltation onsite or offsite. The project also will not substantially increase the rate or amount of surface runoff in a manner that will result in flooding onsite or offsite. (Location Hydraulic Study, January 10, 2019)

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

Less Than Significant Impact—Though the new bridge structure will increase the total impervious surface area within the project limits, the additional amount of runoff water associated with the new bridge is not expected to exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff. Also, the project will 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 in the Santa Maria River channel and is not expected to impede 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, which will 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 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 Board and the Central Coast Basin Plan. The project will comply with applicable regulations and policies that pertain to the protection of water resources in the region.

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

3.2.11 Land Use and Planning

CEQA Significance Determinations for Land Use and Planning

Will the project:

a) Physically divide an established community?

No Impact—The project will replace the existing deteriorating Santa Maria River Bridge to ensure the continued operation of State Route 1 and will 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 rights-of-way for roadway adjustments. However, temporary construction easements and new rights-of-way associated with the project are not expected 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

Will the project:

a) Result in the loss of availability of a known mineral resource that will 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 will 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

Will 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 expected to permanently change existing noise levels in the area or cause substantial permanent noise impacts to nearby receptors.

Noise generated during project construction, which will vary with the activity and proximity to nearby receptors, will be temporary and intermittent and is not expected to generate adverse noise impacts in the project area.

The project will include Caltrans' Standard Specifications and Standard Special Provisions that pertain 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, regulations, 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 generate 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 will generate temporary groundborne vibrations. Pile installations and pavement removal will occur in segments during project construction, each lasting a few days; they are not expected to result in excessive groundborne vibrations or noise levels. The project will include Caltrans' Standard Specifications and Standard Special Provisions that pertain 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 2 miles of a public airport or public-use airport, will the project expose people residing or working in the project area to excessive noise levels?

No Impact—Based on the available online mapping of the City of Guadalupe, the project is not within an airport land use plan and is not within 2 miles of a public airport, public-use airport, or private airstrip.

3.2.14 Population and Housing

CEQA Significance Determinations for Population and Housing

Will 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 will build a new bridge structure on a new alignment without changing the current highway capacity. It will not change accessibility or influence growth. No direct or indirect impacts on growth will occur.

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

Less Than Significant Impact—The project will build a new bridge structure on a new alignment and will require adjustments to the roadway. The project will require partial property acquisition for additional rights-of-way. However, the amount of partial property acquisition required for the project is not expected to result in the displacement of existing homes or businesses.

3.2.15 Public Services

CEQA Significance Determinations for Public Services

a) Will 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 will replace an existing bridge with a new bridge structure on a new alignment. The project will not require the alteration or creation of facilities related to fire protection.

Police protection?

No Impact—The project will replace an existing bridge with a new bridge structure on a new alignment. The project will not require the alteration or creation of facilities related to police protection.

Schools?

No Impact—The project will replace an existing bridge with a new bridge structure on a new alignment. The project will not require the alteration or creation of facilities related to schools.

Parks?

No Impact—The project will replace an existing bridge with a new bridge structure on a new alignment. The project will not require the alteration or creation of facilities related to parks.

Other public facilities?

No Impact—The project will replace an existing bridge with a new bridge structure on a new alignment. The project will not require the alteration or creation of facilities related to other public facilities.

3.2.16 Recreation

CEQA Significance Determinations for Recreation

a) Will the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?

No Impact—The project will replace the existing bridge with a new bridge structure on a new alignment. The project will not increase the use of existing neighborhood parks 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 will replace the existing bridge with a new bridge structure on a new alignment. It will not include the construction of a new recreational facility or expansion of existing facilities.

3.2.17 Transportation

CEQA Significance Determinations for Transportation

Will 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 motorists, cyclists, and pedestrians during construction. However, traffic control will be used to ensure that State Route 1 remains open to vehicles, cyclists, and pedestrians during the construction of the replacement bridge, which will minimize delays. The project will not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. This takes 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, and pedestrian and bicycle paths. The project will ensure the new bridge is structurally sound and will 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 (State Route 1) and is not expected to significantly change vehicle

miles traveled. The project may result in temporary traffic delays during 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 the current Highway Design Manual standards. The design and operation of the new bridge structure will 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 minor delays for emergency service providers that use State Route 1. However, traffic control will be used to ensure that State Route 1 remains open to emergency vehicles during the construction of the replacement bridge, which will minimize delays. The need for any temporary lane closures will be communicated to the appropriate fire, law enforcement, and other emergency service agencies to ensure the continuation of adequate service. A Transportation Management Plan will be implemented and will assist emergency services during project construction to minimize response time delays.

3.2.18 Tribal Cultural Resources

CEQA Significance Determinations for Tribal Cultural Resources

Will 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, or 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 Resources 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 Resources 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 done for the project. As part of the 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. Also, no tribal cultural resources have been identified in the project area, and none are expected to be found. (Cultural Resources Review, September 23, 2019)

3.2.19 Utilities and Service Systems

CEQA Significance Determinations for Utilities and Service Systems

Will the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater 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 will not relocate or build water, wastewater, stormwater, or natural gas facilities. The project will not relocate telecommunication lines.

Temporary and permanent utility relocations are expected for electrical power lines within the project limits. Utilities will be relocated to ensure their avoidance during project construction. It is expected that temporary and permanent utility relocations will 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. Disturbances associated with utility relocation will be minimized because the project will 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 will 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 uses plants that are California native species and are not expected to require excessive water to establish. During replanting, temporary irrigation systems may be required and will be designed to minimize water use.

Caltrans complies with water conservation requirements set by State Executive Orders 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.

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 will replace an existing bridge over the Santa Maria River on State Route 1 and will not generate wastewater. Portable restrooms will 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 will not generate substantial amounts of solid waste. Project waste will be disposed of at appropriate waste disposal sites that can accommodate the waste materials. The project will 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 will comply with federal, state, and local statutes and regulations related to solid waste. The project will not generate substantial amounts of solid waste during construction and will not generate any solid waste during the 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, will 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 remains open to emergency vehicles during bridge construction to minimize potential delays. During project construction, the need for any temporary lane closures will 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 expected 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 a high fire hazard severity zone 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 will 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 will require temporary and permanent utility relocations. 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 relocations, there is the potential for unintended fires. However, adequate safety precautions will be used to prevent fire incidents in accordance with the 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 flat, with no nearby hills or mountains, so the project will not be exposed to potential landslides. If post-fire conditions are found upstream from the project site, there is 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 expected that the project site will 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 expected project measures, are found in Chapter 2 of this document.

The project will result in a combination of direct and indirect effects on biological resources as a result of temporary and permanent project-related impacts. The project could affect several species that have the potential to be found within the project area. The project could also affect potential species habitat within the project area. However, the project will incorporate avoidance, minimization, and/or mitigation measures that will 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, are discussed in Section 2.5.

The project will remove an existing bridge structure and build a new bridge structure on a nearby alignment. The new bridge structure will be similar in design and appearance to the existing bridge. Disturbances to environmental resources caused by the project are expected to be minor.

The project has the potential to contribute to cumulative impacts on biological species and habitat. The project will result in the permanent loss of potential species habitat. Project construction activities could kill individual special-status species. However, due to the marginal quality of existing species habitat and the low potential for special-status species to occur within the project area, the project is not expected to result in substantial negative cumulative impacts on biological species and habitat.

The project will include measures that will remove non-native invasive species and restore disturbed areas with native vegetation. These efforts could 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 will remove an existing bridge structure and build a new bridge structure on a nearby alignment. The new bridge structure will be designed to meet Caltrans’ design standards and will be similar in appearance to the existing bridge. The new bridge design is not expected to cause direct or indirect substantial adverse effects on 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 on 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 mostly 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.

3.3.1 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.

The National Environmental Policy Act (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. This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability.” 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 U.S. 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 U.S.

The 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 emissions 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 U.S. (U.S. Environmental Protection Agency *Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act*). 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 the California Air Resources 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 Resources 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 Resources 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 Resources 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 emissions 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 reduction targets. It also directs the California Air Resources Board to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalents. 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 will 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 traveled, 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 Resources Board to prepare a report that assesses progress made by each Metropolitan Planning Organization in meeting their established regional greenhouse gas emissions 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.

3.3.2 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 to 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 Plan and the San Luis Obispo Council of Governments' Regional Transportation Plan guide transportation development in the area. The City of Guadalupe's adopted 2002 General Plan guides development within the city limits.

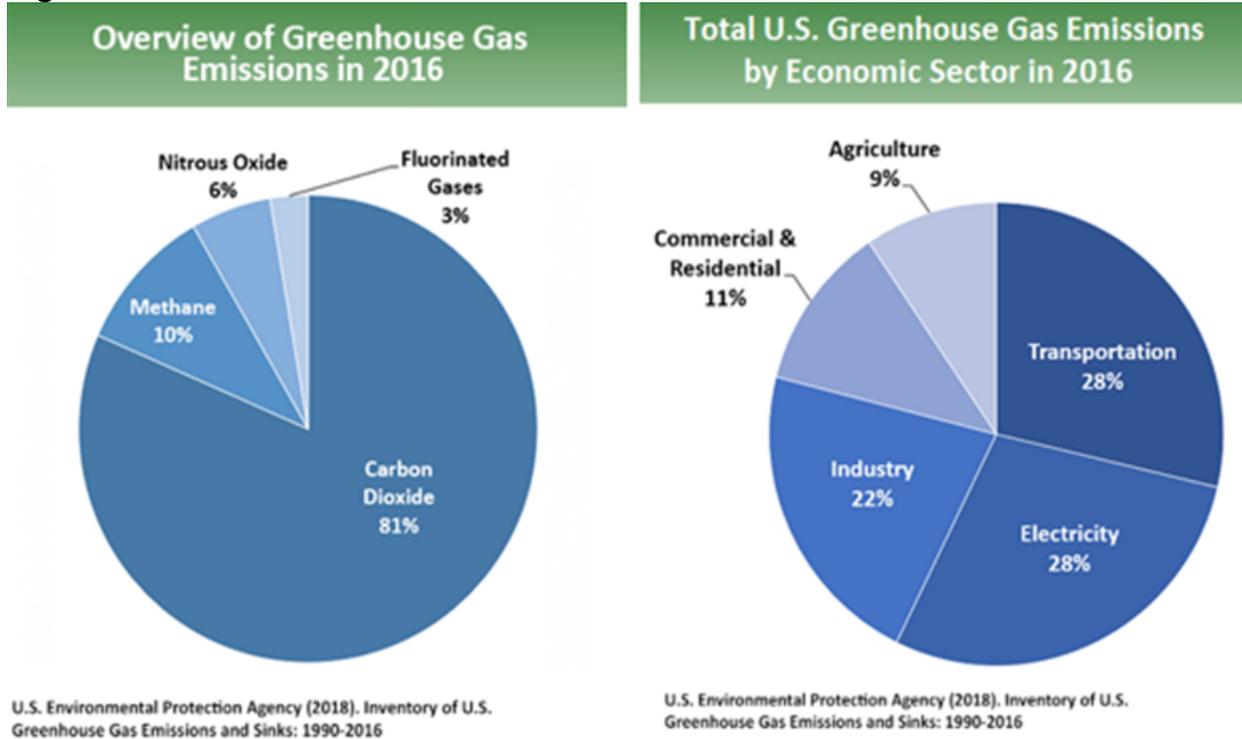
A greenhouse gas emissions inventory estimates the amount of greenhouse gases discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual greenhouse gas emissions allows countries, states, and smaller jurisdictions to understand how emissions are 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 Resources 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 U.S., 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 consists of carbon dioxide, 10 percent are methane, and 6 percent are nitrous oxide; the balance consists of fluorinated gases. 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 Resources 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 Emissions

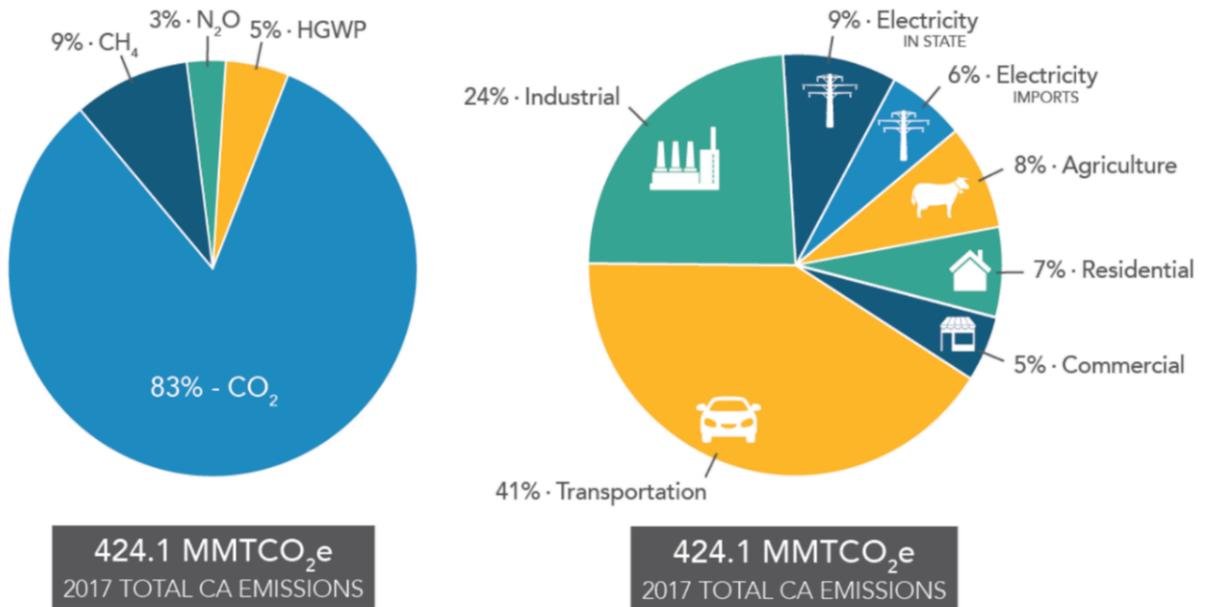
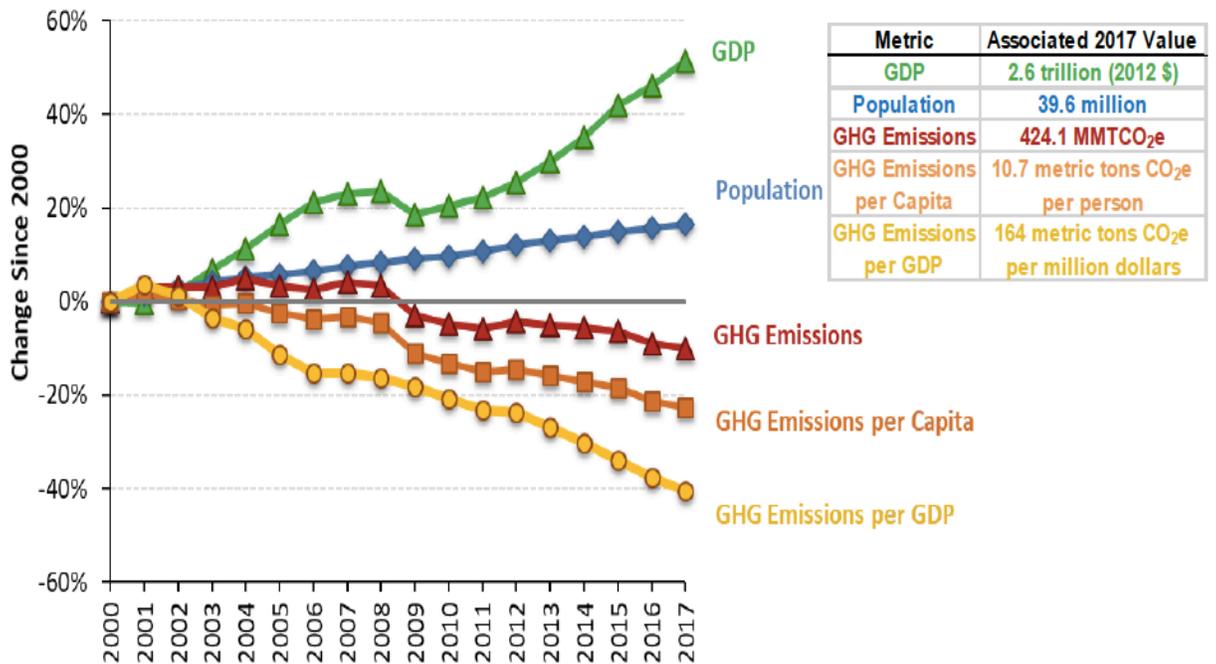


Figure 3-3 Change in California Gross Domestic Product, Population, and Greenhouse Gas Emissions Since 2000



Source: California Air Resources Board 2019

The 2019 edition of the greenhouse gas emissions inventory found total California emissions of 424.1 million metric tons of carbon dioxide equivalents 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.

Assembly Bill 32 required the California Air Resources 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 five years. The California Air Resources 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 Order 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 emissions.

Regional Plans

The California Air Resources 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 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. 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 community-wide sources by a minimum of 15 percent from 2007 baseline emissions by 2020. 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.

3.3.3 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, Section 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 State Route 1. The project will not add travel lanes, increase the roadway’s vehicle capacity, or increase vehicle miles traveled. While some greenhouse gas emissions during the construction period will be unavoidable, no increase in operational greenhouse gas emissions is expected.

Construction Emissions

Construction greenhouse gas emissions will result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, an 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 Caltrans’ Construction Emissions Tool and default settings for a bridge replacement

project. The estimated carbon dioxide emissions will be 181 tons per year or a total of 368 tons generated over a period of about 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 Resources 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 will be carried out during project construction to minimize construction-period traffic delays and emissions.

CEQA Conclusion

Although the project will result in a slight increase in greenhouse gas emissions during construction, the project will not result in an 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 will accommodate multimodal use and support regional plans to improve cyclist access. With the implementation of construction greenhouse gas reduction measures, the project impact will 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.

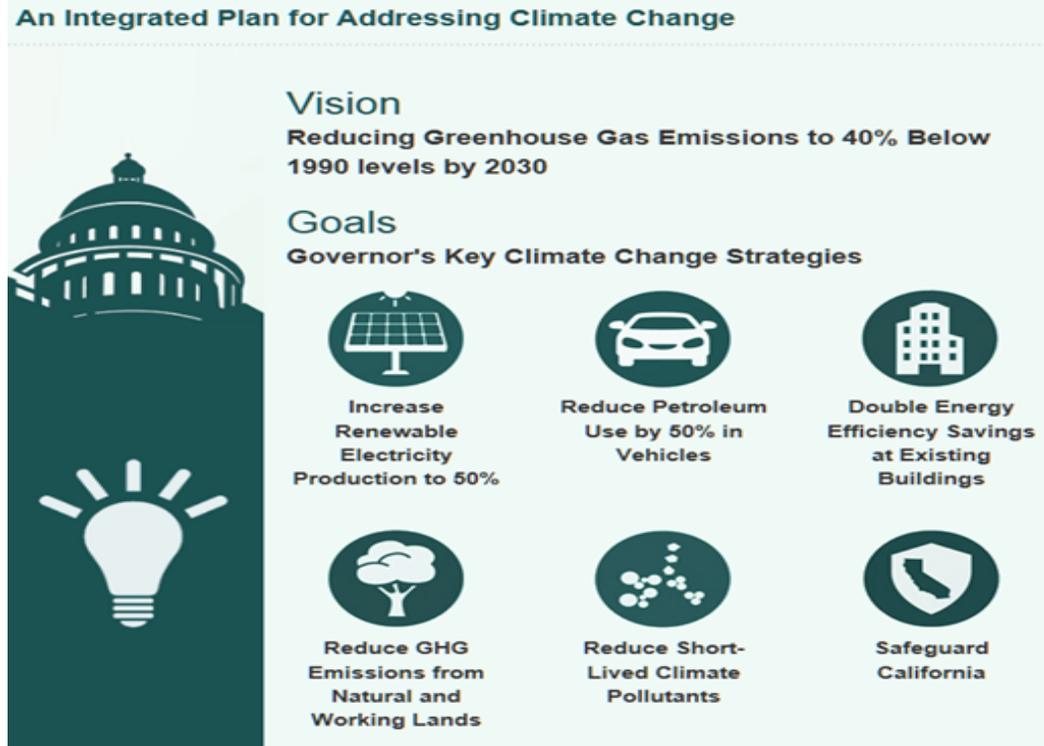
3.3.4 Greenhouse Gas Reduction Strategies

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 emissions reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from the transportation and goods movement. Greenhouse gas emissions 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.

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 Resources 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 emissions 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 emissions 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 will include a Transportation Management Plan that will 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 will be solar powered when possible and will 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 County 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 will revegetate previously undisturbed areas, where applicable, following construction completion. Landscaping reduces surface warming and, through photosynthesis, removes carbon dioxide from the atmosphere.
- The project will add a separated bicycle/pedestrian path, which will support the use of active transportation modes.
- The project will reduce the need for transport of earthen materials by balancing cut and fill quantities.
- The project will reduce construction waste and maximize the use of recycled materials.
- The project will use appropriately sized equipment for project activities.

- The project will maintain equipment in proper tune and working condition.
- The project will limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.
- The project will use compost as part of post-construction restoration efforts where it is deemed appropriate and feasible.

3.3.5 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 Section 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."

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 the 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.”

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.

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 (2018)* 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., will 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 former 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 Analysis

The project is in or next to 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, a dam upstream controls the river's flow.

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 plans to raise the bridge deck elevation to meet current requirements for freeboard (distance above the water surface). Accordingly, the new bridge is likely to withstand expected 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, 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 was sought through the release and review of the draft 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: A Caltrans biologist obtained an official list of threatened and endangered species from the U.S. Fish and Wildlife Service Information for Planning and Consultation database.
- August 29, 2018: A Caltrans biologist generated an official California Natural Diversity Database report for the project area and a half-mile buffer.
- August 29, 2018: A Caltrans biologist generated a California Native Plant Society inventory of potentially affected rare plants for the project area.
- August 29, 2018: A 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 steelheads. Caltrans proposed that the project was not likely to adversely affect steelheads 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 River 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. Jessica 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 steelheads. Jessica Adams also sent a survey report (Stoecker 2005) that describes the historic and recent use of the Santa Maria River watershed by steelheads. The report confirmed that the Santa Maria River is heavily influenced by Twitchell Dam, which often does not release enough water to connect the Santa Maria River watershed to the ocean, resulting in a dry season for the Santa Maria River that is long and predictable. The Stoecker report further stated that the Sisquoc River connects to the Pacific Ocean only a few times per decade due to 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.
- November 14, 2020: The project obtained a Letter of Concurrence from the National Marine Fisheries Service for southern California steelhead species and its designated critical habitats (Appendix G)
- February 20, 2020: The project obtained a Biological Opinion and a Programmatic Biological Opinion from the U.S. Fish and Wildlife Services for federally protected species and its designated critical habitats (Appendix G).
- August 27, 2020: Stephanie Herbert obtained an updated official U.S. Fish and Wildlife Service species list through the U.S. Fish and Wildlife Service Information for Planning and Consultation website for the project.
- August 27, 2020, Stephanie Herbert obtained an updated official National Marine Fisheries Service species list from the National Oceanic and Atmospheric Administration California Species List Tool for the project area.

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.

Public Participation

- The draft environmental document was approved on April 21, 2020. The document was then circulated for public review and comment between May 21, 2020 to July 2, 2020. Public comments received during the public circulation of the draft environmental document are addressed in Appendix H, Comment Letters and Responses.

Chapter 5 List of Preparers

This chapter lists the Caltrans staff and consultant staff who were responsible for the preparation and/or review of this document and/or supporting technical studies for this project.

Caltrans Staff

Myles Barker, Editorial Specialist. B.A., Mass Communication and Journalism, California State University, Fresno; 5 years of writing and editing experience. Contribution: Technical Editor.

Robert Carr, Associate Landscape Architect. B.S., Landscape Architecture, California Polytechnic State University, San Luis Obispo; more than 25 years of experience preparing Visual Impact Assessments. Contribution: Visual Impact Assessment.

Matt Fowler, Senior Environmental Planner. B.A., Geographic Analysis, San Diego State University; more than 19 years of experience in environmental planning. Contribution: Oversight and review of the Initial Study.

Geramaldi, Associate Environmental Planner (Generalist). B.S., Environmental Geography, California State Polytechnic, University Pomona; 5 years of environmental planning experience. Contribution: Coordinated environmental process, oversight of the Initial Study, Farmland Assessment Memo.

Stephanie Herbert, 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.

Terry L. Joslin, Associate Environmental Planner (Archaeology). PhD, Anthropology, University of California, Santa Barbara; more than 28 years of archaeology experience. Contribution: Cultural Resources Review.

Joel Kloth, 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.

Isaac Leyva, 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, and Water Quality Assessment.

Karl J. Mikel, Senior Transportation Engineer. M.S., Civil/Environmental Engineering, California Polytechnic State University, San Luis Obispo; B.S., 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.

Consultant Staff—ICF Staff

Mario Anaya, 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.

Jennifer Andersen, 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.

Will Herron, Environmental Planner. B.A., International Relations, University of Southern California; 3 years of experience in environmental planning. Contribution: Preliminary preparation of the Initial Study.

Andrew Johnson, Environmental Planner. M.A., Public Policy, University of Southern California; B.A., Business Administration, Pepperdine University. Contribution: Preliminary preparation of the Initial Study.

Vincent Tong, 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, California 93434

City of Guadalupe Building and Planning Office
918 Obispo Street
Guadalupe, California 93434

Nipomo Library
918 West Tefft Street
Nipomo, California 93444

San Luis Obispo County Department of Planning and Building
976 Osos Street, Suite 200
San Luis Obispo, California 93401

Santa Barbara County Planning Office
123 East Anapamu Street, 2nd Floor
Santa Barbara, California 93101

U.S. Fish and Wildlife Service – Ventura Office
2493 Portola Road, Suite B
Ventura, California 93003

U.S. Army Corps of Engineers District, Los Angeles
915 Wilshire Boulevard
Los Angeles, California 90017

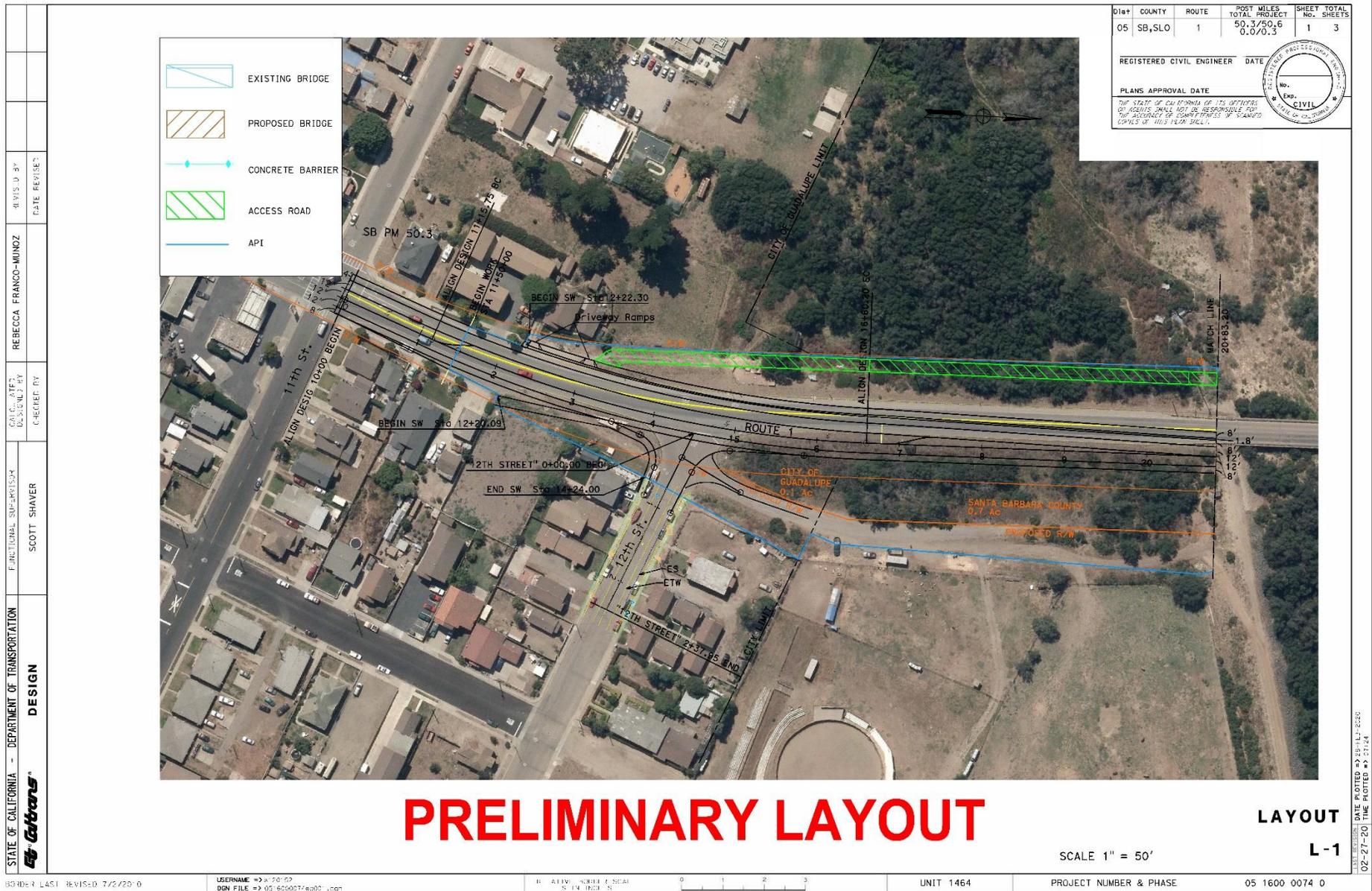
California Department of Fish and Wildlife – South Coast Region
3883 Ruffin Road
San Diego, California 92123

California Department of Fish and Wildlife – Central Region
1234 East Shaw Avenue
Fresno, California 93710

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 100
San Luis Obispo, California 93401

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Appendix A Preliminary Project Layout Map



Appendix A • Preliminary Project Layout Map

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 ON ITS OWNERSHIP OF RECORDS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS DRAWING.



PRELIMINARY LAYOUT

LAYOUT
L-2

SCALE 1" = 50'

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DDN FILE => 051460507-wc902.dgn

REF: ACTIVE BORDER SCALE IS IN INCHES



UNIT 1464

PROJECT NUMBER & PHASE

0516000074

U.S. NATIONAL DATE PLOTTED => 05-FEB-2002
02-27-20 TIME PLOTTED => 08:17:4

Appendix A • Preliminary Project Layout Map

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB,SLO	1	50.3/50.6 0.0/0.3	3	3

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENCIES SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: SCOTT SHAVER
 CHECKED BY: REBECCA FRANCO-MUNOZ
 REVISIONS: REBECCA FRANCO-MUNOZ
 DATE: REV 5/10



PRELIMINARY LAYOUT

LAYOUT
 L-3

SCALE 1" = 50'

BORDER LAST REVISED 7/2/2010

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UNIT 1464

PROJECT NUMBER & PHASE

0516000074

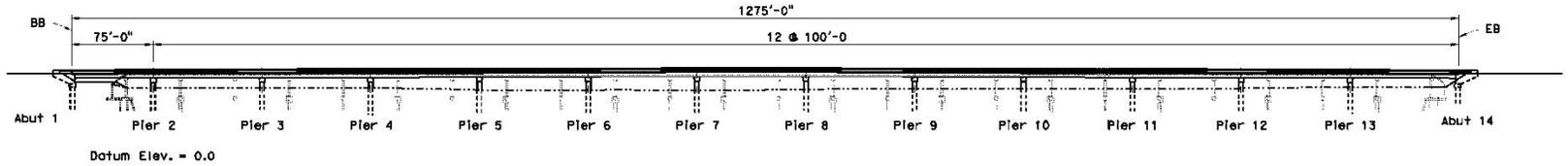
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 DATE PLOTTED => 08/05

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Appendix B Preliminary Design of Build Alternative (Alternative 2)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

DIST	COUNTY	ROUTE	POST MILE
05	SLO	1	-



Risks/Assumptions:

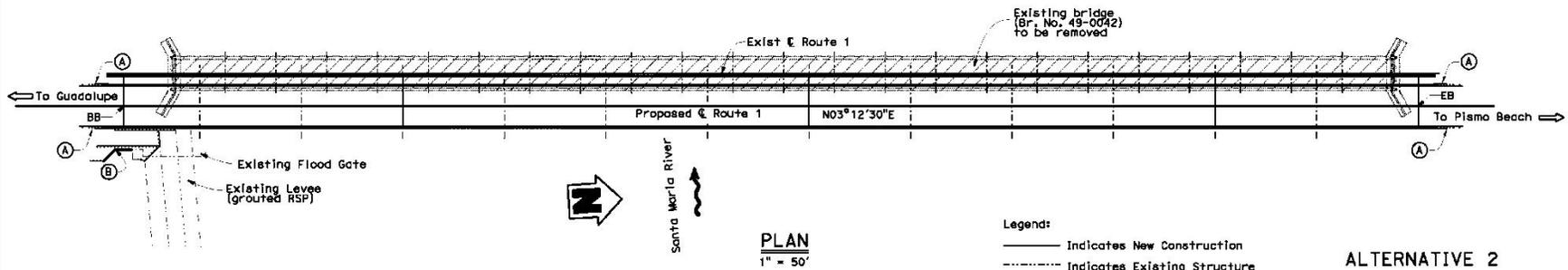
1. Vehicular traffic will pass through construction site. Stage construction will be required.
2. Proposed Route 101 alignment assumed parallel to existing. Profile and stationing not provided.
3. Bottom of existing girder elevation assumed adequate for hydraulic conditions.
4. Beginning of bridge moved 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.

ELEVATION
1" = 50'

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 TRD, 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

Appendix B • Preliminary Design of Build Alternative (Alternative 2)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
et-Corrans
 06-DESIGN
 FUNCTIONAL SUPERVISOR: SCOTT SHAWER
 ENGINEER BY: SCOTT SHAWER
 CHECKED BY: REBECCA MUNOZ
 DESIGNED BY: SCOTT SHAWER
 REVISIONS BY: SAH, REVIS-D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB,SLO	1	50.3/50.6 0.0/0.3	2	XX

DESIGN DESIGNATION

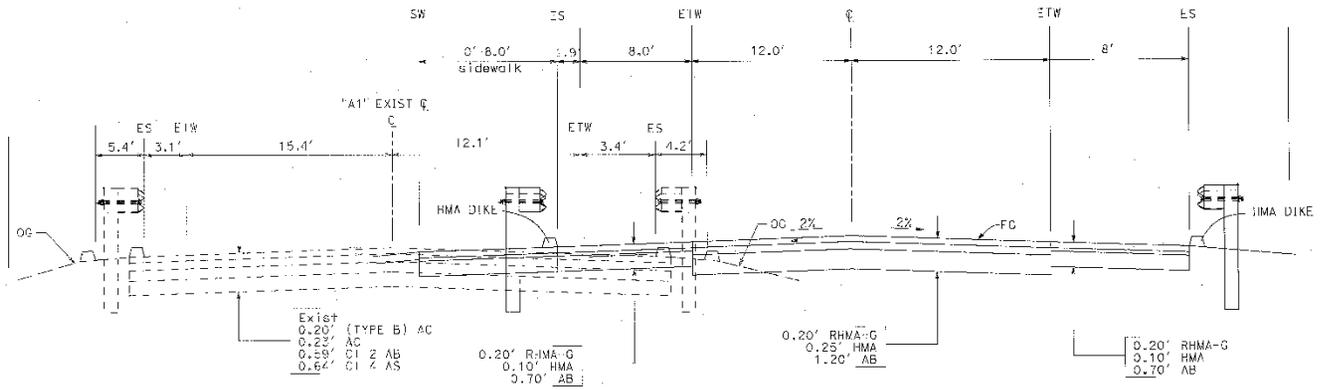
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ADT 2017	6,129	DIV 2017	555	-	7%
ADT 2027	6,497	DHV 2027	765	V	65 mph/35 mph

PAVEMENT CLIMATE REGION:
CENTRAL COAST

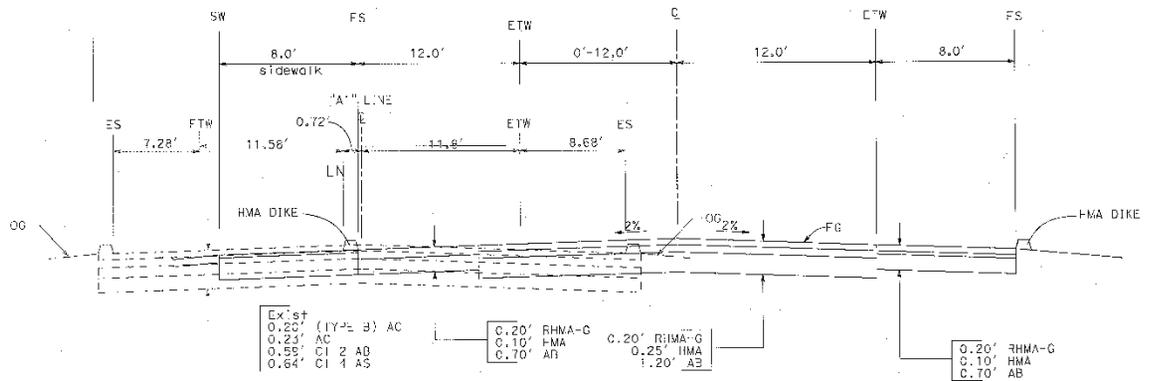
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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Sta 33+59.19 to Sta 45+52.83
ROUTE 1



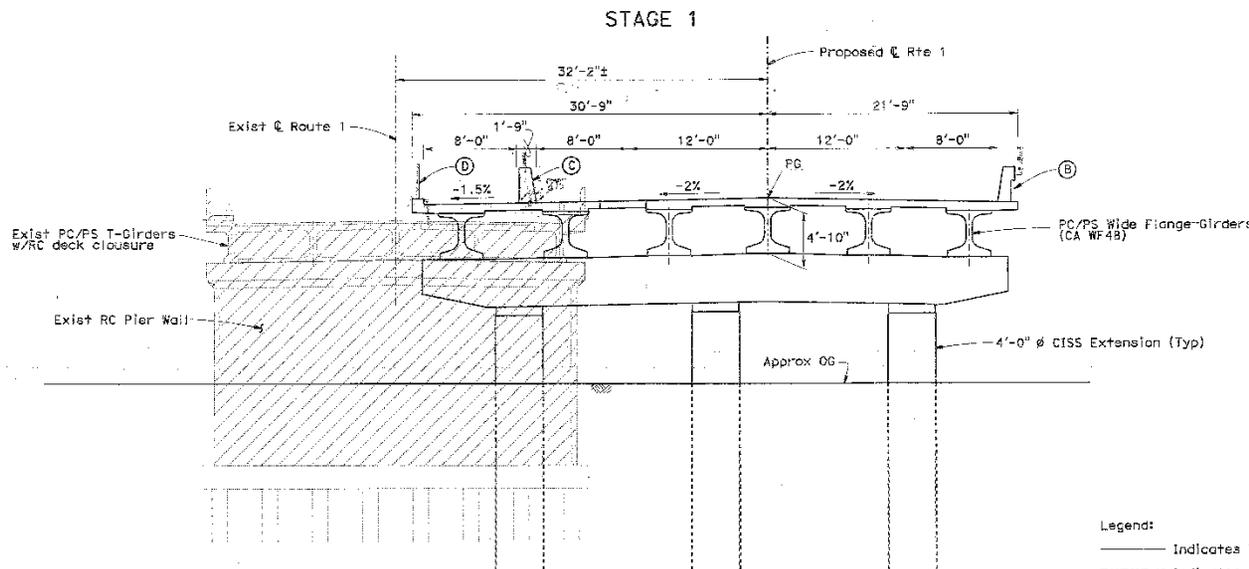
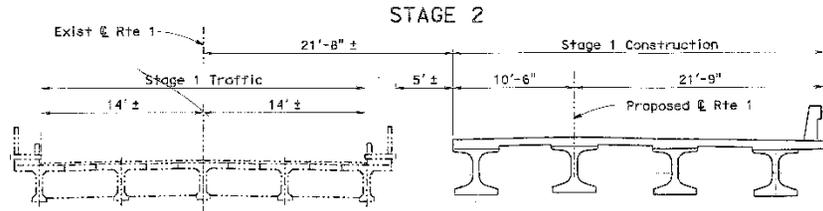
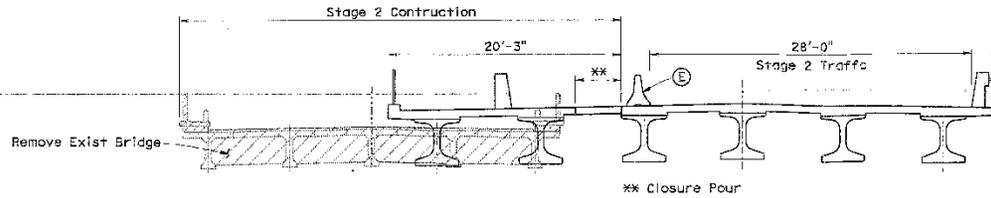
Sta 11+25.21 TO Sta 20+83.20
ROUTE 1

TYPICAL CROSS SECTIONS
 NO SCALE
X-1

Appendix B • Preliminary Design of Build Alternative (Alternative 2)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF STRUCTURES

DIST	COUNTY	ROUTE	POST MILE
05	SLO	1	-



- Notes:
- (B) Concrete Barrier Type 736 w/Bicycle Railing
 - (C) Concrete 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

TYPICAL SECTION
1" = 5'

Sta 20+83.20 to Sta 33+59.19

INCOMPLETE PLAN FOR DESIGN STUDY PRINTED DATE: 1-08-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: 051600074
CONTRACT No.: 05-1H440K	

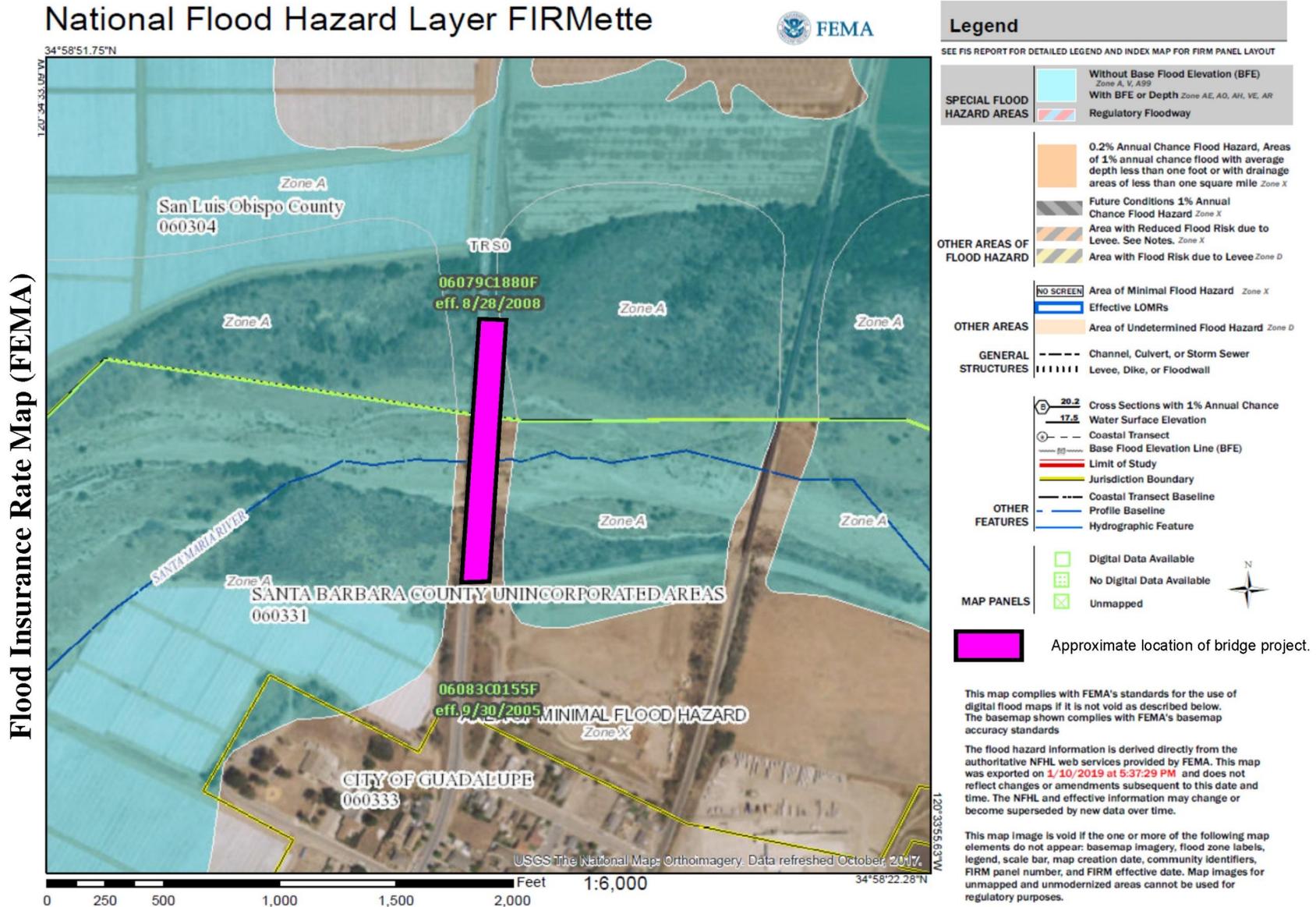
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FILE # 05-1H440K_0506074.dgn

DATE PLOTTED: 03/06/17 10:54 AM

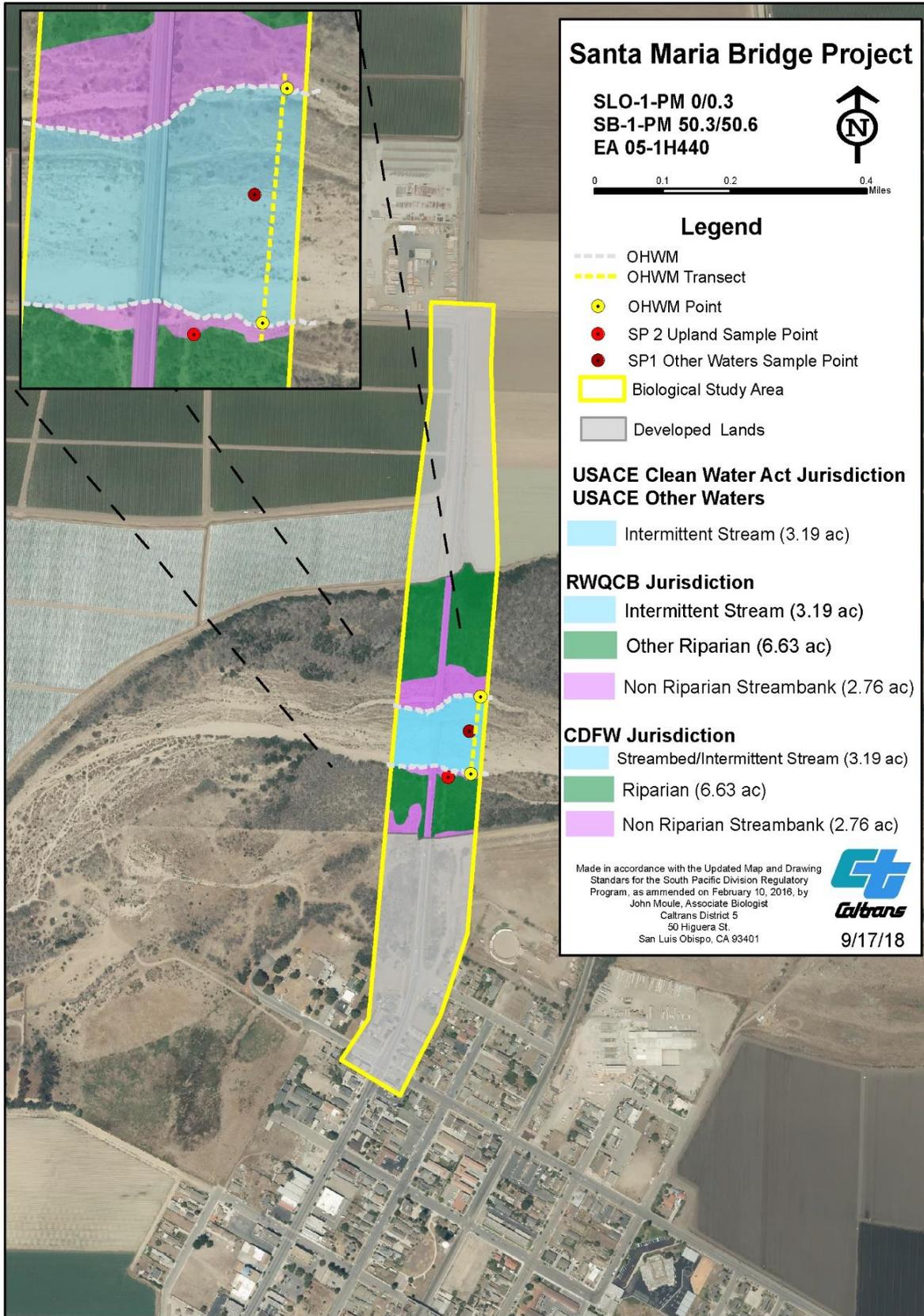
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Appendix C FEMA Flood Insurance Rate Map (FIRM)



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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.

A handwritten signature in blue ink, appearing to read 'Toks Omishakin'.

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) will 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.

Farmland (Section 2.1.1)

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

- 1) The project will limit the amount of right-of-way that is acquired from nearby farmland properties; it will acquire only right-of-way that is necessary for project completion.
- 2) To the extent possible, construction-related storage, staging, and access will avoid properties that are currently involved in agricultural activities or properties that are identified as prime farmland.
- 3) Infill materials that will be used in the project will not be obtained from borrow sites that are made up of prime farmland.
- 4) Areas next to farmland properties that are disturbed during construction will be re-stabilized using native vegetation and soils that are clear of invasive plant species at the end of construction. Soil amendments, if used, must comply with the requirements of the California Food and Agricultural Code. Soil amendments must not contain paint, petroleum products, pesticides, or any other chemical residues that are 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 nearby 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 into 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) Before starting utility relocation activities, coordination with utility users will be required to inform them 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 that is 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 implemented and will allow emergency service vehicles to access the project site during construction to minimize response delays.

Traffic and Transportation/Pedestrian and Bicycle Facilities (Section 2.1.3)

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

- 1) Traffic control will be used to ensure that the public can continue to access State Route 1 during project construction.
- 2) The project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions to address potential traffic issues that will result from project construction, and to provide potential traffic management strategies during construction.

Visual/Aesthetics (Section 2.1.4)

The project will implement the following avoidance and minimization measures to ensure that it is consistent with the aesthetic and visual resource protection goals along State Route 1:

- 1) The type and appearance of all new bridge rails, bicycle railing, and pedestrian railing will be determined in consultation with the City of Guadalupe. Open-type bridge railing and pathway railing will be considered as well.
- 2) All existing overhead utilities that are next 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 something similar to discourage graffiti.
- 4) Preserve as much existing vegetation as possible. Prescriptive clearing, grubbing, and grading techniques that will save the most existing vegetation should be used.
- 5) Revegetate all areas disturbed by the project with appropriate native plant species.
- 6) Following construction, re-grade and recontour 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 that deal with the chance discovery of previously unknown cultural materials or human remains during project construction:

- 1) If cultural materials are discovered during construction, all earth-moving activities within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- 2) If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities will stop in any area or nearby area suspected to overlie remains, and the county coroner should be contacted. If the coroner thinks the remains are Native American, he or she will notify the Native American Heritage Commission, who, per California Public Resources Code Section 5097.98, will then notify the Most Likely Descendent. At this time, the person who discovered 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.

Additional provisions of California Public Resources Code Section 5097.98 must be followed as applicable.

Water Quality and Stormwater Runoff (Section 2.2.1)

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

The following measures will be implemented to minimize impacts on water quality and stormwater runoff for this project:

- 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, which is typically from June to October, and only if there is no water flow. When work is near streams, erosion and sediment controls will be implemented to keep sediment out of the stream channel.
- 3) A Stormwater Pollution Prevention Plan will be prepared before ground disturbance activities and will be implemented during construction as required per Caltrans' standard practices.
- 4) The project will isolate equipment staging and spoil/material storage areas away from the river channel using appropriate stormwater control barriers.
- 5) When in-channel work is required, the project will stabilize access routes to the river to reduce tracking 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 Practices will be implemented:
 - a) Install appropriate fencing to control sediment. Fencing should be installed only where sediment-laden water can pond to allow the sediment to settle out.
 - b) Install fiber rolls along the slope contour above the high-water level to intercept runoff, reduce flow velocity, release the runoff as sheet flow, and remove sediment from the runoff. In a stream environment, fiber rolls should be used 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 design standards, as provided in the Highway Design Manual, to reduce the potential of failure due to an earthquake, liquefaction, erosion, or other geological hazards.

Natural Communities (Section 2.3.1)

The proposed measures will be implemented to avoid and minimize potential project impacts to natural communities. Also, measures described in Section 2.3.2, Wetlands and Other Waters, are expected to avoid and minimize potential impacts on natural communities caused by project activities.

- 1) Temporary environmental sensitive area fencing and/or flagging will be installed on the perimeter of the project area to prevent potential impacts on natural communities outside of the project area.
- 2) At the end of project construction, all areas temporarily impacted by project activities will be revegetated with native seed mix, with erosion control seedings along the roadside and replacement tree plantings in the riparian zone.
- 3) All areas temporarily impacted by project activities will be returned to their 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) Before any ground-disturbing activities, temporary environmentally sensitive area fencing and/or flagging will be installed around wetland resources within the project limits to ensure that these areas are not impacted by project activities. The location of environmentally sensitive area fencing and/or flagging will be included on design plans and delineated in the field before construction starts.
- 2) During construction, all project-related hazardous material spills within the project site will be cleaned up immediately. The contractor will keep spill prevention and cleanup materials readily accessible onsite at all times during construction.
- 3) During construction, cleaning and refueling 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, 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) Any trees removed will be replaced at a minimum of 1 to 1 ratio. Final replacement ratio may be higher, up to 3 to 1, based on permit conditions. Any trees removed will be replaced with native trees that are appropriate for the region and habitat. Additional tree replacement criteria may be adopted to meet project permit conditions.
- 6) Vegetated streambanks disturbed by project activities will be revegetated with a native seed mix consisting of regional plant community type. However, they will not be monitored for success because river flows could potentially disturb the streambanks as part of the natural geomorphic process that is typical of this type of river system.

Animal Species (Section 2.3.4)

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

- 1) Before starting stream dewatering, Caltrans staff will conduct a worker environmental training program, which will describe 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 that are 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 use the new or existing Santa Maria River Bridge. The hours of work restriction will be from 1 hour after sunset to 1 hour before sunrise, which will vary based on the time of year.
- 3) Specific day and night artificial bat roosting habitat and/or structures will be added to the new bridge structure. Day roosting habitat such as Oregon wedges and small crevices that are just big enough for roosting bats will be provided on the new bridge. Also, wooden bat boxes will be installed underneath the northern span of the new bridge. These bat boxes will provide a windbreak and thermal buffer for bats roosting at night.

American Badger

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

- 4) A pre-construction survey will be conducted for the American badger no less than 14 days and no more than 30 days before starting construction or project-related activities that are likely to impact the species. The survey will identify American badger habitat features on the project site, evaluate use by American badgers and, if possible, assess the potential impacts on the American badger by proposed activities. 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 three days to determine the current use. If no American badger activity is seen during this period, the dens will be destroyed immediately to prevent future use. If American badger activity is seen at the dens during this period, the dens will be monitored for at least five 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 dens are determined to be unoccupied will they be excavated under the direction of a biologist.
- 5) If the pre-construction survey reveals an active den or new information regarding American badger presence within the area of potential impact, Caltrans will notify the California Department of Fish and Wildlife.
- 6) Before groundbreaking, a qualified biologist will conduct an environmental education and training session for all construction personnel. Before, 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 restricted within the project site.
- 8) A litter control program will be established at each project site. No canine or feline pets or firearms—except for those associated with law enforcement officers and security personnel—will be allowed on construction sites to avoid harassing, killing, or injuring American badgers.
- 9) Maintenance and construction excavations that are more 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 American badgers.

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) A Caltrans biologist will monitor initial excavation and vegetation removal.
- 11) Coast horned lizards, Northern California legless lizards, or any species (excluding state or federally listed species) that are discovered during monitoring will be captured by a Caltrans biologist and relocated to suitable habitat that is 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) Pre-construction surveys will be conducted within 14 days of construction. Caltrans biologists will place plywood boards around the bridge to attract Northern California legless lizards. If Northern California legless lizards are found during these checks, they will be relocated outside the construction area.

Nesting Birds

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

- 13) To avoid potential impacts on nesting birds, vegetation removal for the project will be scheduled to occur outside of the nesting bird season, which is typically from September 1 to January 31.
- 14) If vegetation removal or other construction activities are proposed to occur during the nesting bird season (February 1 to August 31), a Caltrans biologist will conduct a nesting bird survey no more than three days before construction.
- 15) During construction, active bird nests will not be disturbed, and eggs or young birds of native migratory birds that are 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. A qualified biologist will establish environmentally sensitive areas. Depending on the sensitivity of the species in question, work in environmentally sensitive area zones will occur only under the supervision of a biological monitor until young birds have fledged (permanently left the nest) or a qualified biologist has determined that nesting activity has otherwise stopped.
- 16) Trees that must be removed will be noted on design plans. Before starting any ground-disturbing activities, high visibility fencing, or flagging will be installed around the dripline of trees within the 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. The following avoidance, minimization, and/or mitigation measures will be implemented to protect special-status species from project-related impacts.

La Graciosa Thistle Federally Designated Critical Habitat

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

- 1) To preserve as much seed bank 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 the 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 to Southern California steelhead critical habitat:

- 3) Before construction starts, 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 from 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 expected, but if they are required, they 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) Before construction, the contractor will prepare and sign a Water Pollution Control Plan or a Stormwater Pollution Prevention Plan that complies with the Caltrans Stormwater Quality Handbook (Caltrans 2017). Provisions of this plan will be implemented during and after construction to avoid and minimize erosion and stormwater pollution in and near the work area.
- 7) During construction, all project-related hazardous material spills within the project site will be cleaned up immediately. The contractor will keep spill prevention and cleanup materials readily accessible onsite at all times during construction.
- 8) Erosion control measures will be implemented during construction. Silt fencing, fiber rolls, and barriers will be installed at the project site, jurisdictional waters, and riparian habitat.
- 9) During construction, cleaning and refueling 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 stormwater 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 the project limits will be removed, and the affected areas will be returned to pre-construction elevations.

Southern and South-Central Coast California Steelhead

Avoidance and minimization measures for Southern California Coast and South-Central Coast 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 the Southern California Coast and South-Central Coast California steelhead 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 discussed in Section 2.3.4, Animal Species, 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 stop while Caltrans coordinates with applicable regulatory agencies to determine if additional measures are necessary.

California Red-Legged Frog

Avoidance and minimization measures discussed in Section 2.3.2, Wetlands and Other Waters, 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 activities will not start until written approval is received from the U.S. Fish and Wildlife Service stating that the biologist is qualified to conduct the work.
- 16) A U.S. Fish and Wildlife Service-approved biologist will survey the project area for no more than 48 hours before work activities start. If any California red-legged frogs are found and are likely to be injured or killed by work activities, the approved biologist will be allowed enough time to move them from the site before work starts. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs to a nearby location that contains suitable habitat that will not be affected by project activities. 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 before the capture of any California red-legged frogs.
- 17) Before project activities start, 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 worksite 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 identifying 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 will be affected in a manner that was not expected by Caltrans and the U.S. Fish and Wildlife Service during a review of the proposed action, they will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring

all actions that are causing these effects to be stopped. 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 worksite, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.
- 20) Without the U.S. Fish and Wildlife Service's permission, all refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and not in a location where a spill will drain directly toward aquatic habitat. The monitor will ensure that habitat is not contaminated during such operations. Before work starts, Caltrans will ensure that a plan is in place for a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.
- 21) Habitat contours will be returned to a natural configuration at the end of project activities. This measure will be implemented in all areas that are disturbed by project activities, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible, or if changing the original contours will 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 complete 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 when impacts on the California red-legged frog will be minimal. For example, work that will affect large pools, which may support breeding will be avoided to the maximum degree practicable during the breeding season (November through May). Isolated pools that are important to maintaining California red-legged frogs throughout the driest portions of the year will be avoided to the maximum degree practicable during the late summer and early fall. During project planning, habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service will be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.
- 24) To control sedimentation during and after project completion, Caltrans will implement Best Management Practices issued under the authority of the Clean Water Act. If Best Management Practices are ineffective, Caltrans will attempt to fix the situation immediately with the U.S. Fish and Wildlife Service.

- 25) If a worksite must be temporarily dewatered by pumping, intakes will be screened with wire mesh with openings no 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. After construction activities are completed, any diversions or barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate. Changing the streambed will be minimized to the maximum extent possible. Any imported material will be removed from the streambed after the project is completed.
- 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 the American bullfrog (*Rana catesbeiana*), signal crayfish (*Pacifastacus leniusculus*), red swamp crayfish (*Procambarus clarkii*), 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 that 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 transported between worksites 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 and exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas that are disturbed by project activities, 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 main method for controlling invasive and exotic plants. However, if it is determined that using herbicides is the only feasible method for controlling invasive plants at a specific project site, Caltrans 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 before herbicides are used. If California red-legged frogs

- are found, they will be relocated to suitable habitat that is far enough from the project area that no direct contact with herbicides will occur.
- c. Giant reed and other invasive plants will be cut, 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 used on native vegetation.
 - f. Herbicides will not be used on or near open water surfaces—no closer than 60 feet from open water.
 - g. Foliar applications of herbicides will not occur when wind speeds are more than 3 miles per hour.
 - h. No herbicides will be used within 24 hours of forecasted rain.
 - i. Qualified Caltrans staff members or contractors will apply all herbicides to minimize overspray and to ensure that all applications are made in accordance with the label recommendations and required and reasonable safety measures. A safe dye will be added to the mixture to visually indicate treated sites. Using 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 will not drain directly toward aquatic habitat. Before work starts, 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 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 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.

Construction Impacts (Section 2.4)

The following avoidance and minimization measures will be implemented to reduce potential impacts caused by project construction activities.

Parks and Recreational Facilities

- 1) The avoidance and minimization measures that are required to address temporary construction-related impacts on air quality and noise will also be applicable to minimizing potential construction-related impacts on parks and recreational facilities.

Air Quality

- 2) The Caltrans Standard Specifications section that pertains to dust control and dust palliative application is required for all construction contracts and will effectively reduce and control construction-emission impacts.
- 3) The provisions of Caltrans Standard Specifications Section 10-5 Dust Control, and Section 14-9 Air Pollution Control, require the contractor to comply with all rules, ordinances, and regulations of the California Air Resources Board and San Luis Obispo County Air Pollution Control District.
- 4) The project-level Stormwater 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, dewatering excavated areas, and grading areas.
- 5) A Debris Containment and Collection Plan will be included in the project's standard special provisions to effectively capture and collect all demolition debris and waste materials to prevent any materials from entering the creek channel or migrating offsite during windy conditions. All stockpiled construction debris should at least be covered daily or be hauled off as soon as possible.
- 6) If inspections during construction determine 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 will be conducted in accordance with Caltrans' Standard Specifications Section 14.8-02.
- 8) The following measures will be included to minimize temporary project-related noise impacts:
 - a. Each internal combustion engine that is used on the job will be equipped with a muffler that is recommended by the manufacturer. No internal combustion engine will be operated without an appropriate muffler.
 - b. Notify surrounding homes in advance of the construction schedule when unavoidable construction noise and upcoming construction activities that are likely to produce an adverse noise environment are expected. This notice will be given two weeks in advance. The notice

will include the dates and duration of proposed construction activities and will be published in local news media. The District 5 Public Affairs department will post notices of the proposed construction with project contact information and potential community impacts after receiving them from the resident engineer.

- c. Limit all phases of construction to acceptable hours, Monday through Friday. Night work is not anticipated for project completion. If night work is required, additional coordination and measures will be implemented to minimize nighttime noise impacts.
- d. Shield especially loud pieces of stationary construction equipment.
- e. Locate portable generators, air compressors, etc., away from sensitive noise receptors.
- f. Limit grouping major pieces of operating equipment in one area to the greatest extent feasible.
- g. Place heavily trafficked areas (such as the maintenance yard) and construction-oriented operations in locations that will be the least disruptive to surrounding sensitive noise receptors.
- h. Ensure that all equipment items, such as mufflers, engine covers, and engine vibration isolators, have the manufacturers' recommended noise abatement measures intact and operational. Internal combustion engines used for the job will be equipped with a muffler or baffle that is recommended by the manufacturer.
- i. Appropriate project staff contacts will be provided to residents, and Caltrans district noise staff will be consulted if complaints are received during the construction process.

Emergency Services

- 9) 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 established emergency response plans.
- 10) The project will use temporary traffic control and temporary traffic management during construction to ensure that emergency access through the project site and on State Route 1 is maintained.

Traffic and Transportation

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

Community Character

- 12) Where feasible, the project will incorporate aesthetic treatments and/or design features that may be required as part of any planned community identifiers. Caltrans will also coordinate with Resilience Guadalupe and Amigos de Leroy Park Committee to consider appropriate community character aesthetics.

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Appendix G Required Consultation and Concurrence Documentation

This appendix contains the required consultation and concurrence documentation obtained for the project. Documentations have been retyped for readability with acronyms, abbreviations and any original grammatical or typographical errors. Contents of documentation relevant to the project are presented.

Federal Highway Administration

Air Quality Conformity Determination August 20, 2020

Transportation Air Quality Conformity Findings Checklist (Revised April 2019)

Project Name: Santa Maria River Bridge Replacement

Dist-Co-Rte-PM: 05-SLO-001-PM 0.0/0.3 and 05-SB-001-PM
50.3/50.6

EA: 05-1H440

Federal-Aid No: 0516000074

Document Type: Environmental Assessment

Step 1. *Is the project located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide (CO), PM2.5, or PM10 per EPA's Green Book listing of non-attainment areas?*

If no, go to Step 17. Transportation conformity does not apply to the project.

If yes, go to Step 2.

Project Determination: No

Step 17. STOP as all air quality conformity requirements have been met.

Signed: Rajvi Koradia

Title: Environmental Engineer

Date 08/20/2020

United States Fish and Wildlife Service

Confirmation Letter for Biological Opinion and Programmatic Biological Opinion,
February 20, 2020

Biological Opinion on Replacement of the Santa Maria River Bridge on State
Route 1 between Santa Barbara and San Luis Obispo Counties, California

Dear Ms. Holmes.

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the California Department of Transportation's (Caltrans) proposed replacement of the Santa Maria River Bridge on State Route 1 (project) between Santa Barbara and San Luis Obispo Counties, California and its effects on the federally threatened California red-legged frog (*Rana draytonii*) and designated critical habitat of the endangered La Graciosa thistle (*Cirsium loncholepis*), in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.). We received your October 9, 2019, request for formal consultation on October 10, 2019.

We have based this biological opinion on information that accompanied your October 9, 2019, request for consultation including the natural environment study (Caltrans 2019). These documents, and others relating to the consultation, are located at the Ventura Fish and Wildlife Office.

The Service published a final rule on August 27, 2019 (84 Federal Register 44976), that changed the definitions of some of the terms that we use in section 7(a)(2) consultations. The changes became effective on October 28, 2019. We developed this biological opinion in accordance with the changes in the final rule.

California red-legged frog

Under the administration of the Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (\$-8-10-F-58) (PBO) (Service 2011), you are required to notify us of project activities that may adversely affect the California red-legged frog. Caltrans has assumed the Federal Highway Administration's (FHWA) responsibilities under the Act for this action in accordance with Section 1313, Surface Transportation Project Delivery Program, of the Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012, as described in the National Environmental Policy Act assignment Memorandum of Understanding between FHWA and Caltrans (effective October 1, 2012) and codified in 23 U.S.C. 327. You have determined that the proposed project may affect, and is likely to adversely affect the California red-legged frog and requested that such effects be addressed via the PBO. This project is not located within designated critical habitat

for the species. Caltrans will implement all minimization measures described on pages 7 through 12 of the PBO.

The proposed project is discussed in detail in the project's natural environment study (Caltrans 2019) and below in the project description. Summarized briefly, Caltrans proposes to replace the existing State Route 1 Bridge over the Santa Maria River between Santa Barbara and San Luis Obispo Counties.

The proposed project, as described in the natural environment study (Caltrans 2019), satisfies the four criteria outlined in the PBO for projects that are likely to result in adverse effects to the California red-legged frog but would not affect the long-term viability of the population in the action area. The effects of projects of this nature have been analyzed in the PBO under the Effects of the Action section (pages 29-34). Accordingly, we have determined that the proposed project is consistent with and appropriate for inclusion under the PBO. Caltrans must implement all avoidance and minimization measures, reasonable and prudent measures, and terms and conditions of the PBO. This concludes consultation on the effects of the project on the California red-legged frog, and we do not discuss the species for the remainder of this document.

Consultation History

We received your October 9, 2019, request for consultation on the project in our office on October 10, 2019. Dou-Shuan Yang of my staff discussed the project with Stephanie Herbert of your staff on a phone call on October 22, 2019. That same day, Caltrans sent an electronic mail message to the Service indicating that Caltrans now believed that the proposed project may affect, and was likely to adversely affect designated critical habitat of the La Graciosa Thistle (S. Herbert, California Department of Transportation, in litt. 2019). The Service initiated consultation on the project the same day.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

Caltrans describes the project in detail in Chapter 1 of the project's natural environment study (Caltrans 2019). Briefly, the project would demolish the existing bridge and install a new bridge supported by new concrete piles in the Santa Maria River channel. The project would also include realignment and repaving of roads in the area as well as installation of guardrails and other barriers. Caltrans estimates that the bridge replacement would reduce the physical footprint of the bridge piers within the channel by approximately 109 square feet (from 602 to 453 square feet). In total, the project would temporarily impact 7.469 acres and permanently impact

1.392 acres. Caltrans would work in the river channel during two consecutive dry seasons (May to October) when the river is not flowing and complete work outside the river channel during the intervening wet season (November to April).

Caltrans would avoid, minimize, and offset impacts from project activities by implementing the following measures summarized from Chapter 4 of the natural environment study (Caltrans2019):

1. Caltrans will offset impacts to vegetation and natural habitats by preparing and implementing a conservation and monitoring plan that will include seeding with an appropriate native seed mix.
2. Caltrans will install temporary fencing around jurisdictional resources and all work limits. Caltrans will delineate these barriers in the field and include these barriers on design plans.
3. Caltrans will clean up all project-related hazardous materials spills immediately. Caltrans will keep spill response materials on-site at all times during construction.
4. Caltrans will implement erosion control measures such as installing silt fencing, fiber rolls, and other barriers between the project site and jurisdictional areas.
5. Caltrans will clean and refuel equipment and vehicles within a designated staging area, which is either at least 100 feet from jurisdictional areas or surrounded by barriers to prevent contamination of jurisdictional areas.
6. Caltrans will restore contours of jurisdictional areas to their original condition after construction is completed.
7. Caltrans will preserve the existing seedbank by stockpiling the first 6 inches of top soil of areas within the Santa Maria River and associated riparian zone and returning this soil to the area following project construction.
8. Caltrans will use a qualified biologist to conduct a worker environmental training program that will include a description of protected species and habitats, the avoidance and minimization measures for these species and habitats, and the proximity of these species and habitats to the project site.

ANALYTICAL FRAMEWORK FOR THE ADVERSE MODIFICATION DETERMINATION

Section 7(a)(2) of the Act requires that Federal agencies insure that any action they authorize, fund, or carry out is not likely to destroy or to adversely modify designated critical habitat. A final rule revising the regulatory definition of “destruction or adverse modification” was published

on February 11, 2016 (81 FR 7214). The final rule became effective on March 14, 2016. The revised definition states:

“Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.”

The destruction or adverse modification analysis in this biological opinion relies on four components: (1) the Status of Critical Habitat, which describes the rangewide condition of the critical habitat for the La Graciosa thistle, the factors responsible for that condition, and the intended function of critical habitat overall; (2) the Environmental Baseline, which evaluates the condition of the critical habitat in the action area, the factors responsible for that condition, and the recovery role of the critical habitat in the action area; (3) the Effects of the Action, which are all consequences to critical habitat caused by the proposed action that are reasonably certain to occur; and (4) Cumulative Effects, which evaluate the effects of future non-Federal activities in the action area on critical habitat that are reasonably certain to occur.

For the section 7(a)(2) determination regarding destruction or adverse modification, the Service begins by evaluating the effects of the proposed Federal action and the cumulative effects. The Service then examines those effects against the condition of all critical habitat described in the listing designation to determine if the proposed action’s effects are likely to appreciably diminish the value of critical habitat as a whole for the conservation of the species.

STATUS OF THE CRITICAL HABITAT

A final rule published on February 11, 2016 (81 FR 7414), removed the phrase “primary constituent elements” (PCEs) from the regulations for designating critical habitat (50 CFR 424.12). Instead, new designations will focus on “physical and biological features” (PBFs). Existing critical habitat rules may still define PCEs; however, the two terms (PBFs and PCEs) may be used interchangeably as they are considered synonymous. In cases where an existing critical habitat rule numbers PCEs specifically (e.g., PCE-1, PCE #1), we will use the terms as defined in the existing critical habitat designation to avoid confusion.

The Service designated critical habitat for La Graciosa thistle on approximately 41,089 acres of land in San Luis Obispo and Santa Barbara Counties, California on March 17, 2004 (69 FR 12553). In March 2005, the Homebuilders Association of Northern California, et cii., filed suit against

the Service (CV-01 3630LKK-JFM) challenging final critical habitat rules for several species, including La Graciosa thistle. In March 2006, a settlement was reached that required the Service to re-evaluate five final critical habitat designations, including critical habitat designated for La Graciosa thistle. The Service published a revised proposed critical habitat designation for La Graciosa thistle on August 6, 2008 (73 FR 45806). On November 3, 2009, the Service published a final rule which designated 24,103 acres of habitat in San Luis Obispo and Santa Barbara Counties as critical habitat for La Graciosa thistle (74 FR 56978). The final revised designation constituted a reduction of approximately 16,986 acres from the 2004 designation of critical habitat for La Graciosa thistle.

Dune Complex, and along the Santa Maria River, Orcutt Creek, San Antonio Creek, and Santa Ynez River drainages that is not confined by barriers or wind-blocks such as large manmade structures, tree rows, or windbreaks (allowing uninterrupted winds across these areas).

ENVIRONMENTAL BASELINE

The implementing regulations for section 7(a)(2) (50 CFR 402.02) define the environmental baseline as “the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify are part of the environmental baseline.”

Action Area

The implementing regulations for section 7(a)(2) of the Act (50 CFR 402.02) define the “action area” as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. The action area for this biological opinion is 11.46-acre area of potential impacts identified in Figure 2 of the project’s natural environment study (Caltrans 2019).

Habitat Characteristics and Existing Characteristics of the Action Area

The action area is partially developed with the existing State Route 1 Bridge and associated road shoulders spanning the Santa Maria River. The Santa Maria River channel within the action area is littered with trash

and debris from a homeless encampment currently located under the bridge. Natural areas in the action area contain mule fat and willow thickets.

Previous Consultations in the Action Area

We are unaware of any previous consultations in the action area

Condition (Status) of Critical Habitat in the Action Area

Approximately 4.31 acres of the action area to the west of the existing Santa Maria Bridge is within the 13,226-acre Unit 2 (Santa Maria River-Orcutt Creek) of designated critical habitat for the La Graciosa thistle. The area of critical habitat within the action area contains all four PBFs of designated critical habitat for the La Graciosa thistle. The final critical habitat rule indicates The Service identified six units that contain the necessary features essential to the conservation of La Graciosa thistle. These six units are located near the Pacific Coast in southwestern San Luis Obispo and northwestern Santa Barbara Counties. The northernmost unit consists of the dune system from Pismo Beach to the Santa Maria River in San Luis Obispo County. The second unit consists of the lower reaches of the Santa Maria River in San Luis Obispo and Santa Barbara Counties and of Orcutt Creek in Santa Barbara County. The remaining units are all within Santa Barbara County: one at Canada de las Flores, one along the lower reaches of San Antonio Creek, one on San Antonio Terrace, and one along portions of the lower reaches of the Santa Ynez River.

We consider the PBFs essential to the conservation of the species that may require special management considerations or protection when designating critical habitat for a species. The PBFs generally include, but are not limited to: (1) space for individual and population growth and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, or rearing (or development) of offspring; and (5) habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species. The PBFs of the La Graciosa thistle's critical habitat are summarized below:

(1) Mesic areas associated with: (a) Margins of dune swales, dune lakes, marshes, and estuaries that are associated with dynamic (changing) dune systems including the Santa Maria Valley Dune Complex and Santa Ynez Valley Dune Complex; (b) Margins of dynamic riparian systems including the Santa Maria and Santa Ynez Rivers and Orcutt and San Antonio Creeks; and (c) Freshwater seeps and intermittent streams found in other habitats, including grassland, meadow, coastal scrub, chaparral, and oak woodland. These areas provide space needed for individual and

population growth including sites for germination, reproduction, seed dispersal, seed bank, and pollination;

(2) Associated plant communities including: central dune scrub, coastal dune, coastal scrub, freshwater seep, coastal and valley freshwater marsh and fen, riparian scrub (e.g., mule fat (*Baccharis salicifolia*) scrub, willow (*Salix* spp.) scrub), oak woodland, intermittent streams, and other wetland communities, generally in association with the following species: rush, tule, willow, poison oak, salt grass, coyote brush, and Douglas' baccharis (*Baccharis douglasii*);

(3) Soils with a sandy component, including but not limited to dune sands, Oceano sands, Camarillo sandy loams, riverwash, and sandy alluvial soils; and

(4) Features that allow dispersal and connectivity between populations, particularly: (a) Natural riparian drainages in Santa Maria River, Orcutt Creek, San Antonio Creek, and Santa Ynez River that are not channelized or confined by barriers or dams, such that they have soft bottoms and sides and a natural flood plain (allowing uninterrupted water flows); and (b) Natural aeolian geomorphology in the Santa Maria Dune Complex and Santa Ynez

CONCLUSION

After reviewing the current status of the critical habitat of the La Graciosa thistle, the environmental baseline of critical habitat for the action area, the effects of the proposed project on critical habitat, and the cumulative effects, it is the Service's biological opinion that the project, as proposed, is not likely to result in the destruction or adverse modification of critical habitat of the La Graciosa thistle because:

1. The effects on the PBFs of critical habitat are low, if any;
2. The effects on the conservation value and function of critical habitat are low, if any.

REPORTING REQUIREMENTS

Pursuant to 50 CFR 402.14(i)(3), Caltrans must report the progress of the action and its impact on the species to the Service. Caltrans must submit upon project completion a report containing a list of all listed species observations including locations and dates, a calculation of the number of acres of La Graciosa thistle critical habitat impacted by the project, a copy of the project's conservation and monitoring plan as well as a summary of progress on implementation of this plan, and any issues with the implementation of the project's conservation measures. Caltrans must also provide the Service copies of any subsequent monitoring reports generated for the project's conservation and monitoring program.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. We encourage Caltrans to coordinate with us on a regional conservation plan for listed plant species and their designated critical habitats in the region including the La Graciosa thistle.

The Service requests notification of the implementation of any conservation recommendations so we may be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats.

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (3) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions about this biological opinion, please contact Dou-Shuan Yang of my staff at (805) 677-3302, or by electronic mail at dou-shuanyangfws.gov.

Sincerely,

Stephen P. Henry
Field Supervisor

United States Fish and Wildlife Service

Updated Species List, August 27,2020
Consultation Code: 08EVEN00-2018-SLI-0823
Event Code:08EVEN00-2020-E-01291
Project Name: Santa Maria Bridge Replacement

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

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to “request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area or a proposed action”.

This species list is provided by:

Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
(805) 644-1766

Project Summary

Consultation Code: 08EVEN00-2018-SLI-0823
Event Code: 08EVEN00-2020-E-01291
Project Name: Santa Maria Bridge Replacement
Project Type: Bridge Construction / Maintenance
Project Description: Bridge Replacement Project
Project Location: Approximate location of the project can be viewed in Google Maps:
<https://www.google.com/maps/place/34.97708714013235N120.57085275650026WCounties:San>
Counties: San Luis Obispo, California / Santa Barbara, California

Endangered Species Act Species

There is a total of 19 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

Giant Kangaroo Rat *Dipodomys ingens*

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/6051>

Status: Endangered

Birds

California Clapper Rail *Rallus longirostris obsoletus*

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/4240>

Status: Endangered

Least Bell's Vireo *Vireo bellii pusillus*

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/5945>

Status: Endangered

Marbled Murrelet *Brachyramphus marmoratus*

Population: U.S.A. (CA, OR, WA)

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/4467>

Status: Threatened

Southwestern Willow Flycatcher *Empidonax traillii extimus*

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/6749>

Status: Endangered

Reptiles

Blunt-nosed Leopard Lizard *Gambelia silus*

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/625>

Status: Endangered

Amphibians

California Red-legged Frog *Rana draytonii*

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/2891>

Status: Threatened

California Tiger Salamander *Ambystoma californiense*

Population: U.S.A. (CA - Santa Barbara County)

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/2076>

Status: Endangered

California Tiger Salamander *Ambystoma californiense*

Population: U.S.A. (Central CA DPS)

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/2076>

Status: Threatened

Fishes

Tidewater Goby *Eucyclogobius newberryi*

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/57>

Status: Endangered

Insects

El Segundo Blue Butterfly *Euphilotes battoides allyni*

There is proposed critical habitat for this species. The location of the critical habitat is not available.

Species profile: <https://ecos.fws.gov/ecp/species/3135>

Status: Endangered

Kern Primrose Sphinx Moth *Euproserpinus euterpe*

There is proposed critical habitat for this species. The location of the critical habitat is not available.

Species profile: <https://ecos.fws.gov/ecp/species/7881>

Status: Threatened

Crustaceans

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/498>

Status: Threatened

Flowering Plants

California Jewelflower *Caulanthus californicus*

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/4599>

Status: Endangered

Gambel's Watercress *Rorippa gambelii*

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/4201>

Status: Endangered

La Graciosa Thistle *Cirsium loncholepis*

There is final critical habitat for this species. Your location overlaps the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/6547>

Status: Endangered

Marsh Sandwort *Arenaria paludicola*

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/2229>

Status: Endangered

Salt Marsh Bird's-beak *Cordylanthus maritimus ssp. maritimus*

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/6447>

Status: Endangered

Spreading Navarretia *Navarretia fossalis*

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/1334>

Status: Threatened

Critical Habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

La Graciosa Thistle *Cirsium loncholepis*
<https://ecos.fws.gov/ecp/species/6547#crithab>
Status: Final

National Marine Fisheries Service

Letter of Concurrence, November 14, 2019

Endangered Species Act Section 7(a)(2) Concurrence Letter for the Santa Maria Bridge Replacement at SR-1 in San Luis Obispo and Santa Barbara Counties (EA: 05-1H440_).

Dear Ms. Holmes:

On October 10, 2019, NOAA's National Marine Fisheries Service (NMFS) received the California Department of Transportation's (Caltrans) request for written concurrence that the Santa Maria River Bridge Replacement Project under 23 USC 327(a)(2)(A), is not likely to adversely affect endangered southern California (SC) steelhead (*Oncorhynchus mykiss*) or critical habitat designated for this species under the Endangered Species Act (ESA). This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on October 28, 2019 [84 FR 44976]. This consultation was pending at that time, and we are applying the updated regulations to the consultation. As the preamble to the final rule adopting the regulations noted, "[t]his final rule does not lower or raise the bar on section 7 consultations, and it does not alter what is required or analyzed during a consultation. Instead, it improves clarity and consistency, streamlines consultations, and codifies existing practice." We have reviewed the information and analyses relied upon to complete this letter of concurrence in light of the updated regulations and conclude the letter is fully consistent with the updated regulations.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). A complete record of this consultation is on file at NMFS' Southern California Office in Long Beach, California.

Consultation History

On October 10, 2019, NMFS received Caltrans' biological assessment and letter requesting initiation of consultation under Section 7 of the ESA. On October 17, 2019, NMFS requested more information regarding geotechnical drilling. Caltrans responded with the requested information on October 21, 2019, and consultation was initiated on the same day.

Proposed Action and Action Area

The proposed action involves the SR-1 Bridge over the Santa Maria River in both Santa Barbara and San Luis Obispo Counties. The action area includes approximately 420 linear feet of the Santa Maria River below the bridge where equipment is expected to disturb the dry riverbed and the riparian corridor.

Owing to a variety of anthropogenic factors, including operation of Twitchell Dam, river discharge can be intermittent or nonexistent in the Santa Maria River downstream of the confluence with the Sisquoc River. The Santa Maria River is designated critical habitat for SC steelhead (71 FR 834), and a freshwater migration corridor in the action area coincides with wet-season river flows. Because this section of the river is expected to be dry during the time of the proposed action, steelhead are not expected to be present.

Under the proposed action, Caltrans would replace the degraded bridge at SR-1 over Santa Maria River between May 1 and October 31 during two consecutive seasons. The new bridge will be built parallel to and 34ft to the east of the existing bridge, and SR-1 will be realigned to match the new bridge location. The bridge deck will be higher than the existing to accommodate a new profile. Prior to construction, geotechnical drilling will be done from the bridge deck when the river is dry and the holes will be backfilled to restore the riverbed to the pre-drilling condition. During the first construction season, riparian habitat will be cleared to construct two 15ft wide access roads into the channel on the northeast and southwest sides of the existing bridge. Twelve sets of three 4ft diameter cast-in-drill-hole piles will be constructed for the new bridge in the riverbed. The new piers will occupy 148.9ft² less area in Santa Maria River than the 23 pier walls on the existing bridge. Each bent will be capped and the new bridge will be installed. During the second construction season, the old bridge and roadway will be demolished and bike and pedestrian lanes will be constructed on the new bridge. The disturbed riverbanks will be revegetated at a 3:1 ratio with locally present and fast growing willows, along with 0.51 acres of upland habitat previously occupied by the old bridge and roadway. Caltrans proposes to implement the following measures as part of the proposed action:

- Prior to construction, a qualified biologist will conduct a worker environmental training including a description of endangered steelhead

and habitats, avoidance/minimization measures, and the implications of violating the ESA.

- Prior to any ground-disturbing activities, temporary ESA fencing will be installed.
- During construction, instream work will be limited to when the creek is dry and will be coordinated to avoid releases of water from Twitchell Dam. No water diversion will be required.
- Prior to construction, a water pollution plan will be developed. Provisions of this plan will be implemented during and after construction as necessary to avoid and minimize erosion and pollution in and near the work area.
- All project-related hazardous materials spills within the project site will be cleaned up immediately. Spill prevention and cleanup materials will be kept on-site during construction.
- During construction, erosion control measures will be implemented (e.g., silt fencing, fiber rolls, barriers).
- Cleaning and refueling equipment and vehicles will occur within a designated staging area at a minimum of 100ft from aquatic areas. If the area is less than 100ft from aquatic areas, it will be surrounded by barriers (e.g. fiber rolls).
- 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.
- All temporary excavations and fills within the action area will be removed in their entirety and returned to pre-construction elevations.
- Prior to construction, Caltrans will prepare a Mitigation and Monitoring Plan to mitigate impacts to vegetation and natural habitats. All riparian planting will be monitored for five years to ensure successful revegetation.
- Each season after construction has been completed, stream contours will be restored to their preconstruction condition.

We considered whether the proposed action would cause any other activities and determined that it would cause utility relocations such as the low-hanging utility lines that are currently near the bridge. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Utility relocations would not occur but for the bridge replacement activities and are reasonably certain to occur due to the proximity to the existing bridge.

Background and Action Agency's Effects Determination

Caltrans determined that the proposed action “may affect and is not likely to adversely affect” SC steelhead and “may affect, but is not likely to adversely affect” designated critical habitat for the species. These determinations are based on implementation of avoidance and minimization measures, specifically that the proposed action will occur when no flow is present and steelhead presence is unlikely and that the proposed action will result in a net decrease of man-made structures within the migratory corridor

Effects of the Action

Under the ESA, “effects of the action” are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR 402.02). In our analysis, which describes the effects of the proposed action, we considered 50 CFR 402.17(a) and (b). When evaluating whether the proposed action is not likely to adversely affect listed species or critical habitat, NMFS considers whether the effects are expected to be completely beneficial, insignificant, or discountable. Completely beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur.

The effects of the proposed action on designated critical habitat for endangered steelhead are expected to be discountable, for at least a few reasons. First, the proposed action is anticipated to cause only temporary loss of riparian habitat, and a possible, though temporary, turbidity increase during the first winter or spring storm following construction. Second, no channel-grade change is expected and all instream work will occur when the river is dry (May 1 – October 31). Third, water pollution-prevention procedures will be in place to avoid downstream turbidity effects and release of debris and contaminants into the riverbed. Upon completion of construction, debris will be removed from the action area and disturbed vegetation will be replanted. Fourth, the utility relocations may cause temporary disturbance to critical habitat, but not in excess of the collective disturbance expected from the other elements of the proposed action, owing in part to the discreteness of the relocations. Compared to the existing bridge, the new bridge columns will occupy less area within the riverbed and fewer pier sets, which improve flow conveyance, benefitting the freshwater migratory corridor for steelhead.

Finally, upon completion of construction, channel-bed contours will be restored to pre-construction conditions

With regard to endangered steelhead, the effects of the proposed action are expected to be discountable. Because the work will be conducted when the Santa Maria River is dry, steelhead are not expected to be present in the action area. In addition, we don't expect adverse effects to the species later in time because the construction of the new bridge is not anticipated to materially alter the functional value of the designated critical habitat to serve the intended conservation role for the species.

Conclusion

Based on this analysis, NMFS concurs with Caltrans that the proposed action is not likely to adversely affect endangered SC steelhead and designated critical habitat for the species.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by Caltrans or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) the proposed action causes take; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the written concurrence; or (4) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation. Please direct a question regarding this letter to Jess Adams at (562) 980-4013 or jessica.adams@noaa.gov.

Sincerely,

Anthony P. Spina
Chief, Southern California Branch
California Coastal Office

National Marine Fisheries Service

Updated Species List, August 27, 2020

Caltrans Santa Maria River Bridge Replacement Project, 05-1H440

Quad Name: **Guadalupe**

Quad Number: **34120-H5**

ESA Anadromous Fish

SONCC Coho ESU (T) – N/A
CCC Coho ESU (E) – N/A
CC Chinook Salmon ESU (T) – N/A
CVSR Chinook Salmon ESU (T) – N/A
SRWR Chinook Salmon ESU (E) – N/A
NC Steelhead DPS (T) – N/A
CCC Steelhead DPS (T) – N/A
SCCC Steelhead DPS (T) – PRESENT
SC Steelhead DPS (E) – PRESENT
CCV Steelhead DPS (T) – N/A
Eulachon (T) – N/A
sDPS Green Sturgeon (T) - **PRESENT**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat – N/A
CCC Coho Critical Habitat – N/A
CC Chinook Salmon Critical Habitat – N/A
CVSR Chinook Salmon Critical Habitat – N/A
SRWR Chinook Salmon Critical Habitat – N/A
NC Steelhead Critical Habitat – N/A
CCC Steelhead Critical Habitat – N/A
SCCC Steelhead Critical Habitat – N/A
SC Steelhead Critical Habitat - PRESENT
CCV Steelhead Critical Habitat – N/A
Eulachon Critical Habitat – N/A
sDPS Green Sturgeon Critical Habitat – N/A

ESA Marine Invertebrates

Range Black Abalone (E) – N/A
Range White Abalone (E) – N/A

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat – N/A

ESA Sea Turtles

East Pacific Green Sea Turtle (T) – N/A

Olive Ridley Sea Turtle (T/E) – N/A

Leatherback Sea Turtle (E) – N/A

North Pacific Loggerhead Sea Turtle (E) – N/A

ESA Whales

Blue Whale (E) – N/A

Fin Whale (E) – N/A

Humpback Whale (E) – N/A

Southern Resident Killer Whale (E) – N/A

North Pacific Right Whale (E) – N/A

Sei Whale (E) – N/A

Sperm Whale (E) – N/A

ESA Pinnipeds

Guadalupe Fur Seal (T) – N/A

Steller Sea Lion Critical Habitat – N/A

Essential Fish Habitat

Coho EFH – N/A

Chinook Salmon EFH – N/A

Groundfish EFH – N/A

Coastal Pelagics EFH – N/A

Highly Migratory Species EFH – N/A

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office

562-980-4000

MMPA Cetaceans – N/A

MMPA Pinnipeds – N/A

Appendix H Comment Letters and Responses

This appendix contains the comments received during the public circulation and comment period from May 21, 2020 to July 2, 2020. Comments were retyped for readability and verbatim, with acronyms, abbreviations and any original grammatical or typographical errors. A Caltrans response follows each comment presented.

A Notice of Completion was submitted to the California State Clearinghouse on May 21, 2020. The California State Clearinghouse has confirmed that the public review period started on May 21, 2020 and ended on July 2, 2020.

Comment from the California Department of Fish and Wildlife

July 7, 2020

Submitted by Baron Barrera, for Erinn Wilson, via email attachment.

Dear Mr. Fowler:

The California Department of Fish and Wildlife (CDFW) has reviewed the Draft Mitigated Negative Declaration (MND) for the Santa Maria River Bridge Replacement Project (Project). The California Department of Transportation (Caltrans) is the lead agency preparing an MND pursuant to the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et. seq.) with the purpose of informing decision-makers and the public regarding potential environmental effects related to the Project. Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. [Fish & Game Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; CEQA Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is

charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect state fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in “take”, as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish and Game Code, §1900 et seq.) authorization as provided by the applicable Fish and Game Code will be required.

Project Description and Summary

Objective: The proposed Project will 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, north of the City of Guadalupe. The new bridge would be built approximately 34 feet east from the center line of the existing bridge. The bridge deck would be thicker, and the elevation of the bridge deck would be raised by two 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. New bridge abutments will also be constructed to accommodate the wider bridge structure.

The new bridge would include two 12-foot-wide lanes with 8-foot-wide outside shoulders and an 8-foot-wide protected pathway, on the southbound (west) side, for pedestrian and cyclists. The new design will reduce the number of engineered, structural elements in the river and is not expected to alter the existing levee structure along the river. Standard traffic and pedestrian railings would be installed as well.

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 the stage of construction. The existing roadway transitions north and south of the bridge structure will require pavement adjustments and restriping to fit the new alignment.

Permanent impacts total approximately 1.4 acres and are expected to occur predominantly where the new State Route 1 alignment would be shifted. Permanent impacts would also occur at each of the 12 new pier structures. However, the Project would remove the existing 23 piers walls, resulting in a net gain of streambed habitat. Due to the highway realignment, there are areas of existing road that would no longer be a part of the highway system.

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.

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.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist Caltrans in adequately identifying, avoiding, minimizing, and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

Project Description and Related Impact Shortcoming

Comment #1: Impacts to Plant Communities

Issue: Avoidance, Minimization, and Mitigation Measures, detailed in the Wetland and Other Waters section of the MND, indicates mitigation for loss trees removed “[...] will be replaced at a 1:1 or 3:1 ratio depending on their species.” In addition, Davidson’s saltscall (*Atriplex serenana var. davidsonii*), statewide ranking of S1, is known to occur within the vicinity of the Project but is not discussed in the MND.

Specific impact: CDFW considers plant communities, alliances, and associations with a statewide ranking of S1, S2, S3, and S4 as

sensitive and declining at the local and regional level (Sawyer et al. 2008). An S3 ranking indicates there are 21-80 occurrences of this community in existence in California, S2 has 6-20 occurrences, and S1 has less than 6 occurrences. The Project may have direct or indirect effects to these sensitive species.

Why impact would occur: Project implementation includes grading, vegetation clearing for construction, road maintenance, and other activities that may result in direct mortality, population declines, or local extirpation of sensitive plant species.

Evidence impact would be significant: Impacts to special status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. Inadequate avoidance, minimization, and mitigation measures for impacts to these sensitive plant species will result in the Project continuing to have a substantial adverse direct, indirect, and cumulative 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 CDFW or U.S. Fish and Wildlife Services (USFWS).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends conducting focused surveys for sensitive/rare plants on-site and disclosing the results in the Mitigated Negative Declaration. Based on the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959>), a qualified biologist should “conduct surveys in the field at the time of year when species are both evident and identifiable. Usually this is during flowering or fruiting.” The final CEQA documentation should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from project-related direct and indirect impacts.

Mitigation Measure #2: In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the state (Fish & Game Code, § 1940). This standard complies with the National Vegetation Classification System, which utilizes alliance and association-based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the Manual of California Vegetation (MCV), found online at <http://vegetation.cnps.org/>. To determine the rarity ranking of vegetation communities on the Project site, the MCV alliance/association community names should be

provided as CDFW only tracks rare natural communities using this classification system.

Mitigation Measure #3: CDFW recommends avoiding any sensitive natural communities found on the Project. If avoidance is not feasible, mitigating at a ratio of no less than 5:1 for impacts to S3 ranked communities and 7:1 for S2 communities should be implemented. This ratio is for the acreage and the individual plants that comprise each unique community. All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by USFWS and CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and, a funding mechanism to assure for in perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (Assembly Bill 1094; Government Code, §§ 65965-65968).

Comment #2: Impacts to Streams & Associated Watershed Functions

Issue: Construction of the Project, as proposed, would likely result in impacts to stream associated habitats (e.g., wetland, riparian, and/or salt marsh habitat).

Specific impacts: The Project may result in the loss of streams and associated watershed function and biological diversity. Grading and construction activities will likely alter the topography, and thus the hydrology, of the Project site.

Why impacts would occur: Ground disturbing activities from grading and filling, water diversions, and dewatering would physically remove or otherwise alter existing streams or their function and associated riparian habitat on the Project site. Biological resources beyond the Project development footprint may also be impacted by Project related releases of sediment and altered watershed effects (e.g., changes in flow regimes, infiltration, runoff, and slope stability) resulting from Project activities.

Evidence impacts would be significant: The Project may substantially adversely affect the existing stream pattern of the Project site through the alteration or diversion of a stream, which absent specific mitigation, could result in substantial erosion or siltation on site or off site of the Project.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: The Project may result in the alteration of streams. For any such activities, the Project applicant (or “entity”) must provide written notification to CDFW pursuant to section 1600 et seq. of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration Agreement (LSA) with the applicant is required prior to conducting the proposed activities. A notification package for an LSA may be obtained by accessing CDFW’s web site at www.wildlife.ca.gov/habcon/1600. CDFW’s issuance of an LSA for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document of the Lead Agency for the Project. However, the MND does not meet CDFW’s standard at this time. To minimize additional requirements by CDFW pursuant to section 1600 et seq. and/or under CEQA, the CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA.

Mitigation Measure #2: Any LSA permit issued for the Project by CDFW may include additional measures protective of streams on and downstream of the Project. The LSA may include further erosion and pollution control measures. To compensate for any on-site and off-site impacts to riparian resources, additional mitigation conditioned in any LSA may include the following: avoidance of resources, on-site or off-site creation, enhancement or restoration, and/or protection and management of mitigation lands in perpetuity.

Comment #3 Impacts to Fish Passage

CDFW is in support of the use of free-span bridges with no concrete-in-channel designs and would not support a change in design that would include instream hardening of the streambed. To confirm that the Project will not block, obstruct, impede, fish passage, both up and downstream of the bridge, please provide CDFW with an opportunity to review and comment on 65% Design Plans and the Basis of Design at your earliest convenience.

Comment #4: Relying on Preconstruction surveys for Presence of CESA-listed and CEQA-rare species.

Issue 1: The use of pre-construction surveys, in lieu of appropriate protocol surveys, is not adequate for detection of CESA-listed and CEQA-rare (including species of special concern (SSC)), per Fish and

Game Code, section 2081 (b) and California Code of Regulations, sections 783.2-783.8.

Protocol surveys were not conducted for the following CESA-listed species that have a likelihood of presence in or adjacent to the Project: southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and Swainson's hawk (*Buteo swainsoni*).

Protocol surveys were not conducted for the SSC California red-legged frog (*Rana draytonii*) and western spadefoot (*Spea hammondi*) which have been documented in the Santa Maria River and have a potential to be present in or adjacent to the Project.

Specific Impact:

Amphibians

The MND should contain survey results to demonstrate presence or absence of SSC California red-legged frog and western spadefoot to provide an accurate assessment of the aforementioned species population that may be impacted (CEQA Guidelines, § 15126.4, subd. (a)(1)(B)).

Listed Birds:

The MND's mitigation measures for nesting birds do not appear adequate to demonstrate avoidance or minimization of take of CESA-listed species (southwestern willow flycatcher, Swainson's hawk, and least Bell's vireo). Language within the MND calls for removal of trees outside of the bird nesting season. This language does not acknowledge that take of habitat, at any time of the year, that is documented to support least Bell's vireo, Swainson's hawk and/or southwestern flycatcher may still trigger take under CESA and could necessitate an incidental take permit (ITP). CESA, as defined by State law, prohibits take of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.) Birds that display high site fidelity, such as least Bell's vireo, return to the same nesting site annually. Take of known nesting habitat, even outside of the nesting season, could still be considered take subject to CESA.

Why impact would occur:

The Project may result in impacts to CEQA-rare (including SSC) or CESA-listed species without including any specific disclosure or analysis in the MND. Deferring impact assessment and disclosure to pre-construction surveys does not allow adequate disclosure of impacts during the CEQA review period. Potential occurrences of

CEQA-rare (including SSC) or CESA-listed species within the Project area are supported by suitable habitat and California Natural Diversity Database observations of these species in the vicinity of the Project. Surveys should be conducted to determine presence or absence so the MND can analyze the Project's impact to any CEQA-rare (including SSC) or CESA-listed species present and provide specific avoidance and mitigation measures. The species analysis should be included in the MND, including location (map), population/occurrence size estimates, and an assessment of specific impacts with avoidance and minimization measures containing specific performance criteria (Save Agoura Cornell Knoll v. City of Agoura Hills).

Direct impacts via habitat removal, noise, percussive vibration, human disturbance, channel diversion, sedimentation in the channel affecting food supply, increased exposure to predation, and direct take would reasonably occur during the Project. Anthropogenic noise can disrupt the communication of many wildlife species including frogs, birds, and bats (Sun and Narins 2005, Patricelli and Blickley 2006, Gillam and McCracken 2007, Slabbekoorn and Ripmeester 2008). Noise can also affect predator-prey relationships as many nocturnal animals such as bats and owls primarily use auditory cues (i.e., hearing) to hunt. Additionally, many prey species increase their vigilance behavior when exposed to noise because they need to rely more on visual detection of predators when auditory cues may be masked by noise (Rabin et al. 2006, Quinn et al. 2017). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009) and cause increased stress that results in decreased immune responses (Kight and Swaddle 2011). The MND analyzed noise and vibration affects only to human-based sensitive receptors and without analyzing these impacts to sensitive wildlife species or providing any minimization or mitigation measures for impacts to sensitive species.

Increased ambient lighting levels can increase predation risks and disorientation and disrupt normal behaviors in adjacent feeding, breeding, and roosting habitat (Longcore and Rich).

Evidence impact would be significant: CEQA Guidelines, sections 15070 and 15071 require the MND to analyze if the Project may have a significant effect on the environment as well as review if the Project will avoid the effect or mitigate to a point where clearly no significant effects would occur. In order to analyze if a project may have a significant effect on the environment, the Project related impacts, including protocol survey results for CEQA-rare (including SSC) or CESA-listed species that occur in the Project footprint need to be disclosed. This disclosure is necessary to allow CDFW to comment on alternatives to avoid impacts, as well as to assess the significance of

the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity).

The loss of occupied habitat or reductions in the number of Swainson's hawk, least Bell's vireo, and/or southwestern willow flycatcher, either directly or indirectly through nest abandonment or reproductive suppression, may constitute a significant impact absent appropriate mitigation. Furthermore, nests of all native bird species are protected under both federal and state laws and regulations, including the Migratory Bird Treaty Act (MBTA; U.S.C., §§ 703 - 712) and California Fish and Game Code, sections 3503 and 3503.5, respectively.

Absent survey data, CDFW is unable to provide meaningful avoidance, minimization, or mitigation measures related to biological resources. CDFW recommends the lead agency conduct appropriate, species-specific, protocol biological surveys and to consult with CDFW for avoidance, minimization, and mitigation measures prior to finalizing the MND.

Recommendations:

CDFW recommends protocol surveys be conducted by a qualified biologist to determine the presence of Swainson's hawk, southwestern willow flycatcher, least Bell's vireo, California red-legged frog, and western spadefoot. Surveys should be conducted within the Project and an adjacent 500-foot buffer and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines, §15125).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends coordinating with CDFW regarding impacts to California red-legged frog and western spadefoot that may occur during construction. The Project, as proposed, may detrimentally impact the species, which are both SSC.

Mitigation Measure #2: CDFW recommends that Caltrans develop mitigation strategies, with specific performance criteria, that appropriately offset detrimental impacts to California red-legged frog, western Spadefoot, and their associated habitat. The mitigation site should provide equivalent function/value, be protected with a conservation easement (or equivalent) and include appropriate management and monitoring with sufficient funding to ensure long-term protection of the habitat. To account for unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore would not adequately mitigate the loss of biological

functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be pursued. If off-site mitigation is selected, CDFW recommends it be at a state-approved mitigation bank or via an entity that has been approved by CDFW to hold and manage mitigation lands pursuant to AB 1094 (2012), which amended Government Code, sections 65965-65968. All mitigation and mitigation plans should be provided in advance of any Project entitlements and the MND should include the specific performance standards detailed in these plans. CDFW can provide guidance to Caltrans regarding appropriate mitigation ratios.

Mitigation Measure #3: CDFW recommends monitoring noise generated by Project operations during construction and post-construction operations to ensure noise from the Project does not affect wildlife in the adjacent and nearby habitat areas. The MND should set acceptable noise thresholds that would be part of a long-term monitoring and reporting program to ensure impact to adjacent habitat is below a threshold that would have an adverse effect. The MND should provide noise and vibration analysis with contour maps, and provide specific avoidance, minimization, mitigation, monitoring and reporting commitments to assure identified minimization measures are effective.

Mitigation Measure #4: CDFW recommends the Project restrict use of equipment and lighting to hours least likely to disrupt wildlife (e.g., not at night or in early morning before 9 a.m.). Generators should not be used except for temporary use in emergencies. Power to sites can be provided by solar PV (photovoltaic) systems, cogeneration systems (natural gas generator), or small wind turbine systems. CDFW recommends use of noise suppression devices such as mufflers or enclosure for generators. Sounds generated from any means should be below the 55-60 dB range within 50-feet from the source.

Comment #5: Project Impact to Bats

Issue: Inadequate bat reconnaissance work completed. Given the abundant evidence of bat presence, night surveys should be performed to ensure a maternity colony and/or day roosting is not occurring on the structure.

Specific Impact: The MND states “[e]vidence of [bat] 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.” The MND clearly articulates bat presence on the existing structure. Therefore, the presence of day roosting bats, and a potential maternity colony, cannot be ruled out until appropriate night surveys have been performed.

The daytime roosting bat survey Caltrans conducted looked for external signs of bat presence but did not include visual inspections inside swallow nests or inside bridge structures that could be supporting bats. Abandoned swallow nests have routinely been documented to host bats, even with swallows still using the bridge to actively nest. In addition, bats have often been found in drain holes comparable to the ones discussed in the MND.

Since bats are not typically ever active during the day, CDFW questions the reliance on solely using a daytime visual survey for a bridge that very likely supports bat species. At a minimum, a simple dusk exit survey should be performed.

Specific Impact: The MND states several species of bats have the potential to occur onsite; however, surveys were not conducted prior to circulation of the MND to inform species specific usage of the bridge. Therefore, the MND does not adequately disclose the potential for impacts to bats.

Bats in southern California can be active year-round, however, all potential breeding species are most active between March 15 and September 15. Surveys should be conducted at different times of year for at least one year and include at least one survey in the middle of the above dates and at least one in fall/winter during periods of warm weather. Each bat species has unique habitat needs, such as specific gap size of cracks and seasonality, that should be used to formulate appropriate mitigation into the Project CEQA document and to minimize impacts to sensitive bat species. The MND should document the presence of any bats to the species level and include species specific mitigation measures to reduce impacts to below a level of significance.

Evidence Impact would be significant: Bats are considered non-game mammals and are afforded protection by State law from take and/or harassment, (Fish and Game Code, § 4150, California Code of Regulations, § 251.1). Several bat species are also considered SSC and meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15065). Take of SSC could require a mandatory finding of significance by the Lead Agency, (CEQA Guidelines, § 15065).

Each bat species has unique habitat needs, such as specific gap size of cracks and seasonality that should be used to formulate appropriate mitigation into the Project CEQA document and to minimize impacts to sensitive bat species. The MND should document the presence of any bats and include species specific mitigation measures to reduce impacts to below a level of significance, which include providing replacement roosting habitat. Without specific species presence information, CDFW cannot recommend appropriate species-specific habitat features such as designing false gaps into the bridge, creating swallow nest habitat, or any other habitat feature that would provide meaningful mitigation for impacts to bat roosting habitat.

Recommended Feasible Mitigation Measures:

Mitigation Measure #1: CDFW recommends bat surveys be conducted by a qualified bat specialist to determine bat presence within the Project and within a 500-foot buffer and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines, §15125). CDFW recommends the MND include the use of acoustic recognition technology to maximize detection of bats and determine species presence, for disclosure in the CEQA document.

To avoid the direct loss of bats that could result from removal of the bridge, swallow nests, trees, rock crevices, structures, that may provide roosting habitat (winter hibernacula, summer, and maternity), CDFW recommends that the following steps should be implemented:

1. Identify the species of bats present on the site;
2. Determine how and when these species utilize the site and what specific habitat requirements are necessary [(thermal gradients throughout the year, size of crevices, tree types, location of hibernacula/roost (height, aspect, etc.)];
3. Avoid the areas being utilized by bats for hibernacula/roosting; If avoidance is not feasible, a bat specialist should design alternative habitat that is specific to the species of bat being displaced and develop a relocation plan in coordination with CDFW;
4. The bat specialist should document all demolition monitoring activities and prepare a summary report to the Lead Agency upon completion of tree/rock disturbance and/or building demolition activities. CDFW requests copies of any reports prepared related to bat surveys (e.g., monitoring, demolition);
5. If confirmed occupied or formerly occupied bat roosting/hibernacula and foraging habitat is destroyed, habitat of comparable size, function and quality should be created or preserved and maintained at a nearby

suitable undisturbed area. The bat habitat mitigation shall be determined by the bat specialist in consultation with CDFW;

6. A monitoring plan should be prepared and submitted to the Lead Agency and the specific details outlined in the MND. The monitoring plan should describe proposed mitigation habitat, and include performance standards for the use of replacement roosts/hibernacula by the displaced species, as well as provisions to prevent harassment, predation, and disease of relocated bats; and,

7. Annual reports detailing the success of roost replacement and bat relocation should be prepared and submitted to Lead Agency and the CDFW for five years following relocation or until performance standards are met, whichever period is longer.

Mitigation Measure #2: CDFW recommends any new bridge be designed to include design features to replace niches of the bridge currently used by bats including allowing future swallow nests to be rebuilt. Suitable conditions required for swallow nesting habitat include horizontal ledges or rough vertical surfaces with a sheltered overhang, allow swallow to freely enter and exit nests, and ensure a design to deter predators. New bridge design should also include weep holes, (faux) expansion cracks to mimic any current bat habitat, and any other bridge features that currently supports bat roosting.

Mitigation Measure #3: Prior to the demolition of the current bridges, temporary nesting/roosting habitat should be provided. Nesting structures must be created before the onset of demolition activities during a period bats are active and able to move to the new roosting habitat.

Filing Fees

The Project, as proposed, would have an impact on fish and/or wildlife resources, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (California Code of Regulations, tit. 14, § 753.5; Fish and Game Code, § 711.4; Public Resources Code, § 21089).

Conclusion

We appreciate the opportunity to comment on the project to assist Caltrans in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that Caltrans has to our comments and to

receive notification of any forthcoming hearing date(s) for the project. Questions regarding this letter and further coordination on these issues should be directed to Baron Barrera, Environmental Scientist (Specialist), at (858) 354-4114 or Baron.Barrera@wildlife.ca.gov.

Sincerely,

Erinn Wilson
Environmental Program Manager I

cc: CDFW

Steve Gibson – Los Alamitos
Kelly Schmoker-Stanphill – Glendora
Sarah Rains – Ventura
Baron Barrera – Los Alamitos
Matt Chirdon – Los Alamitos
Cindy Hailey – San Diego
Scott Morgan (State Clearinghouse)

References:

California Department of Fish and Wildlife, 2018. Updated Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Accessed at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959>.

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CDFW recommends the following language to be incorporated into a future environmental document for the project.

Biological Measures

MM-BIO-1-Protocol Surveys and MND Recirculation

Mitigation Measure: CDFW recommends protocol surveys be conducted by a qualified biologist to determine the presence of California red-legged frog, western spadefoot, Swainson’s hawk, southwestern willow flycatcher, and least Bell’s vireo. Surveys should be conducted within the Project and an adjacent 500-foot buffer and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines, §15125).

Surveys for these species should follow accepted scientific protocol to allow the Department to determine the extent of impacts to the species

associated with the Project and provide meaningful avoidance, minimization, and mitigation measures. The Department recommends the MND be recirculated after these surveys are completed to fully disclose the potential impacts to these species.

The MND should be recirculated after these surveys are completed to fully disclose the potential impacts to the number and kind of California red-legged frog, western spadefoot, Swainson's hawk, least Bell's vireo, and willow flycatcher.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-BIO-2-CESA

Mitigation Measure: CDFW recommends initiating consultation for this Project under CESA.

Timing: Prior to construction

Responsible Party: Caltrans

MM-Bio-3-Habitat Mitigation

Mitigation Measure: CDFW recommends that Caltrans develop mitigation strategies, with specific performance criteria, that appropriately offset detrimental impacts to the aforementioned listed species (including SSC) and their associated habitat. The mitigation site should provide equivalent function/value, be protected with a conservation easement (or equivalent) and include appropriate management and monitoring with sufficient funding to ensure long-term protection of the habitat. To account for unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore would not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be pursued. If off-site mitigation is selected, CDFW recommends it be at a state-approved mitigation bank or via an entity that has been approved by CDFW to hold and manage mitigation lands pursuant to AB 1094 (2012), which amended Government Code, sections 65965-65968. All mitigation and mitigation plans should be provided in advance of any Project entitlements and the MND should include the specific performance standards detailed in these plans. CDFW can provide guidance to Caltrans regarding appropriate mitigation ratios.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-Bio-4-Noise Monitoring

Mitigation Measure: CDFW recommends monitoring noise generated by Project operations during construction and post-construction operations to ensure noise from the Project does not affect wildlife in the adjacent wetland/riverine/upland habitat. The MND should set acceptable noise thresholds that would be part of a long-term monitoring and reporting program to ensure impact to adjacent habitat is below a threshold that would have an adverse effect. The MND should provide noise and vibration analysis with contour maps, and provide specific avoidance, minimization, mitigation, monitoring and reporting commitments to assure identified minimization measures are effective.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-Bio-5-Consturction Monitoring

Mitigation Measure: CDFW recommends the Project restrict use of equipment and lighting to hours least likely to disrupt wildlife (e.g., not at night or in early morning before 9am). Generators should not be used except for temporary use in emergencies. Power to sites can be provided by solar PV (photovoltaic) systems, cogeneration systems (natural gas generator), or small wind turbine systems. CDFW recommends use of noise suppression devices such as mufflers or enclosure for generators. Sounds generated from any means should be below the 55-60 dB range within 50-feet from the source.

Timing: Prior to Finalizing the EIR

Responsible Party: Caltrans

MM-Bio-6-Bats

Mitigation Measure: CDFW recommends bat surveys be conducted by a qualified bat specialist to determine bat presence within the Project and within a 500-foot buffer and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines, §15125). CDFW recommends the MND include the use of acoustic recognition technology to maximize detection of bats and determine species presence, for disclosure in the CEQA document. Bats in southern California can be active year-round, however, all

potential breeding species are most active between March 15 and September 15. Surveys should be conducted at different times of year for at least one year and include at least one survey in the middle of the above dates and at least 1 in fall/winter during periods of warm weather. Each bat species has unique habitat needs, such as specific gap size of cracks and seasonality, that should be used to formulate appropriate mitigation into the Project CEQA document and to minimize impacts to sensitive bat species. The MND should document the presence of any bats and include species specific mitigation measures to reduce impacts to below a level of significance. The mitigation for bats using swallow nests will be very different from the mitigation for bats using bridge cracks or holes.

To avoid the direct loss of bats that could result from removal of the bridge, swallow nests, trees, rock crevices, structures, that may provide roosting habitat (winter hibernacula, summer, and maternity), CDFW recommends that the following steps should be implemented:

1. Identify the species of bats present on the site;
2. Determine how and when these species utilize the site and what specific habitat requirements are necessary [(thermal gradients throughout the year, size of crevices, tree types, location of hibernacula/roost (height, aspect, etc.)];
3. Avoid the areas being utilized by bats for hibernacula/roosting; If avoidance is not feasible, a bat specialist should design alternative habitat that is specific to the species of bat being displaced and develop a relocation plan in coordination with CDFW.
4. The bat specialist should document all demolition monitoring activities and prepare a summary report to the Lead Agency upon completion of tree/rock disturbance and/or building demolition activities. CDFW requests copies of any reports prepared related to bat surveys (e.g., monitoring, demolition);
5. If confirmed occupied or formerly occupied bat roosting/hibernacula and foraging habitat is destroyed, habitat of comparable size, function and quality should be created or preserved and maintained at a nearby suitable undisturbed area. The bat habitat mitigation shall be determined by the bat specialist in consultation with CDFW;
6. A monitoring plan should be prepared and submitted to the Lead Agency and the specific details outlined in the MND. The monitoring plan should describe proposed mitigation habitat, and include performance standards for the use of replacement roosts/hibernacula

by the displaced species, as well as provisions to prevent harassment, predation, and diseases of relocated bats; and,

7. Annual reports detailing the success of roost replacement and bat relocation should be prepared and submitted to Lead Agency and the CDFW for five years following relocation or until performance standards are met, whichever period is longer.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-Bio-7-Bats

Mitigation Measure: CDFW recommends any new bridge be designed to include design features to replace niches of the bridge currently used by bats including allowing future swallow nests to be rebuilt. Suitable conditions required for swallow nesting habitat include horizontal ledges or rough vertical surfaces with a sheltered overhang, allow swallow to freely enter and exit nests, and ensure a design to deter predators. New bridge design should also include weep holes, (faux) expansion cracks to mimic any current bat habitat, and any other bridge feature that currently supports bat roosting.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-Bio-8-Bats

Mitigation Measure: Prior to the demolition of the current bridges, temporary nesting/roosting habitat should be provided. Nesting structures must be created before the onset of demolition activities during a period bats are active and able to move to the new roosting habitat.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-Bio-9-CEQA-Rare Plants

Mitigation Measure: Any mitigation for CEQA-rare plant impacts should include specific, measurable criteria for success. Monitoring for CNPS California Rare Plant Ranked (CEQA-rare) plants should occur for a sufficient period to allow trends to be analyzed and demonstrate the occurrence is stable over time. No negative trend in CEQA-rare plant individuals (counted separately as flowering, seed set and non-

flowering individuals), and no positive trend in non-native plant cover should occur over the monitoring period. CDFW recommends a ratio of at least 2:1 for both the acreage and number of plants impacted.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-Bio-10-CEQA-Rare Plants

Mitigation Measure: CDFW recommends a Documented Conservation Seed Collection of the impacted rare plant species be made and deposited at either Santa Barbara Botanic Garden or the California Botanic Garden (formerly known as Rancho Santa Ana Botanic Garden). A Documented Conservation Seed Collection is when seed from a CNPS-ranked and/or CESA-listed plant species is collected and stored as part of a permanent genetic collection in a protected location. This collection preserves the genome, and any unique alleles that are present in any given occurrence, for future study and reintroduction projects.

Funding should be provided to maintain the collection, as well as conduct periodic germination and viability tests, in perpetuity. Documented conservation collections (long-term storage) are important for conserving rare, gene pool representative germplasm designated for long-term storage to provide protection against extinction and as a source material for future restoration and recovery.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

MM-Bio-11-CEQA-Rare Plants

Mitigation Measure: A weed management plan should be developed for the Project area and implemented during the duration of this Project. On-going soil disturbance promotes establishment and growth of non-native weeds. As part of the Project, non-native weeds should be prevented from becoming established. The Project area should be monitored via mapping for new introductions and expansions of non-native weeds.

Timing: Prior to Finalizing the MND

Responsible Party: Caltrans

Caltrans' response to the California Department of Fish and Wildlife,

Thank you for your comments.

Please see the following responses in regard to your comments.

Comment #1: Impacts to Plant Communities

*Issue: Avoidance, Minimization, and Mitigation Measures, detailed in the Wetland and Other Waters section of the MND, indicates mitigation for loss trees removed “[...] will be replaced at a 1:1 or 3:1 ratio depending on their species.” In addition, Davidson’s saltscale (*Atriplex serenana* var. *dauidsonii*), statewide ranking of S1, is known to occur within the vicinity of the Project but is not discussed in the MND.*

Caltrans biologists completed surveys for sensitive/rare plants on site and disclosed the full results in the Natural Environment Study. The survey results for sensitive/rare plants has been added to the Mitigated Negative Declaration, 2.3.3 Plant Species. Surveys were based on the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Vegetation mapping was completed and included in the Natural Environment Study. No special-status plants were observed during appropriately timed field surveys during the bloom periods. The Natural Environment Study has determined that suitable conditions for Davidsons’s saltscale are absent within the project area and none were observed during appropriately time field surveys. There will be no impact to rare plants or natural vegetation communities, other than impacts to La Graciosa Thistle Critical Habitat, which is not state listed. All sensitive natural communities will be avoided.

Comment #2: Impacts to Stream & Associated Watershed Functions

Issue: Construction of the Project, as proposed, would likely result in impacts to stream associated habitats (e.g., wetland, riparian, and/or salt marsh habitat).

The project will result in temporary and permanent impacts to riparian habitats, as discussed in Sections 2.3.1 Natural Communities and 2.3.2 Wetlands and Other Waters. These sections also include discussion of measures to avoid, minimize and mitigate for project impacts occurring within the Santa Maria River. A Lake and Streambed Alteration Agreement will be coordinated with the California Department of Fish and Wildlife for this project, and will need to be obtained prior to project construction. Caltrans will incorporate measures into the project to offset impacts to streambed and riparian habitats as required by the Lake and Streambed Alteration Agreement.

Comment #3: Impacts to Fish Passage

CDFW is in support of the use of free-span bridges with no concrete-in-channel designs and would not support a change in design that would include instream hardening of the streambed. To confirm that the Project will not block, obstruct, impede, fish passage, both up and downstream of the bridge, please provide CDFW with an opportunity to review and comment on 65% Design Plans and the Basis of Design at your earliest convenience.

The river and riparian corridor at this location are too wide to be conducive to a full-span design. The project is reducing the number of piers that currently exist on the Santa Maria River bridge by half. The project will therefore reduce the amount of in-channel obstructions to fish. There is no fish barrier caused by the existing bridge and there will be even less obstructions on the newly constructed bridge. The California Department of Fish and Wildlife will be able to review project plans during the Lake and Streambed Alteration Agreement coordination process. Additionally, Caltrans will coordinate a pre-application meeting with California Department of Fish and Wildlife ahead of submitting the Notification of Streambed Alteration when structure design plans are sufficiently detailed for in-depth discussion, typically around 60% design.

Comment #4: Relying on Preconstruction Surveys for Presence of CESA-listed and CEQA-rare Species.

Issue 1: The use of pre-construction surveys, in lieu of appropriate protocol surveys, is not adequate for detection of CESA-listed and CEQA-rare (including species of special concern (SSC)), per Fish and Game Code, section 2081 (b) and California Code of Regulations, sections 783.2-783.8.

*Protocol surveys were not conducted for the following CESA-listed species that have a likelihood of presence in or adjacent to the Project: southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and Swainson's hawk (*Buteo swainsoni*).*

*Protocol surveys were not conducted for the SSC California red-legged frog (*Rana draytonii*) and western spadefoot (*Spea hammondi*) which have been documented in the Santa Maria River and have a potential to be present in or adjacent to the Project.*

Mitigation Measure #3: CDFW recommends monitoring noise generated by Project operations during construction and post-construction operations to ensure noise from the Project does not affect wildlife in the adjacent and nearby habitat areas. The MND should set acceptable noise thresholds that would be part of a long-

term monitoring and reporting program to ensure impact to adjacent habitat is below a threshold that would have an adverse effect. The MND should provide noise and vibration analysis with contour maps, and provide specific avoidance, minimization, mitigation, monitoring and reporting commitments to assure identified minimization measures are effective.

In Section 2.3.3, Plant Species, all botanical surveys followed the appropriate protocols of U.S. Fish and Wildlife Service (2000) and California Department of Fish and Wildlife (2009). As discussed in Section 2.3.4, Animal Species, the project had presumed presence for special-status animal species that has suitable potential habitat within the project's Biological Study area. Protocol survey were not conducted due to the presumed presence of the special-status animal species. Species that did not have the potential to be present within the Biological Study Area and/or did not have the potential to be affected by the project were not discussed in the Mitigated Negative Document.

Based on the Natural Environment Study prepared for the project, the western spade foot habitat is absent from the Biological Study Area and species presence was not anticipated, thus no discussion of western spade foot in the Mitigated Negative Document. Nesting bird surveys were conducted for the Natural Environment Study, and the southwestern willow flycatcher, least Bell's vireo, and Swainson's hawk were not present. Protocol-level surveys were not deemed necessary because there are only historic occurrences of Swainson's hawk in the area, and no nearby occurrences of southwestern willow flycatcher or least Bell's vireo.

Caltrans guidance on the effects of noise on birds, Effects of Traffic Noise and Road Construction Noise on Birds 2016, states that "traffic and construction noise, even at extreme levels, is unlikely to cause threshold shift, hearing loss, auditory damage, or damage to other organ systems in birds". The loudest equipment anticipated for use on the project includes pile drivers (101 dBA), concrete saws (90 dBA), and pavement scarifier (90 dBA) measured 50 feet from the source, based on the Federal Highway Administration's 2006 Construction Noise Handbook. Given the principles of decibel addition, the loudest combined project sound would be 101 dBA. Based on sound attenuation principles for point source noise attenuating by 6 dB per doubling of distance from the source across a vegetated landscape, construction noise would attenuate below 93 dBA (a threshold for temporary threshold shift) within 104 feet of the source. A temporary threshold shift affects a bird's ability to hear sound, and it can last a period of seconds to days depending on the nature of exposure. Birds occurring within 100 feet of the source during pile driving could

experience this temporary threshold shift. It is unlikely that birds would be present within 100 feet of the activities, as birds will avoid the noise and disturbance caused by construction by leaving the surrounding area. Anytime noise levels are elevated above the ambient level, noise has the potential to affect communication among birds, an effect known as masking. Under existing conditions, birds that occur within the noise range of traffic from the highway are likely employing behavioral adaptations to communicate with each other over the traffic noise. These include changing the pitch of calls, moving to different areas that are quieter where they will avoid masking, or turning their head to better listen for calls that may be masked by above ambient noises.

Since the highway speed limit is 55 miles per hour and the highway is a two-lane road in this area, traffic noise is estimated at approximately 68 dBA measured within 200 feet from the source. Given the relatively low level of human development near the project area, as well as the proximity to the nearby active railroad, town of Guadalupe, agricultural machinery, and wind, the background noise level is estimated to be at least 50 dBA, not accounting for highway noise. Existing traffic noise would be expected to attenuate to ambient levels within 372 feet of the highway based on a 3-dBA attenuation rate for line source noise. Birds occurring within that distance from the highway likely use behaviors like head turning, raising vocal output, or moving locations to communicate over the sound of traffic. Since different species of birds perceive sounds differently (i.e. at different frequencies, and with different critical ratios above ambient for detection of sound), the behavioral changes exhibited, and the effects of noise may differ among species.

The loudest construction noises, such as those from pile driving, are marked by distinct starts and stops, allowing birds to communicate during periods between construction noise, or otherwise use behaviors described above. Other equipment, such as generators produce continuous sound, with noise levels well below the threshold for auditory threshold shift, but still above ambient levels. Although early masking studies led to an overall noise level guideline of around 60 dBA for continuous noise, this understanding has evolved as scientists have recognized the numerous behaviors that birds use to counter masking, including scanning (head turning), raising vocal output, and changing singing location. Each of these strategies alone can result in a significant gain in signal level or signal-to-noise ratio (under masking conditions) of about 10 dB, and birds can use all three strategies simultaneously. As a result, "it appears that the 60-dBA criterion has been inappropriately used in many reports over the past 25 years as a hard and fast rule regarding the effects of highway and other anthropogenic noise on birds". Noise from a generator operating at

approximately 81 dBA measured 50 feet from the source would attenuate to background traffic noise within 100 feet from the source. Within 100 feet, the sound would be only slightly above existing traffic noise. Since the project is located along a well-traveled section of State Route 1, with heavy train and agricultural traffic, birds nesting and foraging regularly around highways are likely already using these avoidance strategies because they have adapted to living and vocalizing around a highway successfully. Therefore, any potential for additional impacts from continuous noise would be very small and limited to the area within the construction footprint.

In summary, temporary construction noise impacts from impact pile driving would have the potential to temporarily affect birds' perception of sound within 100 feet from the source. Any such impact would be temporary, limited to a period of minutes to days. This impact is unlikely because birds would be expected to move out of the area upon the onset of construction activity, and because pre-construction surveys would ensure that nesting birds are not present in the immediate project vicinity. Masking effects would be unlikely because birds use a variety of behaviors to avoid potential masking, and because continuous noise from generators would be expected to dissipate to traffic levels within 100 feet of the source. Additionally, this 100-foot area would fall within the work avoidance buffers implemented around any nesting birds that occur on the project. Therefore, a nesting bird would not be impacted by sound if it was present in the project area of adjacent 100 feet. Pre-construction nesting bird surveys would confirm the absence of birds in the project vicinity.

In conclusion, temporary construction noise would not cause any impact to or take of the species. While construction noise could affect wildlife within 100 feet of the project area, the highway is a linear feature that already has loud noises, which wildlife is likely already adapted to or avoiding. Noise would not have an additional impact to nesting birds and their habitat.

Comment #5: Project Impacts to Bats

Issue: Inadequate bat reconnaissance work completed. Given the abundant evidence of bat presence, night surveys should be performed to ensure a maternity colony and/or day roosting is not occurring on the structure.

As mentioned in Section 2.3.4, Animal Species, bat habitats are found within the Biological Study Area and the project presumes the presence of several bat species. Specific details on bat surveys conducted for the project are documented in the Natural Environment Study. Based on the Natural Environment Study, various bat species are likely using the bridge as night roosting habitat, as there was

staining in the corners of bridge and pier walls that is indicative of night roosting bats. No day roosting evidence was found nor was there any suitable day roosting habitat. Because there is no evidence of day roosting or a maternity colony, nor is there features on the existing bridge to support such a colony, Caltrans has determined that there are no maternal colonies present. If night surveys were to be performed, they would demonstrate the presence of bats because bats are using the Santa Maria River corridor as foraging habitat and are resting in night roosts under the Santa Maria River bridge. Surveys that confirmed the presence of bats at night would not confirm that bats are day-roosting in the Santa Maria River bridge, since it is known that bats are present at night to forage.

There are no internal spaces or cavities on the bridge structures that could be supporting day-roosting bats that cannot be seen by surveyors, therefore surveyors were able to definitively confirm the bridge structures do not support day-roosting bats. Although it has been occasionally demonstrated that bats can use abandoned swallow nests and drain holes as day roosts, no other evidence that bats could be roosting during the day indicated that was the case on this bridge. There was no evidence of bat guano underneath or nearby the swallow nests or drain seeps in the bridge, so there was no indication to assume a bat would be present in these areas.

No work will occur at night on the project, so there will be no direct impact to night-roosting bats that are known to be present in the Biological Study Area. No mitigation for those species was required due to full avoidance of night roosting bats. Section 2.3.4, Animal Species, discusses avoidance and minimization strategies to ensure that no unmitigated impact to the night-roosting bats will occur. This includes ensuring that no bats are present when the bridge is deconstructed. The new bridge structure will be built before the old structure is completely removed, allowing bat roosting to naturally transfer from the existing bridge to the new bridge. Furthermore, Caltrans will ensure that suitable bat habitat would be provided on the new bridge structure. In addition to night roosting habitat being replaced on the new bridge, day roosting habitat will also be installed on the new bridge. The project will install Oregon wedges, and bat boxes for day roosting habitats on the new bridge structure. The installation of day roosting habitat on the new bridge will provide bat species with future day roosting habitat if bat species find it suitable. Weep holes and expansion cracks are not currently being used by the bats on the existing bridge, so constructing these features on the new bridge are not proposed.

All potential habitat is going to be replaced in kind, and additional day roosting habitat not present on the existing structure will be

constructed, so no displacement is anticipated from this project. Bat utilization of the new structure may be noted in post-construction reports for the anticipated 1600 permit, if such use is observed, but post-construction reporting is not anticipated to be required as there will be no impacts to day-roosting habitat. The mitigation measures presented in the Mitigated Negative Declaration are anticipated to be sufficient for the project as shown by the information presented above and previously discussed in Section 2.3.4, Animal Species.

California Department of Fish and Wildlife recommended mitigation measure:

MM-BIO-1-Protocol Surveys and MND Recirculation

CDFW recommends protocol surveys be conducted by a qualified biologist to determine the presence of California red-legged frog, western spadefoot, Swainson's hawk, southwestern willow flycatcher, and least Bell's vireo. Surveys should be conducted within the Project and an adjacent 500-foot buffer and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines, §15125).

Surveys for these species should follow accepted scientific protocol to allow the Department to determine the extent of impacts to the species associated with the Project and provide meaningful avoidance, minimization, and mitigation measures. The Department recommends the MND be recirculated after these surveys are completed to fully disclose the potential impacts to these species.

The MND should be recirculated after these surveys are completed to fully disclose the potential impacts to the number and kind of California red-legged frog, western spadefoot, Swainson's hawk, least Bell's vireo, and willow flycatcher.

Caltrans Response:

Please see response to Comment #4 and Section 2.3.4 Animal Species.

California Department of Fish and Wildlife recommended mitigation measure:

MM-BIO-2-CESA

Mitigation Measure: *CDFW recommends initiating consultation for this Project under CESA.*

Caltrans Response:

Caltrans will coordinate with the California Department of Fish and Wildlife for all permits required for the project. Formal consultation would be conducted prior to project construction.

**California Department of Fish and Wildlife recommended mitigation measure:
MM-Bio-3-Habitat Mitigation**

Mitigation Measure: CDFW recommends that Caltrans develop mitigation strategies, with specific performance criteria, that appropriately offset detrimental impacts to the aforementioned listed species (including SSC) and their associated habitat. The mitigation site should provide equivalent function/value, be protected with a conservation easement (or equivalent) and include appropriate management and monitoring with sufficient funding to ensure long-term protection of the habitat. To account for unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore would not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be pursued. If off-site mitigation is selected, CDFW recommends it be at a state-approved mitigation bank or via an entity that has been approved by CDFW to hold and manage mitigation lands pursuant to AB 1094 (2012), which amended Government Code, sections 65965-65968. All mitigation and mitigation plans should be provided in advance of any Project entitlements and the MND should include the specific performance standards detailed in these plans. CDFW can provide guidance to Caltrans regarding appropriate mitigation ratios.

Caltrans Response:

The Mitigated Negative Declaration proposes several measures to avoid, minimize and mitigate for biological resources that have the potential to be impacted by project related activities which can be found in Section 2.3, Biological Resources. Additional measure details and/or new additional measures required by permitting agencies would be developed during permit coordination and consultation. All measures proposed on the project will be approved by the appropriate responsible agency prior to project construction.

**California Department of Fish and Wildlife recommended mitigation measure:
MM-Bio-4-Noise Monitoring**

Mitigation Measure: CDFW recommends monitoring noise generated by Project operations during construction and post-construction operations to ensure noise from the Project does not affect wildlife in the adjacent wetland/riverine/upland habitat. The MND should set acceptable noise thresholds that would be part of a long-term monitoring and reporting program to ensure impact to adjacent habitat is below a threshold that would have an adverse effect. The MND

should provide noise and vibration analysis with contour maps, and provide specific avoidance, minimization, mitigation, monitoring and reporting commitments to assure identified minimization measures are effective.

Caltrans Response:

Please see response to Comment #4 for anticipated temporary noise impacts. The project will replace the existing bridge with a new bridge but will not alter the existing highway capacity, so post-construction noise levels are not anticipated to change as a result of the project.

California Department of Fish and Wildlife recommended mitigation measure:

MM-Bio-5-Consturction Monitoring

Mitigation Measure: *CDFW recommends the Project restrict use of equipment and lighting to hours least likely to disrupt wildlife (e.g., not at night or in early morning before 9am). Generators should not be used except for temporary use in emergencies. Power to sites can be provided by solar PV (photovoltaic) systems, cogeneration systems (natural gas generator), or small wind turbine systems. CDFW recommends use of noise suppression devices such as mufflers or enclosure for generators. Sounds generated from any means should be below the 55-60 dB range within 50-feet from the source.*

Caltrans Response:

Measures to address temporary construction related disturbances are presented in Section 2.4, Construction Impacts. The project currently does not plan on conducting construction activities at night.

California Department of Fish and Wildlife recommended mitigation measure:

MM-Bio-6-Bats

Mitigation Measure: *CDFW recommends bat surveys be conducted by a qualified bat specialist to determine bat presence within the Project and within a 500-foot buffer and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines, §15125). CDFW recommends the MND include the use of acoustic recognition technology to maximize detection of bats and determine species presence, for disclosure in the CEQA document. Bats in southern California can be active year-round, however, all potential breeding species are most active between March 15 and September 15. Surveys should be conducted at different times of year for at least one year and include at least one survey in the middle of the above dates and at least 1 in fall/winter during periods of warm*

weather. Each bat species has unique habitat needs, such as specific gap size of cracks and seasonality, that should be used to formulate appropriate mitigation into the Project CEQA document and to minimize impacts to sensitive bat species. The MND should document the presence of any bats and include species specific mitigation measures to reduce impacts to below a level of significance. The mitigation for bats using swallow nests will be very different from the mitigation for bats using bridge cracks or holes.

Caltrans Response:

Please see response to Comment #4. Bat species that have the potential to be affected by the project and project proposed measures for potentially affected bat species are discussed in Section 2.3.4, Animal Species. Caltrans will conduct formal consultation with California Department of Fish and Wildlife to confirm project measures and obtain project permit prior to project construction.

California Department of Fish and Wildlife recommended mitigation measure:

MM-Bio-7-Bats

Mitigation Measure: *CDFW recommends any new bridge be designed to include design features to replace niches of the bridge currently used by bats including allowing future swallow nests to be rebuilt. Suitable conditions required for swallow nesting habitat include horizontal ledges or rough vertical surfaces with a sheltered overhang, allow swallow to freely enter and exit nests, and ensure a design to deter predators. New bridge design should also include weep holes, (faux) expansion cracks to mimic any current bat habitat, and any other bridge feature that currently supports bat roosting.*

Caltrans Response:

Please see response to Comment #5 and section 2.3.4, Animal Species.

California Department of Fish and Wildlife recommended mitigation measure:

MM-Bio-8-Bats

Mitigation Measure: *Prior to the demolition of the current bridges, temporary nesting/roosting habitat should be provided. Nesting structures must be created before the onset of demolition activities during a period bats are active and able to move to the new roosting habitat.*

Caltrans Response:

Please see response to Comment #5 and section 2.3.4, Animal Species.

California Department of Fish and Wildlife recommended mitigation measure:

MM-Bio-9-CEQA-Rare Plants

Mitigation Measure: Any mitigation for CEQA-rare plant impacts should include specific, measurable criteria for success. Monitoring for CNPS California Rare Plant Ranked (CEQA-rare) plants should occur for a sufficient period to allow trends to be analyzed and demonstrate the occurrence is stable over time. No negative trend in CEQA-rare plant individuals (counted separately as flowering, seed set and non-flowering individuals), and no positive trend in non-native plant cover should occur over the monitoring period. CDFW recommends a ratio of at least 2:1 for both the acreage and number of plants impacted.

Caltrans Response:

Please see response to Comment #4 and section 2.3.3, Plant Species and Section 2.3.5, Threatened and Endangered Species. The project will include at minimum a one year establishment period for plant restoration sites.

California Department of Fish and Wildlife recommended mitigation measure:

MM-Bio-10-CEQA-Rare Plants

Mitigation Measure: CDFW recommends a Documented Conservation Seed Collection of the impacted rare plant species be made and deposited at either Santa Barbara Botanic Garden or the California Botanic Garden (formerly known as Rancho Santa Ana Botanic Garden). A Documented Conservation Seed Collection is when seed from a CNPS-ranked and/or CESA-listed plant species is collected and stored as part of a permanent genetic collection in a protected location. This collection preserves the genome, and any unique alleles that are present in any given occurrence, for future study and reintroduction projects.

Funding should be provided to maintain the collection, as well as conduct periodic germination and viability tests, in perpetuity. Documented conservation collections (long-term storage) are important for conserving rare, gene pool representative germplasm designated for long-term storage to provide protection against extinction and as a source material for future restoration and recovery.

Caltrans Response:

Please see Section 2.3.3, Plant Species and Section 2.3.5, Threatened and Endanger Species. Although special-status plant habitat does have the potential to occur within the Biological Study Area, no special-status plant species are anticipated to be found within the project site and collecting special-status plant species seeds is not anticipated to be possible.

California Department of Fish and Wildlife recommended mitigation measure:

MM-Bio-11-CEQA-Rare Plants

Mitigation Measure: *A weed management plan should be developed for the Project area and implemented during the duration of this Project. On-going soil disturbance promotes establishment and growth of non-native weeds. As part of the Project, non-native weeds should be prevented from becoming established. The Project area should be monitored via mapping for new introductions and expansions of non-native weeds.*

Caltrans Response:

Please see Section 2.3.6, Invasive Species. In addition, the project will include measures from Section 2.3.2, Wetlands and Other Waters, and Section 2.3.5, Threatened and Endangered Species to remove invasive species from the project area and replace with native vegetations.

Comment from the Department of Toxic Substances Control

June 5, 2020

Submitted by Stacy Weckesser, for Gavin McCreary, via email attachment.

Dear Mr. Fowler:

The Department of Toxic Substances Control (DTSC) received a Mitigated Negative Declaration (MND) for the Santa Maria Bridge Replacement Project. The California Department of Transportation (Caltrans) proposes to replace the Santa Maria River Bridge (49-0042) on State Route 1 at the border of Sant Luis Obispo Count and Santa Barbara County, north of the city of Guadalupe. A new bridge structure would be built next to the existing bridge, and the existing bridge would be removed when construction of the new bridge structure is completed. The new bridge structure would conform to current Caltrans design and safety standards. The project would also realign the bridge approaches, replace native vegetation and relocate utilities.

DTSC recommends that the following issues be evaluated in the MND Hazardous and Hazardous Materials section:

The MND should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous waste/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The MND should also identify the mechanism(s) to initiate any required investigations and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

Refiners in the United State started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emission from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soil still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project describe in the MND.

If any sites within the project area or sites located within the vicinity of the project have been used or are suspected of having been used for mining activities, proper investigation for mine waste should be discussed in the MND. DTSC recommends that any project sites with current and/or former mining operations onsite or in the project site area should be evaluated for mine waste according to DTSC's 1998 Abandoned Mine Land mines Preliminary Assessment Handbook (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/11/aml_handbook.pdf).

If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical

Transformers

https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Guidance_Lead_Contamination_050118.pdf).

If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to DTSC's 2001 Information Advisory Clean Imported Fill Material (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/SMP_FS_Cleanfill-Schools.pdf).

If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the MND. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 Interim Guidance for Sampling Agricultural Properties (Third Revision) (<https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Ag-Guidance-Rev-3-August-7-2008-2.pdf>).

DTSC appreciates the opportunity to comment on the MND. Should you need any assistance with an environmental investigation, please submit a request for Lead Agency Oversight Application, which can be found at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2019/09/VCP_app-1460.doc. Additional information regarding voluntary agreements with DTSC can be found at: <https://dtcs.ca.gov/brownfields/>.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,

Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substance Control

CC: (vial email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Ms. Lora Jameson, Chief
Site Evaluation and Remediation Unit
Department of Toxic Substances Control
Lora.Jameson@dtsc.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

Caltrans' response to the Department of Toxic Substances Control

Thank you for your comments.

The discussion of Hazardous Waste Materials is presented in the beginning of Chapter 2 of the Mitigated Negative Declaration and is based on information presented in the Hazardous Waste Initial Site Assessment Memorandum that was prepared for the project.

The Santa Maria River Bridge Replacement project on State Route 1 has a very low potential to encounter or disturb hazardous waste/substances because available data for the area suggest that the presence of hazardous waste/substances within the project site is expected to be very low. There are no known historic hazardous sites within the project limits and the project is not anticipated to encounter previously unknown hazardous sites during project construction. There are no known future sites or activities that are planned to occur within the project limits that have the potential to store or generate hazardous waste/substances. It is Caltrans standard practice to investigate the areas surrounding the project site for the presence of potentially hazardous waste/substances. It is Caltrans standard practice to avoid disturbing or obtaining potentially hazardous waste sites. If any hazardous waste/substance are encountered during project construction, Caltrans would stop work in the affected area and qualified personnel will conduct investigations to determine the characteristics of the hazardous waste/substances. After investigations are completed, the collection, and removal of any hazardous waste/substances from the project site would be conducted by qualified personnel. Any hazardous waste/substances hauled off site would be disposed of properly at a facility that can handle the hazardous waste/substances. Soil or ground water sampling would be conducted to confirm that the identified hazardous waste/substances have been removed from the affected area. Project construction in the affected area would resume after removal of hazardous waste/substances are completed. Caltrans requires spill kits be kept on-site at all times during project construction to minimize accidental spills and release of substances. If hazardous substances are accidentally spilled or released during construction, work in the affected area would be stopped and the spill or release would be appropriately contained to minimize the affected area. After the spill or released is controlled, the hazardous substances would be collected

and disposed of appropriately by qualified personnel. If necessary, soil or water sampling would be taken to confirm hazardous substances have been effectively removed from the affected area before work can resume in the affected area.

The existing bridge structure and roadway prism is not anticipated to contain substantial amounts of hazardous materials. It is anticipated that if hazardous materials are encountered in the project site they would be found in low concentrations and would consist of previously known hazardous materials that are already expected to be found on bridges and roadways such as, but not limited to, lead based paints, and Aerially Deposited Lead. The project will require the use of potentially hazardous materials and substances during construction, but the project will not generate hazardous waste/substances during construction or during operation after construction is complete.

The project will include Caltrans' standard practices to test for and control potentially hazardous materials that have the potential to occur within the project area. These tests for hazardous waste materials and substances are carried out for all Caltrans' projects that have any potential to encounter hazardous waste materials and substances. Hazardous waste testing will be conducted prior to project construction to ensure that any hazardous waste/substances identified would be properly handled prior to and/or during construction of the project. Hazardous waste testing that may be required for the project will include, but is not limited to, asbestos containing materials, naturally occurring asbestos, aerially deposited lead, treated wood waste, agricultural chemicals, contaminated soils and lead containing paint. If any hazardous waste/substances are identified in the project area, Caltrans will ensure that the appropriate standards and measures are carried out to comply with State and Federal requirements to ensure that hazardous materials/substances are properly handled, transported and disposed.

Within the project area, there are no sites that have been used or are suspected of having been used for mining activities. The project is located in an area that has historically been involved in agriculture and agricultural practices are still occurring in the project area.

It is Caltrans standard practice to investigate the history of a structure and conduct testing on the structure for potentially hazardous materials/substances prior to the demolition of the structure. If any hazardous materials are identified during testing or encountered during demolition, hazardous materials would be properly collected and processed in compliance with State and Federal requirements.

It is Caltrans standard practice to avoid importation of contaminated soils into a project site. If contaminated soils are identified during project construction, it would be collected, and processed appropriately to comply with State and Federal requirements.

Comment from The City of Guadalupe

June 4, 2020

submitted by Larry Appel, via U.S. Postal Service

Mr. Fowler:

The City of Guadalupe welcomes this opportunity to review and comment on the recently released Draft Mitigated Negative Declaration for the Santa Maria River Bridge Replacement Project. While only a very small piece of the project actually falls within the City's boundary, we are the most affected community. With the exception of our Comment #9, we will focus on how to minimize impacts to Guadalupe and to ensure that the final document will be as accurate as possible. Please consider the following comments:

1. Page 25 – Please add “Guadalupe Street” in parentheses following the second use of State Route 1 in paragraph 5.
2. Page 27 – Please share with the City the options you are considering for the rails and railings noted in Goal #1. We would like you to work with two local committees in this endeavor, Resilience Guadalupe and Amigos del LeRoy park (contact: tombranddeberry@rcdcc.org).
3. Page 27 – Goal #3, we request that in addition to the textured materials that a coat of anti-graffiti product be applied to the surface to ensure an easier cleanup of any tagging.
4. Page 36 – Please provide the City a copy for our review of the draft Stormwater Pollution Prevention Plan (SPPP) when it is completed.
5. Page 48 – The Acoustical Analysis section indicates that a study was prepared in October 2018. Will you please provide an electronic copy of the report or provide a link to the report on your website. After reviewing it, we may send additional comments prior to July 2nd.
6. Page 51 – Please specify that reseeded will utilize a native seed mix as noted in #6 on page 54.

7. Page 54 – Please provide more details as to the criteria for tree replacement (1:1 replacement vs. 3:1 replacement). Are there certain species that only require a 1:1 and others that require a 3:1, or is it based on size of the tree being removed? Please clarify within the text and then provide a clearer mitigation measure.
8. Page 60 – Under Mitigation #2 for Bats, please quantify the “night work” hours or provide other quantifiable measures (e.g. 1 hr. after sunset to 8 a.m., etc.)
9. Pages 69-70 – The report indicates that there is the potential for take of the species California red legged frog (CRLF) and notes that “a Programmatic Biological Opinion (BO) would be obtained for potential impacts to CRLF.” This mitigation measure (MM) does not provide the necessary timing by which this opinion would be requested. The MND assumes that the BO is going to be issued and therefore assumes that the CRLF will be able to be relocated if necessary. Perhaps a BO has been issued since release of this draft MND. If so, that information should be updated. However, at this time, you MM is unenforceable and therefore cannot be utilized as effective mitigation for an identified potentially significant impact. CEQA Section 15070(b)(1) allows a MND to be prepared where potentially significant effects have been identified. However, before release to the public of the draft document, mitigation must be included that would “avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.” Without a Biological Opinion in hand at the time of release of this draft MND, the identified mitigation is not sufficient. The finalization of the draft MND should be delayed until Caltrans has the BO that allows your identified biologist to address any CRLF within the project area.
10. Page 68 – The steelhead discussion on this page start out saying, “the project does not have the potential to take any Southern California Steelhead because all in-stream work would occur when the Santa Maria River is dry and free from aquatic species.” Based on this statement of fact, many of the MMs (3-13) on page 70 may be eliminated.
11. Page 80 – We understand that the welcome sign located south of 12th street may be located within Caltrans right-of-way. If so, the City will find an alternate location outside of the R-O-W to reconstruct it. If it can be shown that the City obtained a permit for the sign, the we will request that Caltrans be responsible for the relocation or reconstruction.
12. Page 81-82 – (8b) Please quantify the impact areas by identifying areas R-1 thru R-5 as sensitive receptors that will require noticing.

(8c) Please modify this MM to state that no night construction is permitted, based on previous MM for Bat protection (pg. 60). (8i) Please include a local phone number on construction sign and all notices to property owners for possible noise complaints.

13. Page 82 – Please revise MM 12 to state that Caltrans will work directly with the city’s Resilience Guadalupe and Amigos del LeRoy Park committees.
14. Page 129 – Please remove any reference to the Guadalupe 2040 Draft General Plan as it was a class project prepared by Cal Poly students and was never adopted. The City has an RFP out for review to formally start the 2040 General Plan process. Currently, the City is guided by the adopted 2002 General Plan.
15. Page 179 – Community Character needs to be expanded to the wording used on page 82.
16. We have identified a number of mitigation measures where revisions are requested. If you agree with us, please carry those revisions over to Chapter 3 where you list all the mitigation measures together.

Comment 9 above is very important and we therefore request that you keep the City informed as to the resolution of this issue. We request that you provide the City with a hard copy of the final MND with all amendments and comments. We will make the document available to staff and the public throughout the construction project.

Thank you for your time in considering our comments.

Regards,

Larry Appel, Contract Planning Director
Guadalupe Planning Department

cc: Todd Bodem, City Administrator
Philip F Sinco, Contract City Attorney
Peggy Woods, Contract Planner
Tom Brandeberry, RCDCC

Caltrans' response to the City of Guadalupe

Thank you for your comments.

In regard to your individual comments:

1. The term "Guadalupe Street" has been added in parentheses after mention of State Route 1 as requested.
2. A Caltrans landscape architect will coordinate with the City when the railing design selection process occurs.
3. Caltrans will investigate the potential of applying anti-graffiti product in conjunction with textured materials.
4. The Stormwater Pollution Prevention Plan will be produced by the assigned project contractor. Caltrans will request that the assigned project contractor share the draft Stormwater Pollution Prevention Plan with the City. A project contractor will be assigned after the project has been approved and project funding has been obtained.
5. Caltrans has provided the City with a copy of the Noise Study Report that was completed for the project on October 18, 2018.
6. Measure 2 for natural communities has been adjusted to include native seed mix.
7. Clarifications has been made to mitigation measure 5 in Section 2.3.2, Wetland and Other Waters. The project will at minimum replace any removed trees at a ratio of 1 to 1. The final replacement ratio may be higher, up to 3 to 1, based on permit conditions. At this time Caltrans does not know the specific tree size, species or location that would be used to determine the final replacement ratio required for the permits, thus a range of typical ratios for tree replacement in jurisdictional areas was provided. The Final replacement ratio will be decided by the permitting agencies based on their review of the project. The permitting agencies, in consultation with Caltrans biologist, would make the final replacement ratio part of the permit conditions for the project. Caltrans anticipates that at a minimum, the permitting agencies would require a replacement ratio of 1 to 1 for trees that fall under various wetlands, waters and riparian jurisdictional areas as identified in Appendix D of the Environmental Document. Final permit conditions for the project would be determined after permit coordination with California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and Regional Water Quality Control Board are all completed. Caltrans anticipates all replacement trees

will be native species that are appropriate for the region and the habitat.

8. The hours of work restriction will be from 1 hour after sunset to 1 hour before sunrise, which will vary based on the time of year.
9. The Biological Opinion and Programmatic Biological Opinion required for the project were obtained prior to the approval of the draft environmental document. Information on the Biological Opinion and Programmatic Biological Opinion has been updated in Chapter 1, Section 1.7, Permits and Approval Needed. Typed copies of the Biological Opinion and Programmatic Biological Opinion are presented in Appendix G, Required Consultation and Concurrence Documentation. Mitigation measures required for the Biological Opinion and Programmatic Biological Opinion have been included in the document.
10. Although the project will only allow work in the stream when the Santa Maria River is dry and have no potential to impact steelhead species, the project will still implement measures to protect potential steelhead critical habitat areas. Protecting potential steelhead critical habitat areas while the river is dry during construction will minimize disturbance to existing potential steelhead critical habitat areas and minimize disturbances associated with the restoration of potential steelhead critical habitat areas after construction.
11. Caltrans records shows that the welcome sign located south of 12th Street is within Caltrans' right-of-way and that the City had obtained a permit from Caltrans to install the welcome sign within Caltrans' right-of-way. Caltrans will request that the City of Guadalupe relocate the welcome sign prior to project construction. Caltrans will coordinate with the City during the removal of the existing sign and during the relocation process of the new sign to confirm existing and future responsibilities involved with the welcome sign.
12. For 8b, notification will be given via mail to all residents within 100 feet of the project, including locations R-1 through R-5 identified as sensitive receptors. For 8c, night work is currently not anticipated for project completion. For 8i, project contact information will be posted near the project site to inform the local public. Public complaints on the project can be directed to Caltrans District 5 Public Affairs department at (805) 549-3318 or via email at: info-d5@dot.ca.gov.

13. Measure 12 for Section 2.4 Construction Impacts has been revised to include coordination with Resilience Guadalupe and the Amigos de Leroy Park Committee.
14. Reference to the Guadalupe 2040 General Plan was removed and replaced with the adopted 2002 General Plan.
15. The community character measure has been revised.
16. Measures found throughout the document are reflected in Appendix F, Avoidance, Minimization and/or Mitigation Summary.

Comment from the Board of the Rancho de Guadalupe Historical Society and Museum

May 25, 2020

Submitted by Shirley Boydstun, via email attachment.

Mr. Fowler:

The Board of the Rancho de Guadalupe Historical Society and Museum is pleased to read of the plans to replace the bridge over the Santa Maria river on Highway One in the next years and lend our support.

We thought you might appreciate this photo (copy) we have on exhibit at the Museum of the bridge circa 1916-18. And we suggest an updated version of the sign upon completion.

If the Historical Society can be of further assistance, please call Mrs. Dolores Pelton at 805-343-2527 or Shirley Boydstun at 805-343-1223. We are currently unable to be open to the public.

Please enjoy our brochure, and hopefully you can visit on of these days.

Shirley Boydstun, secretary

Caltrans' response to Board of the Rancho de Guadalupe Historical Society and Museum

Thank you for your comment and thank you for sharing your museum materials with us. Unfortunately Caltrans would not be able to install an updated version of the sign that is shown in the photo you shared from circa 1916-1918. The standards for roadway signs are much stricter now and any new signs would need to be properly vetted prior to installation. Currently there are no plans to install any roadway signs

above the roadway on the new Santa Maria River Bridge. Caltrans would like to thank you for your support of the project.

Comment from Shelden Flowers

May 23, 2020

Submitted via email

Hi Matt,

Thanks for all your help and consideration in replacing the highway one bridge near Guadalupe. I live in Guadalupe and use the bridge daily.

If what I read is correct, and the bridge will be replaced adjacent to the current bridge. That is a great idea so we can continue to drive north without major detours.

If I may, I ask that they make it 4 lanes so it is prepared for future expansion (as so much traffic flows out of Guadalupe) as well as a WIDE areas dedicated to the many road bikes groups riding up and down the coast on highway one. Many times there are always GROUPS of bicyclist riding together and it is dangerous for them as semis and vehicles fly past them and currently, it is very dangerous.

Thank you for your time!

Shelden Flowers

Caltrans' response to Shelden Flowers

Thank you for your comment.

Based on current regional planning, existing traffic volumes and anticipated future traffic volumes for this segment of State Route 1, Caltrans has not identified a current need to increase capacity on the bridge to 4-lanes. Caltrans regularly conducts traffic counts and predicts future traffic volumes on individual projects and on a regional scale. Once Caltrans have determined that existing traffic volumes and predicted future traffic volumes on this segment of State Route 1 reach the point where a 4-lane facility is considered to be necessary, Caltrans would develop an appropriate project at that time. The current design of the new bridge will include a 12-foot-wide lane with an 8-foot-wide shoulder on both the northbound and southbound lanes. The addition of wider shoulders on both the northbound and southbound lanes will improve bicycle access on the bridge by providing greater

separation distance between bicyclists and vehicles. In addition, the new bridge will include an 8-foot-wide protected pathway that can also accommodate bicycle and pedestrian use.

Comment from Garret Matsuura

May 30, 2020

Submitted via email

Mr. Fowler-

I hope this email finds you well. As a resident of Guadalupe, I wanted to pass on my thoughts to you regarding the forthcoming replacement bridge project near Guadalupe on Highway 1. The alternatives present in the article and the initial study (05-SB-SLO-01- PM 50.3/50.6; PM 0.0/0.3 EA 05-1H440 and Project ID 0516000074) were appreciated and I agree that Alternative 2 – Build Alternative is the most favorable way to go. A few things I would like Caltrans to consider:

1. As the bridge over Highway 1 is the primary north-bound exit point out of town, I would greatly appreciate if work on the bridge could be done at times of the day when traffic was not impacted as much as it is in the early morning or late afternoon. Early morning in particular can greatly impact traffic as the bridge funnels many of the farm workers that access the northern fields. Even with the limited amount of work that I have seen done on the bridge in the past few years, traffic back up very quickly through town. When it's that bad, it can also affect residents trying to get to work or more importantly, their children to school when they attend schools in the Lucia Mar Unified Scholl District.
2. It was noted that there would be (potential) future studies/reviews of the plan as it would integrate with the Santa Maria River Levee Train. I wanted to emphasize the need for Caltrans to communicate with the City of Guadalupe to make sure that the community was given the opportunity for public comment on the bridge and trail integration.
3. As one of the founding members of a fledgling Guadalupe Business Associated (currently in the formation process), I would request that there be updated information made available – perhaps via email list? – where updates and/or changes to the plan could be sent to interested parties.

Your consideration on these items is appreciated as it the time and effort you have and continue to spend on this project. Fixing the bridge

can only make transit safer and travel to the town more pleasant experience for locals and visitors alike.

Sincerely,

Garret Matsuura
garret@arclightmedia.com
805.219.0022

Caltrans' response to Garret Matsuura

Thank you for your comments.

Thank you for your support of the Santa Maria River Bridge Replacement project on State Route 1. In regard to your comments:

1. Caltrans is aware of the project's potential to temporarily affect local traffic conditions during project construction. That is why the current construction strategy for the project is to maintain the existing bridge structure for traffic use until the new bridge structure is completed. The current construction strategy would result in the least amount of disturbance to local traffic and public travel. During project construction, traffic will continue to use the existing bridge, while the new bridge is being built. This will allow the project to avoid the need for road or shoulder closures and lengthy detours. Once the new bridge is capable of supporting both the northbound and southbound traffic, all traffic will be directed to the new bridge. As construction of the new bridge is being completed, the remains of the existing bridge will be removed at the same time. During the entire bridge construction process, traffic is expected to continue to flow through the area with little or no disturbance. Daily construction activities will likely occur over a period of an 8-hour day and there is the potential for project construction to shift those 8 hours earlier or later in the day to help minimize local disturbances. Construction activities that have the potential to greatly disrupt traffic will be planned to occur outside of normal peak hours for the area.
2. Caltrans is aware of the future plans to expand the Santa Maria River Levee Trail, but information currently available is only conceptual. Because there are no developed plans, Caltrans is not able to adequately evaluate how the Santa Maria River Bridge Replacement Project may or may not affect the future Santa Maria River Levee Trail. Instead, Caltrans has tried to design the new Santa Maria River Bridge in such a way as to avoid conflicts with potential trail routes in the project vicinity. Caltrans anticipates that when the Santa Maria River Bridge is completed, it will not hinder

or deter the development of the Santa Maria River Levee Trail through the project area.

3. Caltrans is in constant communication with local government agencies and community entities on both state and local transportation projects. Updates on this project can be found on the Caltrans District 5 website at www.dot.ca.gov/caltrans-near-me/district-5 or by contacting the Caltrans District 5 Public Affairs department at (805) 549-3318 or via email at: info-d5@dot.ca.gov.

Comment from Jackson Hurst

June 3, 2020

Submitted via email

Name – Jackson Hurst

Address – 4216 Cornell Crossing, Kennesaw, Georgia 30144

Comment – I have reviewed the environmental document for the Santa Maria River Bridge Project and I agree and support the Build Alternative (Alternative 2) because it will build a safer and more resilient Santa Maria River Bridge that will protect it against scouring and alkali-silica reactions in the future.

Caltrans' response to Jackson Hurst

Thank you for your comment.

Caltrans would like to thank you for your support of the project.

List of Technical Studies

- Structures Preliminary Geotechnical Report (November 7, 2016)
- Air Quality and Greenhouse 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/Environmental Assessment document, please send your request to the following email address: Info-d5@dot.ca.gov

Please indicate the project name and project identifying code (under the project name on the cover of this document) and specify the technical report or document you will like a copy of. Provide your name and email address or U.S. postal service mailing address (street address, city, state and zip code).

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