Bradley Capital Preventative Maintenance Project

On U.S. 101 in Monterey County, near Bradley, from the East Garrison Off-ramp to the Jolon Road Undercrossing 05-MON-101 Post Mile R1.9/R9.7

Project ID Number 0519000035

Initial Study with Proposed Mitigated Negative Declaration



Volume 1 of 2

Prepared by the State of California Department of Transportation

May 2025



General Information About This Document

What's in this document:

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

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans District Office at 50 Higuera Street, San Luis Obispo, California 93401. The document can also be viewed on the Caltrans website at: https://dot.ca.gov/caltrans-near-me/district-5.
- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments and/or requests for a virtual public meeting to Caltrans by the deadline. Submit comments via U.S. mail to: Dianna Beck, District 5 Environmental Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: Dianna.Beck@dot.ca.gov.
- Submit comments by the deadline: Midnight on June 2, 2025

What happens next:

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

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Perform Capital Preventative Maintenance and San Antonio River Bridge Rehabilitation on U.S. 101 from post miles R1.9 to R9.7 in Monterey County

INITIAL STUDY with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation
and

Cooperating Agencies: U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, National Marine Fisheries Service, California Department of Fish and Wildlife, Regional Water Quality Control Board Responsible Agency: California Transportation Commission

Jason Wilkinson

D5 Deputy District Director, Environmental Analysis
California Department of Transportation
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3/26/25

Date

The following individual can be contacted for more information about this document: Dianna Beck, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, CA 93401, phone 805-459-9406, email Dianna.Beck@dot.ca.gov.



DRAFT Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 05-MON-101 post mile R1.9/R9.7

EA/Project Number: 05-1K880/0519000035

Project Description

The California Department of Transportation (Caltrans) proposes to perform preventative maintenance (roadway repaving) and bridge replacements on U.S. 101 from post miles R1.9 to R9.7 in Monterey County. The primary scope of the project is to rehabilitate and extend the service life of the pavement on the roadway and shoulders within the project limits, replace the San Antonio River Bridges (44-0141L/R) at post mile R6.6, and replace the southbound North Bradley Undercrossing Bridge (44-0142L) at post mile R7.9.

Determination

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

An Initial Study has been prepared by Caltrans District 5. On the basis of this study, it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

The project would have no effect on agriculture and forest resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire.

The project would have less than significant effects to aesthetics, air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, tribal cultural resources, and utilities and service systems.

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

- Due to the reduced number of support structures for the proposed new San Antonio River Bridges, the project will result in a net reduction of structures within the streambed and riparian/streambank corridor. However, the project will have temporary impacts spanning three to four seasons at San Antonio River. Temporary impacts to jurisdictional areas will be restored at a 1-to-1 ratio. All trees removed within jurisdictional areas will be replaced at a 3-to-1 ratio for trees less than 12 inches in diameter at breast height and at a 10-to-1 ratio for trees equal to or greater than 12 inches diameter at breast height. Replacement plantings will include appropriate native tree and understory species. To ensure success, monitoring and an appropriate plant establishment period will be required, which will include regular inspections, weeding, and replacement.
- Impacts to roosting bats will be compensated through the development and implementation of a Bat Protection and Mitigation Plan during the final project design phase. Roosting habitat will be created on the new structures. The plan will include post-construction monitoring of roosts for five years.
- Caltrans will retain a Principal Paleontologist that meets Caltrans qualifications to prepare or oversee preparation of a Paleontological Mitigation Plan. If deemed necessary, Paleontological Monitoring during construction may be required as a component of the Paleontological Mitigation Plan.

Jason Wilkinson	
D5 Deputy District Director, Environmental Analys	sis
California Department of Transportation	
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Date	

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA). Caltrans as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act (NEPA). As CEQA lead, Caltrans has prepared this Initial Study with proposed Mitigated Negative Declaration for the project.

The project is programmed in the adopted 2024 State Highway Operation and Protection Program and is funded in the Bridge Rehabilitation and Replacement Program for delivery in Fiscal Year 2028-2029. The current total anticipated cost of the project is \$100,643,771, which includes approximately \$80,999,000 for construction. Additional funds will be programmed for the project. Construction is expected to start in the spring of 2029 and would span three to four years.

Caltrans proposes to rehabilitate and extend the service life of the pavement on the roadway and shoulders within the project limits. The project also proposes to replace the San Antonio River Bridges at post mile R6.6 and the southbound North Bradley Undercrossing Bridge at post mile R7.9. The scope of the project also includes improvement and repair of assets, as described in more detail in the project description.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to comprehensively address the bridges' structural deficiencies, extend the service life of the roadway within the project limits, restore drainage systems, and add traffic census (count) stations. The proposed goals of the project are the following:

- Improve bridge health condition and/or mitigate for bridge scour.
- Improve the ride quality and extend the service life of the pavement by rehabilitating the worn-out pavement.
- Restore failing culverts.
- Improve traffic census station data collection and maintain an efficient Intelligent Transportation System.

- Bring traffic safety devices (guardrail, guardrail end treatments, and guardrail connections to bridges) up to current design standards.
- Replace the sign panels to improve visibility and to meet current Federal Highway Administration standards. Replace signposts where sign panels are replaced.

1.2.2 Need

This project is needed for the following reasons:

- The Bridge Strategy Meeting Fact Sheet and the Bridge Inspection Reports state that delamination (where material fractures or separates into layers) has occurred in the concrete bridge elements, affected by alkalisilica reactivity and chlorides. Also, the August 15, 2024 Structure Maintenance and Investigation Hydraulics Inspection Report states that the San Antonio River Bridges are scour critical.
- Based on the Pavement Condition Report, the pavement within the project limits is exhibiting distress and degraded ride quality. Minor rehabilitation of the pavement in the form of repair and overlay is needed because, if left uncorrected, the pavement will continue to deteriorate, leading to more costly reconstruction.
- Culvert inspections show that several culverts within the project limits are in fair and poor condition and need to be replaced or repaired. Not repairing this deficiency could lead to embankment or pavement failure.
- Traffic census station improvements are needed to collect reliable traffic volume data. Traffic census stations are proposed to reduce worker exposure to high-speed traffic by eliminating the need to place pneumatic hoses within the ramp lanes.
- Caltrans has adopted the new Manual for Assessing Safety Hardware crash testing criteria as the new roadside safety hardware standard. Due to this change, the existing metal beam guardrail does not meet current standards.
- Many of the existing sign panels within the project limits do not meet the current Federal Highway Administration retro-reflectivity standards. Where sign panels are replaced, the signposts will also need to be replaced.

1.3 Project Description

The proposed project is located along U.S. 101 in Monterey County, near Bradley, from the East Garrison off-ramp at post mile R1.9 to the Jolon Road Undercrossing at post mile R9.7. The primary scope of the project is to

rehabilitate and extend the service life of the pavement on the roadway and shoulders within the project limits, replace the southbound and northbound San Antonio River Bridges (44-0141L/R) at post mile R6.6, and replace the southbound North Bradley Undercrossing Bridge (44-0142L) at post mile R7.9. The scope of the project also includes improvement or repair of related assets, as outlined below.

1.3.1 Project Elements

The project includes the following design elements:

Structures

The project would make the following changes to structures:

- The project would replace the southbound and northbound San Antonio River Bridges (44-0141L/R) at post mile R6.6. There are two build alternatives under consideration for the bridge replacement method. See Section 1.4.1 Build Alternatives for information about the two build alternatives.
- The project would replace the southbound North Bradley Undercrossing Bridge (44-0142L) at post mile R7.9. The southbound (left) North Bradley Undercrossing Bridge would be replaced with 3-foot-6-inch-deep precast/prestressed concrete box beam-type superstructure. The proposed bridge would be an approximately 100-foot-long and 42-foot-6-inch-wide single-span structure. The structure would be cast at the manufacturer's location, transported to the project site, and placed on top of supports. A concrete deck would then be poured on top. Slope paving would be necessary in front of both abutments.

This design would maintain the minimum vertical clearance of 16-feet-6-inches over North Bradley Road. This would allow trucks to pass under the bridge. The bridge would take approximately 134 working days to construct.

 The San Antonio River Bridge replacements would require two retaining walls north of the bridges. Adjacent to the northbound lanes, the retaining wall would be approximately 450 feet long. Adjacent to the southbound lanes, the wall would be approximately 520 feet long.

Roadway Rehabilitation

The project would rehabilitate the roadway as follows:

 The project would perform preventative maintenance by cold planing and overlaying the lanes and inside and outside shoulders with 0.20-foot rubberized asphalt concrete. This would occur on U.S. 101 through the entire project limits, aside from at the two bridge replacement locations. Severely distressed or failing asphalt pavement would be replaced with digouts (repair of more distressed areas of pavement through partial depth replacement). The replacement of the San Antonio River Bridges would require reconstruction of the pavement for approximately 470 feet before and 490 feet after the bridges. The proposed structural section is 0.90 foot of continuously reinforced concrete pavement, 0.25 foot of hot mix asphalt (Type A) and 0.70 foot of aggregate subbase.

- The project would replace shoulder rumble strips, traffic striping, and pavement markings.
- The project would widen the northbound and southbound outside shoulders from 8 feet to 10 feet for a short distance before and after the San Antonio River Bridges.
- The project would place shoulder backing to account for erosion or weathering at the edge of pavement.
- The project would also install a Type II slurry seal at the parking lots of both the northbound and southbound Camp Roberts Safety Roadside Rest Areas.

Guardrails and Barriers

The project would replace and upgrade guardrails and barriers:

• The project would remove existing guardrails and install Midwest Guardrail System features. Changing to Midwest Guardrail System and terminal end features could require widening the embankment to the hinge point to 4 feet wide in some locations. All proposed guardrails in the project would be constructed with steel posts and crushed shale for vegetation control. The project would upgrade all guardrails to current standards, including upgrading connections to bridges, upgrading terminal end treatments, and extending the guardrails, where needed. The guardrails at the Garrison Avenue Overcrossing (post mile R2.15) abutments would be replaced with concrete barriers to meet current safety standards.

Transportation Management System and Signs

The project would install new Transportation Management System elements and replace signs:

- The project would install five traffic census (count) stations at post miles R2.15, R3.21, R4.77, R7.94, and R9.55. The project would replace one existing census station at post mile R4.85.
- The project would replace and upgrade all sign panels that are not currently Type XI backing material within the project limits. This includes

replacing associated signposts. Twenty-five one-post signs and 15 two-post signs are planned for replacement.

Drainage Improvements

The project would improve drainage in the project area:

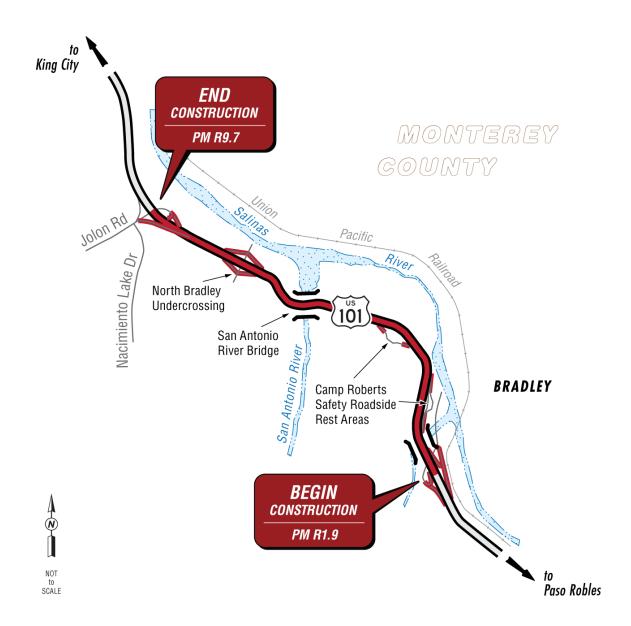
- The project would remove and replace existing dikes where appropriate.
- The project would replace four culverts and repair one culvert. The
 replacement method is anticipated to be open cut for three of the culvert
 replacements. Jack and bore would be needed for the culvert at post mile
 R7.78. The planned replacement and repairs are as follows:
 - Replace existing 24-inch reinforced concrete pipe with 24-inch reinforced concrete pipe and with a flared end section with rock slope protection at post mile R5.35.
 - Abandon the existing 4-foot by 4-foot reinforced concrete box and 36-inch reinforced concrete pipe and construct a new 48-inch reinforced concrete pipe at post mile R7.78. The new pipe would be installed by trenchless methods (jack and bore) to the east of the existing drainage system. Headwalls would be placed at each end. The existing median and gore drainage inlets are to be removed and replaced with a new drainage system. The median drainage inlet would be placed at the same station as the gore drainage inlet and connected with a 24-inch reinforced concrete pipe. North of the gore inlet, another 24-inch pipe would lead to a drainage inlet north of Bradley Road connected to a 24-inch reinforced concrete pipe draining north, adjoining to the 48-inch pipe headwall and outlet. Rock slope protection would be placed at the outlet.
 - Use a concrete collar to repair the first joint from the drainage inlet at post mile R7.92.
 - Replace 24-inch reinforced concrete pipe with 24-inch reinforced concrete pipe and a flared end section with rock slope protection at the outlet at post mile R9.16. Possible extension of this culvert is currently being evaluated because the outlet is within the clear recovery zone.
 - Replace 24-inch reinforced concrete pipe with new 24-inch reinforced concrete pipe and a flared end section with rock slope protection at the outlet at post mile R9.66, on the Jolon Road off-ramp.

See Figure 1-1 Vicinity Map and Figure 1-2 Project Location Map for project location information. See Figure 1-3 Work Location Detail map for a depiction of the proposed work locations.

Figure 1-1 Project Vicinity Map



Figure 1-2 Project Location Map



End Construction PM R9.7 Jolon Rd. **North Bradley** Undercrossing San Antonio River Bridges Camp Roberts Safety Roadside Rest Areas Bridge Replacements Culvert Replacements / Rehabilitation Locations Begin Construction PM R1.9 Pavement Rehabilitation 0 0.25 0.5 Miles

Figure 1-3 Work Location Detail Map

1.4 Project Alternatives

Two build alternatives and a No-Build Alternative are under consideration for the project.

The two build alternatives offer different designs for the replacement of the San Antonio River Bridges. The rest of the project scope is the same between the two build alternatives, including pavement rehabilitation, culvert replacements and rehabilitation, and replacement of the North Bradley Undercrossing. The common design features of the build alternatives are explained more fully in Section 1.4.1 below.

The two build alternatives—Alternative 1 and Alternative 2—are described below. The build alternatives would result in temporary impacts to environmental resources. All potentially significant impacts would be mitigated to a less than significant level. No net permanent impacts would result, as the new San Antonio River Bridges would have a reduced number of support structures from what is currently existing. The build alternatives would address the purpose and need of the project by replacing the San Antonio River Bridges, replacing the southbound North Bradley Undercrossing Bridge, rehabilitating the roadway, restoring culverts, improving traffic data collection, upgrading signs, and upgrading guardrails.

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are listed later in this chapter under "Standard Measures and Best Management Practices Included in All Build Alternatives."

1.4.1 Build Alternatives

The build alternatives under consideration were developed by Caltrans Structures Design and evaluated by an interdisciplinary team. Several criteria were taken into consideration when evaluating the various alternatives for the project, including the project's purpose and need, cost, design, schedule, construction strategies, and environmental impacts.

Alternative 1 and Alternative 2 present two different bridge designs for the replacement of the San Antonio River Bridges.

Alternative 1

Alternative 1 would replace the bridges with precast structures. This alternative would use 6-foot-2-inch-deep precast (prestressed) wide flange girder-type superstructures to replace the existing structures. The precast wide flange girders would be cast at the manufacturer factory location, transported to the project site and placed on top of supports; then a concrete deck would be poured on top. The use of precast wide flange girders would

facilitate faster construction since the girder would be cast in advance of being transported to the project site, in the manufacturing unit. This alternative would also eliminate the need for falsework during construction. With this alternative, the existing minimum vertical clearance of approximately 15-feet-1-inch over San Antonio Drive would be maintained.

Alternative 1 (precast structure) would require an estimated 686 working days for construction, over the course of three seasons.

Alternative 2

Alternative 2 would replace the bridge structures using the cast-in-place method. This alternative would use 5-foot-2-inch-deep cast-in-place prestressed concrete box girder-type superstructures, which would be cast at the project site, on the top of supports (abutments and piers). During casting, ducts are placed in girders through which the prestressing strands pass. Then, once the superstructures harden (achieve required strength), the girders are post-tensioned (strands are pulled and anchored). The use of cast-in-place prestressed concrete box girder-type superstructures would need falsework during construction. With this alternative, a minimum vertical clearance of approximately 18-feet-10-inches would be required over San Antonio Drive to satisfy minimum temporary (falsework) vertical clearance requirements.

Alternative 2 (cast-in-place) would require an estimated 940 working days for construction, over the course of four seasons.

Common Design Features of the Build Alternatives

Structures

Northbound and Southbound San Antonio River Bridges

Under both build alternatives, the project would replace the northbound and southbound San Antonio River Bridges. The bridges would be replaced to prevent further deterioration due to the effects of alkali-silica reactivity and chlorides. Without replacement, the bridge would eventually fail.

Both build alternatives require the same number, placement, and diameter of bridge piles. Twelve cast-in-drilled-hole-type bridge piles would be constructed. Each pile would be 96 inches in diameter. Both build alternatives would require construction in the San Antonio River floodplain. In addition, both alternatives would be eligible for construction with the same type of bridge rail and would have a very similar appearance from the view of the traveling public.

Both alternatives would eliminate bat day and maternity roosting habitat, requiring mitigation for these roosting types. Both alternatives would have many other similar biological effects. See Section 2.1.4 Biological Resources for more information.

Southbound North Bradley Undercrossing Bridge

Under both build alternatives, the project would replace the Southbound North Bradley Undercrossing Bridge using a precast/prestressed concrete box beam-type superstructure. As with the other bridge, this bridge would be replaced to prevent further deterioration due to the effects of alkali-silica reactivity and chlorides. Without replacement, the bridge would eventually fail.

Roadway Rehabilitation

Under both build alternatives, the project would rehabilitate the road surface of the lanes and shoulders, as well as in the parking lots of both northbound and southbound Camp Roberts Safety Roadside Rest Areas and widen the shoulder on either end of the San Antonio River Bridges, as deemed necessary. This would ensure an acceptable roadway condition and the continued operation of the roadway and rest areas for the traveling public.

Guardrail and Barriers

Under both build alternatives, the project would upgrade and extend the guardrails as needed to meet current Manual for Assessing Safety Hardware standards and meet the needs of the project design.

Transportation Management System and Signs

Under both build alternatives, the project would improve the traffic management system and signs as needed within the project limits. More specifically, the project would install five traffic census stations and replace one existing census station. In addition, all sign panels that are not currently Type XI backing material within the project limits would be replaced and upgraded. Worn out signposts would be replaced.

Drainage Improvements

Both build alternatives include replacement of four culverts (three reinforced concrete pipe culverts and one box culvert) that are at risk of failure. One of these culverts would be upsized to improve wildlife crossing opportunities for larger animals, including deer. Culvert replacement would be completed via open cut at three locations and via jack and bore at one location. One culvert would be repaired. No new culverts would be installed at new locations.

Construction Activities

During the final project design phase, prior to the official start of the construction phase, geotechnical boring investigations would be completed to gather data necessary for project design decisions. An estimated six to eight borings are anticipated to be necessary within the San Antonio River floodplain prior to construction. Test cores would be collected from varying depths to determine the geologic structure. Some of the borings would be done for a resistance test and would not involve collecting test cores. These borings would require the drill rig to be driven down the embankment to access the boring locations under the San Antonio River Bridges. In addition,

Positive Utility Location would be completed to positively identify the location of utilities prior to the start of construction. The methods for Positive Utility Location vary from above-ground detection to using a water hose to reveal utility lines beneath the surface.

The bulk of the on-the-ground work would occur during the construction phase. At the beginning of bridge construction, pile load testing would be performed on the bridge piles. This test would be minimally invasive and would perform stress testing on a pile that would be used for the bridge. Use of a separate test pile is not anticipated.

Temporary construction activities would include pavement rehabilitation, culvert replacement, bridge replacement, traffic controls (including a bicycle detour), equipment access, vegetation clearing, staging, and stock piling. Utility relocations are not currently anticipated. During replacement of the San Antonio River Bridges, temporary median crossovers would be used to divert the northbound and southbound traffic onto the opposite structure of the one being actively replaced. Temporary dewatering and diversion would be required in the San Antonio River to allow for bridge replacement work to be completed.

Unique Features of the Build Alternatives

The two build alternatives for the San Antonio River Bridges differ in several ways. These distinctions are described below. Differences in biological impacts are explained further in Section 2.1.4 Biological Resources.

Alternative 1

Alternative 1 (precast structures) would require an estimated 686 working days (three seasons) for construction. This alternative would facilitate faster construction because the girder would be cast in advance of being transported to the project site, in the manufacturing unit. This alternative would also eliminate the need for falsework during construction. The existing minimum vertical clearance of approximately 15-feet-1-inch over San Antonio Drive would be maintained.

This design is similar to what currently exists, with open soffits under the bridge, so mitigation for night-roosting bats would not be necessary. See Section 2.1.4 Biological Resources for more information on this and other differences in biological effects.

The estimated cost for this alternative is currently \$97,205,000.

Alternative 2

Alternative 2 (cast-in-place) would require an estimated 940 working days (four seasons) for construction, meaning construction activities in the San Antonio River floodplain would occur for a longer duration. This alternative would require the bridge superstructure to be cast at the project site. This

alternative would require falsework during construction. With this alternative, a minimum vertical clearance of approximately 18-feet-10-inches over San Antonio Drive would be needed to satisfy minimum temporary (falsework) vertical clearance requirements.

The box girder that is part of the cast-in-place design would eliminate bat night-roosting habitat and would require night-roosting habitat mitigation. See Section 2.1.4 Biological Resources for more information on this and other differences in biological effects.

The estimated cost for this alternative is currently \$94,331,000. The cost of the bat roosting mitigation has not yet been determined and therefore is not included in this estimated cost.

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, no work would occur on the project. This alternative would not address the purpose and need of the project. With the No-Build Alternative, the condition of the bridges, culverts, and roadway would continue to worsen, and no new traffic information would be provided to the traveling public. Traffic monitoring would also not be improved. Outside of this project, routine maintenance activities by the Caltrans maintenance crew would continue. Common maintenance activities include cleaning out culverts and repairing potholes and cracks in the pavement.

Construction Activities

No construction activities would occur under the No-Build Alternative.

Structures

Under the No-Build Alternative, the project would not replace the San Antonio River Bridges or the southbound North Bradley Undercrossing Bridge. The bridges would continue to deteriorate due to the effects of alkali-silica reactivity and chlorides, and would eventually be at risk of failure.

Roadway Rehabilitation

Under the No-Build Alternative, the project would not rehabilitate the lanes and shoulder, or place accompanying shoulder backing. In addition, slurry seal would not be placed at the northbound and southbound Camp Roberts Safety Roadside Rest Areas to extend the pavement life. The pavement would continue to deteriorate at these locations and would soon reach the end of its service life.

Guardrail and Barriers

Under the No-Build Alternative, the project would not upgrade and extend guardrails, or replace guardrails with median barriers where it is needed. The

current Manual for Assessing Safety Hardware standards for guardrails and median barrier would not be met.

Transportation Management System and Signs

Under the No-Build Alternative, the project would not replace traffic census stations, install a traffic census station, or replace sign panels to meet current reflectivity standards. This alternative would not contribute to the improvement of traffic monitoring or provide additional traffic information to the traveling public.

Drainage Improvements

Under the No-Build Alternative, the project would not replace or repair deteriorating culverts. This alternative would not address the potential risk for roadway and/or embankment failures on U.S. 101 as a result of culvert damage and/or culvert deterioration. Wildlife crossing at post mile R7.78 would not be improved to accommodate larger animals (namely deer).

1.5 Standard Measures and Best Management Practices Included in All Build Alternatives

This project would include a list of Caltrans standard measures that are typically used on all Caltrans projects. Caltrans standard measures are considered features of the project and are evaluated as part of the project. Caltrans standard measures are not implemented to address any specific effects, impacts or circumstances associated with the project, but are instead implemented as part of the project's design to address common issues encountered on projects. The measures listed below are those related to environmental resources and are applicable to the project. These measures can be found in Caltrans 2024 Standard Specifications document.

- 7-1 Legal Relations and Responsibility to the Public
- 10-4 Water Usage
- 10-5 Dust Control
- 10-6 Watering
- 12-1 Temporary Traffic Control
- 12-3 Temporary Traffic Control Devices
- 12-4 Maintaining Traffic
- 13-1 Water Pollution Control
- 13-3 Stormwater Pollution Prevention Program
- 13-4 Job Site Management
- 13-6 Temporary Sediment Control

- 13-7 Temporary Tracking Control
- 13-10 Temporary Linear Sediment Barriers
- 14-1 General (Environmental Stewardship)
- 14-2 Cultural Resources
- 14-6 Biological Resources
- 14-8 Noise and Vibration
- 14-9 Air Quality
- 14-10 Solid Waste Disposal and Recycling
- 14-11 Hazardous Waste and Contamination
- 14-12 Other Agency Regulatory Requirements
- 17-2 Clearing and Grubbing
- 18-1 Dust Palliatives
- 20-1 Landscape
- 20-3 Planting
- 20-4 Plant Establishment Work
- 21-2 Erosion Control Work

Additional standard measures would be added to the project as necessary or appropriate.

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, has been prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service—that is, species protected by the Federal Endangered Species Act).

1.7 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Chapter 1 O Proposed Project

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	To be obtained before construction.
Central Coast Regional Water Quality Control Board	Section 401 Water Quality Certification	To be obtained before construction.
U.S. Army Corps of Engineers	Section 404 Nationwide Permit	To be obtained before construction.
National Marine Fisheries Service	Technical assistance for the South Central Coast steelhead trout	To be completed before the final environmental document.
U.S. Fish and Wildlife Service	Technical assistance for the southwestern pond turtle, western spadefoot toad, least Bell's vireo, southwestern willow flycatcher, and San Joaquin kit fox	To be completed before final environmental document.
National Marine Fisheries Service	Biological Opinion for the South Central Coast steelhead trout	To be obtained prior to construction.
U.S. Fish and Wildlife Service	Biological Opinion for the southwestern pond turtle, western spadefoot toad, least Bell's vireo, southwestern willow flycatcher, and San Joaquin kit fox.	To be obtained prior to construction.
California Department of Fish and Wildlife	Section 4(f) De Minimis concurrence	To be obtained between the draft environmental document and final environmental document. See Appendix A for a description of the proposed determination.
California State Water Resources Control Board	Construction General Permit	To be obtained prior to construction.

Chapter 2 CEQA Evaluation

2.1 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 Impact 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 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.

"No Impact" determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated February 5, 2025, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	Less Than Significant Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less Than Significant Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

Affected Environment

Existing Facility

Within the project limits, U.S. 101 is a four-lane divided highway with two lanes of travel in either direction. The highway is the main north-south transportation corridor serving Central Coast communities. The project limits run from 0.3 mile south of the East Garrison Overcrossing (post mile R1.9) to the Jolon Road Undercrossing near the community of Bradley (post mile R9.7). The route follows the historic El Camino Real, and several replica mission bells are located within the project limits marking the historic route.

Existing Visual Environment

Southern Monterey County and the Salinas Valley area are defined by the broad valley floor, with the Coastal Range mountains to the west and the Gabilan Mountains to the east. Land use is mostly agricultural, and cattle are readily seen grazing in grasslands. The Salinas River runs parallel to the highway on the east side, with dense riparian vegetation, and conjoins with the Nacimiento River and San Antonio River as they cross under U.S. 101. Throughout the area, low rolling hills are covered with scattered oaks.

While Bradley is not visible from the highway due to intervening vegetation, the existing Caltrans safety roadside rest area facilities are noticeable and contribute to the visual experience along U.S. 101 in both the northbound and southbound directions. As seen from the highway, the rest stops are mostly known by the on- and off-ramps associated with them, the low-rise structures, parking areas, electric vehicle charging stations, and landscaping.

Some residential areas can also be seen along the highway, along with some scattered military structures and an expansive railroad bridge over the Salinas River.

Viewer Sensitivity

Viewers traveling along U.S. 101 in this area represent a wide range of users and associated viewing expectations. No local or state designated scenic roadways are identified within the project, but the hills west of the Salinas Valley area are considered a sensitive visual resource as defined by Monterey County planning policy. The moderate to moderately high viewer sensitivity is due in part to the combination of the low-density rural setting allowing for expansive valley views of agriculture backdropped by scenic hillsides in the Salinas Valley.

Guiding Goals and Policies

The project area lies in rural Monterey County. The 2010 Monterey County General Plan provides guidelines for development in the area. The following goal and policy from the Conservation and Open Space Element, Scenic Resources Section apply to the project:

- GOAL OS-1: Retain the character and natural beauty of Monterey County by preserving, conserving, and maintaining unique physical features, natural resources, and agricultural operations.
 - Policy OS-1.9 [in relevant part]: Development that protects and enhances the County's scenic qualities shall be encouraged.

Environmental Consequences

Scenic Vistas

Scenic vistas in the vicinity of U.S. 101 include views of the hills to the west, agricultural and open space, and gentle topography with natural vegetation patterns. Proposed improvements, such as guardrails and bridge rails that are in compliance with the latest safety standards, may be slightly taller than what is existing. Drivers may also observe taller rails on the adjacent bridge. Together, these elements create a more urbanizing effect and slightly degrade experiencing these vistas at spot locations. However, the distant hills and fields would remain visible though the project limits and would continue to contribute to the scenic vista.

Visual Character

The existing visual character of the project area is based primarily on its generally well-vegetated roadsides, rural farming character, and rolling topography.

Proposed project elements such as three upgraded bridges with bridge rails, upgraded guardrails, and additional paving would be readily visible from the roadway. Drainage inlets, culvert headwalls, rock slope protection, and flared end sections of new and repaired culverts may be noticed by the traveling public. These may be seen from county roads near highway on- and off-ramps, and in the median area between the northbound and southbound

lanes. These elements would be partly obscured by vegetation for a portion of the year. Proposed elements may be slightly taller or bulkier. By themselves, these types of elements are not uncommon and would not be seen as unexpected visual elements in a highway setting. The addition of all these elements together would create a more utilitarian appearance and would add a minor degree of urbanization to the setting.

Much of the area in the vicinity of the bridges and culverts is vegetated, either with native shrubs and/or trees. The construction of bridges and drainage improvements, including access roads would cause the removal of vegetation in the immediate area. As a result, these visual changes would cause a minor reduction of rural character and visual quality to the immediate project area until revegetation efforts reach maturity. The proposed retaining walls would not be seen readily from the main alignment due to their location below the roadway and the roadway curvature at this location. However, the northbound wall may be seen briefly due to roadway curvature near the San Antonio River. Also, the Bradley Undercrossing Bridge may be seen from local roadways, such as Bradley Road and Stonesifer Road. The sides of the San Antonio River bridge structures would also be noticeable by drivers from the adjacent structure, but are in areas with limited public access. Treatment, such as texture, on bridges and walls can form shadows to soften urbanizing character and minimize the likelihood of graffiti. Revegetation efforts can also reduce the urbanizing elements.

Measures specifically addressing these visual effects, however, would minimize noticeability of the individual project elements and would reduce the potential effect on the existing visual character.

Light, Glare, and Daytime or Nighttime Views

No new sources of light are proposed as part of the project. Nighttime views would not be affected.

Summary of Visual Effects

Implementation of the project would result in visual changes as seen from public viewpoints such as U.S. 101 and some local streets, such as Bradley Road. An increased visual scale of the highway facility would primarily be the result of the paved elements associated with the new structures, including new retaining walls along with slightly taller guardrails and bridge rails. Additional elements like drainage headwalls also contribute to change in rural character. While the new and replaced infrastructures would not be unexpected in the roadway environment, the increased size and contrasting appearance would make these otherwise visually neutral features potentially more noticeable and would contribute somewhat to the increased visual scale of the highway facility. The reduction in roadside vegetation would also result in a somewhat more engineered appearance of the highway facility.

Though potential visual changes would occur, the same type of elements proposed with this project are seen elsewhere along the highway and are not

by themselves inconsistent with the rural roadway character of the region or throughout the state. The noticeability of the visibly new bridges, railing and guardrail is not unexpected in a roadway environment. Noticeability of concrete drainage elements would be reduced with coloring or staining. As a result, the proposed drainage structures would be subordinate to the overall experience of traveling along the highway. New paving at gores would also be aesthetically treated. Impacted shrubs, trees and riparian habitat would be revegetated.

It is expected that following project construction and revegetation, the project would be generally unnoticed by the casual observer on U.S. 101 and other public roads in the area. If noticed, the project with proposed minimization measures would not appear out of place within the setting. Impacts to visual resources would be less than significant.

Avoidance and Minimization Measures

With implementation of the following avoidance and minimization measures, the project would be consistent with the goals and policies of the Monterey County General Plan, Conservation and Open Space Element, Scenic Resources Section, and potential visual effects would be reduced:

- VIS-1. Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible should be employed.
- VIS-2. Revegetate all disturbed soil areas with native plant species and other erosion control treatments appropriate to each specific work location as directed by Caltrans District 5 Landscape Architecture.
- VIS-3. Replacement planting shall include aesthetic considerations as well as
 the inherent biological goals. Revegetation shall include native trees and
 plants as determined by the Caltrans Biologist and Caltrans District 5
 Landscape Architecture and shall be maintained through plant establishment.
- VIS-4. All visible concrete drainage elements (including but not limited to headwalls, drain inlet aprons, etc.) should be colored to blend with the surroundings and reduce reflectivity. The specific colors of these concrete elements shall be determined by Caltrans District 5 Landscape Architecture.
- VIS-5. If vegetation control under guardrails is required, shale or colored concrete will be selected to blend in with the natural surrounding and reduce reflectivity. The selection of the vegetation control material and/or color shall be determined and approved by District 5 Landscape Architecture in coordination with District 5 field maintenance.
- VIS-6. Structural elements such as bridges and the retaining walls will include aesthetic treatment, such as texture, to reduce glare and graffiti.

Aesthetic treatments are to be determined by District 5 Landscape Architecture.

- VIS-7. Bridge railing selection shall be in "open-style" type 85, 86H or similar. Bridge railing and bridge aesthetics will be developed as a collaboration between Caltrans District 5 Landscape Architecture and Structures Design.
- VIS-8. Following construction, re-grade and re-contour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

2.1.2 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.

The project would not require permanent acquisition of farmland and is not located in or near forest resources. Temporary construction easements and existing Caltrans construction easements are not within land designated for agricultural use; therefore, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
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?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
c) Conflict with existing zoning, 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
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	No Impact

2.1.3 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.

Considering the information in the Air Technical Memo dated July 3, 2024, the following significance determinations have been made for air quality:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less Than Significant Impact
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
c) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact

Affected Environment

The project lies in the North Central Coast Air Basin. The Monterey Bay Air Resources District regulates air quality in the North Central Coast Air Basin. The North Central Coast Air Basin is considered in attainment for all federal ambient air quality standards, non-attainment transitional for state ambient air quality standards for ozone, and non-attainment for airborne particulate less than 10 microns in diameter (PM10).

Because the project area is in attainment for all federal ambient air quality standards, conformity requirements do not apply to this project. Projects that do not further degrade air quality in the basin are consistent with the Monterey Bay Air Resources District's state air quality attainment goals as stated in its State Implementation Plan (the 2012- 2015 Air Quality Management Plan).

Environmental Consequences

Permanent (Long-term) Impacts

Because no additional lanes or capacity is being added to the highway, there would be no difference in long-term air emissions with or without the proposed project. No impact would occur.

Temporary (Construction) Impacts

With almost every construction project, there will be a short-term temporary increase in air emissions and fugitive dust during the construction period. Use of equipment during project construction can generate fugitive dust that may have substantial temporary impacts on local air quality if large amounts of excavation, soil transport, and subsequent fill operations are necessary. It is anticipated that there will be earthwork associated with bridge reconstruction, drainage improvements, and cold planing, so temporary dust generation would be expected.

While the Monterey Bay Air Resources District does have established daily construction emission thresholds for many types of projects, small highway projects like this one do not fit into the district's typical jurisdiction, which typically includes residential, commercial, and industrial projects. However, since the state does not have established air pollution thresholds, the Monterey Bay Air Resources District thresholds are used for comparison purposes in this section. Due to use of standard construction dust and emission minimization practices and procedures, it is anticipated that project emissions of particulate matter (dust) and equipment emissions would be well within the Monterey Bay Air Resources District daily thresholds. Under CEQA, the Monterey Bay Air Resources District has established the threshold of significance for inhalable particulates (PM10) for non-highway projects as 82 pounds per day for construction.

Results of construction emissions quantified using the CAL-CET modeling tool are shown in Table 2.1 and Table 2.2. Emissions were estimated for the

following pollutants: total organic gases (TOG), reactive organic gases (ROG), carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM10 and PM2.5), and black carbon (BC). From these tables, it can be determined that approximate daily average PM10 emissions are quantified around 9.7 and 6.9 pounds per day, depending on the alternative selected for bridge construction; these are levels well below the Monterey Bay Air Resources District threshold of 82 pounds per day.

Table 2.1. Project-Related Pollutant Emission Estimates (Alternative 1)

Averages	Total Organic Gases	Reactive Organic Gases	Carbon Monoxide	Nitrogen Oxides	PM10	PM2.5	Black Carbon
Daily Average (pounds per day)	3.858	3.647	15.536	20.987	9.713	2.222	0.177
Max Daily Average (pounds per day)	7.155	6.728	49.429	46.062	135.960	14.600	0.285
Annual Average (tons per year)	0.439	0.415	1.767	2.387	1.105	0.253	0.020

Source: Estimated using Caltrans Construction Emissions Tool, 2021

Table 2.2. Project-Related Pollutant Emission Estimates (Alternative 2)

Averages	Total Organic Gases	Reactive Organic Gases	Carbon Monoxide	Nitrogen Oxides	PM10	PM2.5	Black Carbon
Daily Average (pounds per day)	2.701	2.554	10.858	14.680	6.929	1.570	0.124
Max Daily Average (pounds per day)	5.019	4.719	34.672	32.326	95.173	10.222	0.200
Annual Average (tons per year)	0.286	0.271	1.151	1.556	0.734	0.166	0.013

Source: Estimated using Caltrans Construction Emissions Tool, 2021

To minimize dust emissions from the project, Standard Specifications Section 14-9.02, Air Pollution Control, would be implemented. Section 14-9.02 states that the contractor is responsible for complying with all local air pollution control rules, regulations, ordinances, and statutes that apply to work performed under

the contract. Also, the project-level Stormwater Pollution Prevention Plan would include water pollution control measures that also serve as standard dust emission minimization measures (such as covering soil stockpiles, watering haul roads, watering excavation and grading areas, and so on). By incorporating appropriate engineering design and storm water Best Management Practices during construction, minimal short-term air quality impacts are expected. Impacts to air quality would be less than significant.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated February 6, 2025, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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
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
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?	Less Than Significant Impact With Mitigation Incorporated
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 With Mitigation Incorporated
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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

Affected Environment

Biological Study Area

The Biological Study Area is the area encompassing the project limits that was studied for biological resources and includes the area that may be directly, indirectly, temporarily, and/or permanently impacted by construction and construction-related activities. The Biological Study Area also includes some adjoining habitats to ensure an adequate area has been studied to fully evaluate the project's biological impacts. The Biological Study Area includes an approximately 7.8-mile stretch of U.S. 101 in Monterey County, near Bradley. The Biological Study Area totals approximately 194 acres.

Physical and Biological Site Conditions

The Biological Study Area lies in the Salinas River Valley, near Bradley, in Monterey County. Surrounding land use is dominated by rangeland, recreational wildlife viewing and hunting (California Department of Fish and Wildlife Big Sandy Wildlife Area), and California Army National Guard property (Camp Roberts military installation). The Salinas River runs parallel to the Biological Study Area on the northeast side for the entire length of the project. The project elevation ranges from approximately 500 to 700 feet above sea level. The approximately 194-acre Biological Study Area contains both natural plant communities and anthropogenic areas, as described below. This region features a Mediterranean climate with hot, dry summers and mild to cool, wet winters. Most rainfall occurs during the winter months (the wettest month is February), with an average rainfall at the nearby Paso Robles Municipal Airport Station averaging approximately 14.6 inches of precipitation per year from 1952 to 2023.

The Biological Study Area crosses the Nacimiento River at approximately post mile R2.45 and crosses the San Antonio River at approximately post mile R6.7. Both streams drain to the Salinas River less than 0.5 mile from the Biological Study Area. Nacimiento River was not delineated for this project because no work (including staging) is proposed at this location and work activities would avoid the stream and riparian zone of the Nacimiento River.

At post mile R6.70, the San Antonio River crosses the Biological Study Area under existing U.S. 101 bridges. The part of the San Antonio River within the Biological Study Area is a perennial stream. Flows and releases are

controlled upstream by a dam at the San Antonio Reservoir and are eventually released into the Salinas River.

At post mile R7.78, an existing culvert under U.S. 101 outlets near the edge of the Salinas River corridor. The main channel of the Salinas River is approximately 1,000 feet east of the culvert, but the extensive riparian forest associated with the Salinas River extends into the Biological Study Area. The culvert location is accessible via an unpaved access road where cottonwood trees that are associated with the riparian zone of the Salinas River overlap the access road.

At post mile R9.66, Hames Creek also crosses through the Biological Study Area near the north end of the project area, but it is not included in the Biological Study Area because no work would occur beyond the existing paved roadway at this location.

Natural Communities

Nine land cover types and vegetation communities occur in the Biological Study Area: developed/anthropogenic, ruderal, non-native annual grassland, blue oak woodland, coastal scrub, mixed willow woodland and thicket, recovering riparian scrub, wetland, and stream. The Biological Study Area is mostly confined to areas immediately adjacent to highway facilities and ruderal/disturbed habitats (which include the road surface and shoulders), but also includes areas surrounding the bridges to be replaced and proposed drainage work locations.

Much of the Biological Study Area is developed, including paved highway, gravel shoulders, gore areas, and dirt roads totaling approximately 117.5 acres. The developed areas are not included in the descriptions of the natural communities below.

A description of the natural communities/habitats present in the Biological Study Area follows.

Willow Woodland and Thicket

Willow woodland and thicket occur in the San Antonio River floodplain within the Biological Study Area and totals approximately 1.23 acres.

Recovering Woody Riparian

In areas adjacent to and under the San Antonio River bridges, riparian habitat is mostly herbaceous. In some areas, the riparian habitat is recovering from a Caltrans seismic retrofit project (05-1F820), which disturbed portions of the site in 2020. This area includes several restoration planting areas. Recovering woody riparian habitat totals approximately 0.43 acre.

Fremont Cottonwood Forest and Woodland

Fremont cottonwood riparian forest is present in the Biological Study Area, along the Salinas River floodplain, adjacent to the culvert at post mile R7.78. Cottonwood riparian forest habitat totals approximately 1.71 acres within the Biological Study Area.

Blue Oak Woodland and Forest

Blue oak woodland occurs mostly at post mile R7.78 near the Bradley Road interchange and totals approximately 0.83 acre.

Coyote Brush Scrub

Coastal scrub habitat within the Biological Study totals approximately 4.03 acres.

Wild Oats and Annual Brome Grassland

Non-native annual grassland occurs throughout the Biological Study Area and occupies 31.35 acres of the Biological Study Area. The non-native annual grassland observed in the Biological Study Area includes maintained/mowed areas along both sides and in the medians of U.S. 101, as well as other upland and floodplain areas.

Adjacent to and under the San Antonio River bridges, riparian habitat is mostly herbaceous and recovering both from a fire in 2016 and from a Caltrans seismic retrofit project (05-1F820), which disturbed portions of the site in 2020. The 2016 fire affected the riparian habitat south of the bridges (upstream).

Ruderal/Disturbed

Ruderal/disturbed vegetation flanks the edges of U.S. 101 and vegetated medians throughout the entire Biological Study Area, totaling approximately 36.12 acres.

Stream

Mapped streams are generally unvegetated waterways distinguished by the presence of an ordinary high water mark. Three named streams are present within the Biological Study Area: Nacimiento River, Hames Creek, and San Antonio River. No work is proposed in Hames Creek or the Nacimiento River. Perennial stream totals approximately 0.54 acre, and ephemeral stream totals 0.20 acre of the Biological Study Area.

Emergent Wetland

Emergent wetlands, which are transitional areas between inundated and dry soils, are present within the Biological Study Area near the San Antonio River. Hydrophytic plants, hydric soils, and wetland hydrology were observed in the emergent wetlands, on the lower terraces on either side of the San Antonio

River channel. Emergent wetland totals approximately 0.06 acre within the Biological Study Area.

Migration and Travel Corridors

The San Antonio River is a significant migration and travel corridor that runs through the Biological Study Area.

The San Antonio River Bridges span South-Central California Coast steelhead critical habitat, and existing bridge piers are present in the active channel. A fish passage habitat assessment was conducted in July 2023, and the form was submitted to FishPAD. The new bridge piers would be fewer in number and placed outside of the active channel. During a site visit on August 28, 2024, California Department of Fish and Wildlife staff concurred with Caltrans' assessment that the existing bridges are not imposing a fish passage barrier and that the placement of new bridge piers outside of the active channel is ideal.

The post mile R7.78 culvert under U.S. 101 provides wildlife passage for small to medium-sized animals. Wildlife camera traps set up at the culvert inlet (36-inch reinforced concrete pipe) and outlet (4-foot concrete box) showed a variety of species passing through, including most frequently striped skunk, bobcat and opossum. Wildlife cameras captured mule deer investigating the culvert inlet, but not entering. An American badger was photo-captured at the inlet and did not appear to enter the culvert. The culvert would be replaced with a 48-inch-diameter reinforced concrete pipe that would have a larger inlet and a straight alignment, potentially providing wildlife a line-of-sight that the existing structure does not allow.

Post miles R1.9 to R5.7 and R9.5 to 13.8 are mapped as Connectivity Rank 5-Irreplaceable and Essential in the Terrestrial Connectivity Areas of Conservation Emphasis. Within these post mile ranges, project activities include pavement overlay, shoulder backing, guardrail improvements, and slurry seal of both rest stops. The remainder of the Biological Study Area is mapped as Connectivity Rank 3-Connections with Implementation Flexibility.

Federally Designated Critical Habitat

South-Central California Coast Steelhead Critical Habitat

San Antonio River is designated as critical habitat for the South-Central California Coast steelhead distinct population segment. There are no other federally designated critical habitat units in the Biological Study Area.

The U.S. Fish and Wildlife Service considers the Physical and Biological Features essential to the conservation of the species, called Primary Constituent Elements. The Primary Constituent Elements may require special management considerations or protection for the conservation of the species. The Primary Constituent Elements that were assessed to occur within the

Biological Study Area at the proposed bridge replacement location are: 1) South-Central California Coast steelhead Primary Constituent Element 2: freshwater rearing sites in the Biological Study Area, and 2) South-Central California Coast steelhead Primary Constituent Element 3: freshwater migration corridors free of obstruction.

The recovering riparian scrub (compared to what was present prior to 05-1F820) may have reduced constituent elements necessary for steelhead spawning and breeding, such as overhanging large wood and aquatic vegetation. The substrate within the river channel consists of sand and gravel with few cobbles and boulders. There are small, shallow pools present with sand/gravel bottoms within the Biological Study Area, but deeper pools are present upstream and downstream of the Biological Study Area.

Invasive Species

A total of 27 invasive plant species as identified by the online California Invasive Plant Council Database were observed within the Biological Study Area. Five exotic plant species with an invasiveness rating of "High" were observed in the Biological Study Area. A total of 13 plant species were observed within the Biological Study Area with a Cal-IPC invasiveness rating of "Moderate," and nine species were observed with an invasiveness rating of "Limited." The distribution of invasive plant species is scattered throughout the Biological Study Area and most common in ruderal/disturbed areas along the edges of U.S. 101.

Regional Species and Habitats/Natural Communities of Concern "Regional species" and "habitats of concern" are terms synonymous with "special-status" or "sensitive" species and habitats.

Special-status species include taxa that are:

- 1. Federally or state listed as endangered, threatened, or rare
- 2. Candidates for federal or state listing as endangered, threatened or rare
- 3. Proposed for federal or state listing as endangered, threatened, or rare
- 4. Considered special concern species by the federal government (i.e., U.S. Fish and Wildlife Service Federal Species of Concern) and state government (i.e., California Department of Fish and Wildlife Species of Special Concern), or those that appear on the California Natural Diversity Database Special Animals List

Sensitive species also include taxa afforded protection or considered sensitive under various laws (e.g., NEPA, CEQA, Migratory Bird Treaty Act) or under sections of the Fish and Game Code, and those taxa recognized as

locally important or sensitive by the California Native Plant Society or the scientific community. Sensitive natural communities/habitats include those that are regulated or considered sensitive by federal, state, and/or local agencies or NEPA/CEQA. The known occurrences of sensitive species have been inventoried and mapped, to varying degrees of accuracy, by the California Natural Diversity Database.

Regional Plant Species of Concern

The California Natural Diversity Database documents 30 special-status plant taxa as occurring within the search area. These plant species are federally listed, state listed, and/or California Native Plant Society California Rare Plant Rank 1B, 2, or 4. The official federal species list for the vicinity of the project area received from U.S. Fish and Wildlife Service included one additional federally listed species.

Listed plant species that have habitat present or are present within the Biological Study Area are listed in Table 2.3 below.

Table 2.3. Regional Plant Species of Concern

Common Name	Federal/ State/CA Native Plant Society and Other Status Codes	General Habitat Description	Habitat Present/ Absent?	Presence, Recommendations, and/or Determination
Indian valley spineflower	/ / CA Rare Plant Rank 1B.2	Annual herb, cismontane woodland, sandy substrates; flowers May – September, 985-1,970 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. However, the species was not detected during appropriately timed surveys and is not expected to occur. No further studies are needed. Avoidance and minimization measures are not needed.
La Panza mariposa-lily	/ / CA Rare Plant Rank 1B.3	Perennial bulbiferous herb; occurs in valley and foothill grassland, cismontane woodland, chaparral, lower montane coniferous forest; found on decomposed granite; 1,065-3,775 feet elevation; flowers April - June	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.

Common Name	Federal/ State/CA Native Plant Society and Other Status Codes	General Habitat Description	Habitat Present/ Absent?	Presence, Recommendations, and/or Determination
Dwarf calycadenia	/ / CA Rare Plant Rank 1B.1	Annual herb; chaparral, cismontane woodland, valley and foothill grassland; meadows and seeps; open, dry meadows, hillsides, gravelly outwashes, rocky, fine soils; flowers May – October; 790- 4,430 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Hardham's evening- primrose	/ / CA Rare Plant Rank 1B.2	Annual herb; chaparral, cismontane woodland; sandy, decomposed carbonate; disturbed or burned areas; flowers March – May; 460-3,100 feet elevation	Habitat Present/ Present	Approximately 12 plants were observed within the area of potential impact during spring botanical surveys. The species is also known to be present on Camp Roberts property, and a California Natural Diversity Database occurrence overlaps with the Biological Study Area. However, the species was not detected in the portion of the Biological Study Area within Camp Roberts during spring surveys. Avoidance and minimization measures will be implemented for the species.
San Luis Obispo owl's-clover	/ / CA Rare Plant Rank 1B.2	Annual herb; occurs in valley and foothill grassland, meadows, and seeps; sometimes found on serpentine; 35-1,410 feet elevation; flowers March – May	Habitat Present	Marginally suitable habitat is present within the Biological Study Area. The species was not detected during appropriately timed surveys and is not expected to occur. No further studies are needed. Avoidance and minimization measures are not needed.
Lemmon's jewelflower	/ / CA Rare Plant Rank 1B.2	Annual herb; pinyon and juniper woodland, valley and foothill grassland; flowers February – May; 246-5,200 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.

Common Name	Federal/ State/CA Native Plant Society and Other Status Codes	General Habitat Description	Habitat Present/ Absent?	Presence, Recommendations, and/or Determination
Jolon clarkia	/ / CA Rare Plant Rank 1B.2	Annual herb; cismontane woodland, chaparral, coastal scrub, riparian woodland; flowers April – June; 66-2,165 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within woodland habitat during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Umbrella larkspur	/ / CA Rare Plant Rank 1B.3	Perennial herb; cismontane woodland, chaparral; mesic sites; flowers April – June; 1,312- 5,249 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within woodland habitat during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Koch's cord moss	/ / CA Rare Plant Rank 1B.3	Moss; occurs in cismontane woodland soil; non-vascular; 590-3,281 feet elevation; does not flower	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within woodland habitat during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Yellow- flowered eriastrum	/ / CA Rare Plant Rank 1B.2	Annual herb; broadleafed upland forest, cismontane woodland, chaparral; on bare sandy decomposed granite slopes or gravelly areas; flowers May – June; 951-3,281 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within woodland habitat during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.

Common Name	Federal/ State/CA Native Plant Society and Other Status Codes	General Habitat Description	Habitat Present/ Absent?	Presence, Recommendations, and/or Determination
Elegant buckwheat	/ / CA Rare Plant Rank 4.3	Annual herb; cismontane woodland and valley and foothill grasslands; microhabitats are usually gravelly or sandy, often washes, and sometimes roadsides; flowers March – November; 655-5,005 feet elevation	Habitat Present/ Present	Suitable habitat is present within the Biological Study Area, and the species was detected during spring 2023 botanical surveys. A total of approximately 40 plants were observed in two locations. One location overlaps with the 0.116-acre location that encompasses the Hardham's evening-primrose plants. The other location (approximately 0.027 acre) is on Camp Roberts property in the potential staging/laydown area east of the San Antonio River bridges. Both locations were distinguished from the surrounding tall non-native annual grasslands around them by a dry sandy substrate and presence of herbaceous plants. Elegant buckwheat was blooming in August 2023 when the late season survey on Camp Roberts property was conducted. Avoidance and minimization measures will be implemented for the species.
Temblor buckwheat	/ / CA Rare Plant Rank 1B.2	Annual herb; valley and foothill grassland; barren clay or sandstone substrates; flowers April – September; 984-3,280 feet elevation	Habitat Present	Marginally suitable habitat is present within the Biological Study Area. The species was not detected during appropriately timed surveys and is not expected to occur. No further studies are needed. Avoidance and minimization measures are not needed.
Santa Lucia purple amole	FE / / CA Rare Plant Rank 1B.1	Perennial bulbiferous herb; chaparral, cismontane woodland, valley and foothill grassland; often in grassy areas with blue oaks in foothill woodland; gravelly clay soils; flowers April – June; 787-1,280 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. The Federal Endangered Species Act effects determination is the project would have <i>no effect</i> on Santa Lucia purple amole. Avoidance and minimization measures are not needed.

Common Name	Federal/ State/CA Native Plant Society and Other Status Codes	General Habitat Description	Habitat Present/ Absent?	Presence, Recommendations, and/or Determination
Pale-yellow layia	/ / CA Rare Plant Rank 1B.1	Annual herb; cismontane woodland, coastal scrub, pinyon-juniper woodland, valley and foothill grassland; alkaline or clay soils; open areas; flowers March – June; 984- 5,594 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Abbot's bush-mallow	/ / CA Rare Plant Rank 1B.1	Perennial deciduous shrub; riparian scrub; among willows, near rivers, and along roadsides; flowers May – October; 443- 1,607 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected during appropriately timed surveys and is not expected to occur. No further studies are needed. Avoidance and minimization measures are not needed.
Indian Valley bush- mallow	/ / CA Rare Plant Rank 1B.2	Perennial deciduous shrub; cismontane woodland, chaparral; granitic outcrops and sandy bare soil, often in disturbed soils or burned areas; flowers April – October; 492- 5,577 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected during appropriately timed surveys and is not expected to occur. No further studies are needed. Avoidance and minimization measures are not needed.
Davidson's bush-mallow	/ / CA Rare Plant Rank 1B.2	Perennial deciduous shrub; coastal scrub, riparian woodland, chaparral, cismontane woodland; sandy washes; flowers June – January; 607-2,805 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected during appropriately timed surveys and is not expected to occur. No further studies are needed. Avoidance and minimization measures are not needed.
Carmel Valley bush- mallow	/ / CA Rare Plant Rank 1B.2	Perennial deciduous shrub; cismontane woodland, chaparral, coastal scrub; talus hilltops and slopes, sometimes on serpentine; fire dependent; flowers April – October; 98-3,609 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected during appropriately timed surveys and is not expected to occur. No further studies are needed. Avoidance and minimization measures are not needed.

Common Name	Federal/ State/CA Native Plant Society and Other Status Codes	General Habitat Description	Habitat Present/ Absent?	Presence, Recommendations, and/or Determination
Shining navarretia	/ / CA Rare Plant Rank 1B.2	Annual herb; cismontane woodland, valley and foothill grassland, and sometimes vernal pools; flowers March – July; 197- 3,281 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Robbins' nemacladus	/ / CA Rare Plant Rank 1B.2	Annual herb; chaparral, valley, and foothill grassland; dry, sandy, or gravelly slopes; flowers April – June; 1,148-5,577 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Hooked popcorn- flower	/ / CA Rare Plant Rank 1B.2	Annual herb; chaparral, cismontane woodland, valley, and foothill grassland; sandstone outcrops and canyon sides; often in burned or disturbed areas; flowers April – May; 984-2,493 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.
Santa Cruz microseris	/ / CA Rare Plant Rank 1B.2	Annual herb; broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; open areas in loose or disturbed soil; usually derived from sandstone, shale or serpentine, on seaward slopes; flowers April – May; 33-1,640 feet elevation	Habitat Present	Suitable habitat is present within the Biological Study Area. The species was not detected within the Biological Study Area during appropriately timed surveys. No further studies are needed. Avoidance and minimization measures are not needed.

Regional Animal Species of Concern

The California Natural Diversity Database documents 24 special-status animal taxa as occurring within the search area. Classifications for protected species include federally listed, state-listed, California Fully Protected, Species of Special Concern, Natural Diversity Database Special Animals, and/or protected by the Migratory Bird Treaty Act and Fish and Game Code.

In addition, one additional California Species of Special Concern animal, four additional federally listed species from the U.S. Fish and Wildlife Service, and one additional federally listed species from National Marine Fisheries Service were included.

Table 2.4 lists the names and legal status of each of the special-status animals with habitat present or known presence in the Biological Study Area; also included is a general description of the habitat requirements for each. The far right column of the table (Presence, Recommendations, and/or Determination) summarizes the potential for each taxon to occur in the Biological Study Area or be affected by the project.

Table 2.4. Regional Animal Species of Concern

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Amphibians— California Red- legged Frog	Federally Threatened / /	Riparian and upland dispersal habitats with aquatic breeding areas within. Breeding occurs in pools, backwaters within streams, creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons. Elevation sea level – 1,500 meters.	Habitat Present	Though marginally suitable dispersal and upland habitat is present within the Biological Study Area, the species is not historically recorded in the area and is not expected to occur. The species was not observed during wildlife surveys, though protocol surveys were not conducted. The project site is not within a California red-legged frog designated critical habitat unit. The Federal Endangered Species Act determination is that the project will have no effect on California red-legged frog. Avoidance and minimization measures are not needed.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Amphibians— Western spadefoot toad	Federal Proposed Threatened/ / California Species of Special Concern	Prefers open areas with sandy or gravelly soils in a variety of habitats, Central Valley, Central Coast and Southern California into Baja California. Spends most of the year in underground burrows. Breeding sites include vernal pools and other temporary rain pools, cattle tanks, and occasionally in pools of intermittent streams that do not have predators like bullfrogs or crayfish. Breeds in temporary shallow rain pools, January to May.	Habitat Present	No western spadefoot toads were observed during surveys within the Biological Study Area. Though vernal pools are not present, upper terraces and secondary washes of the San Antonio River provides potentially suitable spadefoot habitat. Marginally suitable western spadefoot habitat was also observed in tire ruts along a dirt access road adjacent to post mile R7.78 culvert outlet that had ponded water in winter and early spring. Suitable road rut habitat may be present on portions of the Camp Roberts property that were not surveyed during winter or early spring 2023. Follow-up botanical surveys are planned for this area during the project final design phase and will also identify any suitable spadefoot habitat. Avoidance and minimization measures are recommended. The Federal Endangered Species Act determination is that the project may affect, and is likely to adversely affect western spadefoot toad. Avoidance and minimization measures will be implemented for the species.
Amphibians— Coast horned lizard	/ / California Species of Special Concern	Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains, typically in sandy washes with scattered shrubs. This species is found along the Pacific Coast from Baja California north to the San Francisco Bay area, and inland as far north as the Shasta Reservoir and as far south as Baja California.	Habitat Present	Suitable habitat is present in dry sandy washes and coastal scrub habitat within the Biological Study Area. Avoidance and minimization measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Amphibians— Northern California legless lizard	/ / California Species of Special Concern	Occurs from the southern edge of the San Joaquin River in northern Contra Costa County south to the Ventura County, in sandy soil and sparsely vegetated areas of beach dunes, scrub, woodlands, and sandy washes. Prefers soils with a high moisture content.	Habitat Present	Suitable habitat is present in oak woodland habitat within the Biological Study Area. Avoidance and minimization measures will be implemented for the species.
Amphibians— Southwestern pond turtle	Federal Proposed Threatened/ /California Species of Special Concern	Occurs in quiet waters of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet. Needs basking sites and suitable upland habitat like sandy banks or grassy open fields up to 0.3 mile from water for egg- laying.	Habitat Present /Present	An adult southwestern pond turtle was observed basking on a log within the San Antonio River near the bridge structures in 2023. The Biological Study Area provides suitable aquatic habitat for this species at San Antonio River, and the adjacent open grassland habitat on floodplain terraces may provide suitable upland nesting habitat as well as dispersal habitat. The nearest California Natural Diversity Database occurrence is upstream of the U.S. 101 Nacimiento River Bridges on Camp Roberts Military Base from 1994. Adult and juvenile individuals were observed along the Nacimiento River during amphibian surveys conducted at Camp Roberts in 2018. The Federal Endangered Species Act
				determination is that the project may affect, and is likely to adversely affect southwestern pond turtle. Avoidance and minimization measures will be implemented for the species.
Amphibians— San Joaquin coachwhip snake	/ / California Species of Special Concern	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.	Habitat Present	Suitable habitat is present in dry sandy washes and grassland habitat within the Biological Study Area. Avoidance and minimization measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Birds— Tricolored blackbird	Protected by Migratory Bird Treaty Act / State Threatened / California Species of Special Concern	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Breeds in large freshwater marshes. Requires open water, protected nesting substrate of cattails or bulrushes, and foraging area with insect prey near the colony.	Habitat Present	Marginally suitable habitat is present in emergent wetland vegetation within the San Antonio River floodplain. The species was not detected during surveys and is not expected to occur within the Area of Potential Impact. The California Endangered Species Act determination is that no take of tricolored blackbird would occur. Avoidance and minimization measures will be implemented for the species.
Birds—Great blue heron	Protected by Migratory Bird Treaty Act / /	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Habitat Present	Suitable habitat is present for nesting great blue heron. Known rookeries are present in the region, but none were observed within the Biological Study Area. Avoidance and minimization measures will be implemented for the species.
Birds— Burrowing owl	Protected by Migratory Bird Treaty Act / / California Species of Special Concern	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on mammal burrows for nests, especially California ground squirrel. Preferred nesting sites have loose soil, some elevation to avoid floods, outlooks, and a high density of burrows.	Habitat Present	Marginally suitable habitat is present within the Biological Study Area. Most of the annual grasslands within the Biological Study Area are tall and do not provide ideal burrowing owl habitat. The species was not detected during surveys and is not expected to occur within the Area of Potential Impact. Avoidance and minimization measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Birds—Yellow-billed cuckoo	Federally Threatened / /	Wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation along streams and marshes. Nests often placed in willows along streams and rivers with nearby cottonwoods serving as foraging sites.	Habitat Present	Suitable nesting habitat is present in the Biological Study Area. The species was not detected during surveys and is not expected to occur within the Area of Potential Impact. No California Natural Diversity Database records of yellow-billed cuckoo exist within the six-quad search for this project. The Federal Endangered Species Act determination is that the project will have no effect on yellow-billed cuckoo. Avoidance measures for nesting birds are recommended.
Birds— Southwestern willow flycatcher	Federally Endangered, Protected by Migratory Bird Treaty Act / State Endangered / Critical Habitat	Breeds in marshes and riparian areas, while wintering in shrubby clearings and early successional growth. Nests are near water and low, especially in crotch of trees or bushes. Habitat patches of 0.25 acre and 30 feet minimum width.	Habitat Present	Suitable nesting and foraging habitat is present in the Biological Study Area. The species was not detected in the Biological Study Area during surveys for this project. The Federal Endangered Species Act determination is that the project may affect but is not likely to adversely affect southwestern willow flycatcher. The California Endangered Species Act determination is no take of the species will occur. Avoidance and minimization measures will be implemented for the species. Critical Habitat for the species is not present within the Biological Study Area. The project would have no effect to southwestern willow flycatcher Critical Habitat. Avoidance and minimization measures for its critical habitat are not needed.
Birds— Bald eagle	Bald and Golden Eagle Protection Act, Protected by Migratory Bird Treaty Act, Federal Delisted/ State Endangered /Fully Protected	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially Ponderosa pine. Roosts communally in winter.	Habitat Present/ Present	Though habitat for nesting eagles is not present in the Biological Study Area, the nearest known bald eagle nest is within about 700 feet of the Biological Study Area along the Salinas River. This indicates that project activities would occur far enough away from the known nest to avoid disturbance. Bald eagles were seen soaring over the Biological Study Area on several site visits. The project would not result in take of bald eagle. Avoidance and minimization measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Birds— Yellow warbler	Protected by Migratory Bird Treaty Act / / California Species of Special Concern	Riparian deciduous habitats and plant associations. Nests in montane shrubbery in open conifer forests in Cascades, especially in cottonwoods, willows, alders. Nest is an open cup placed 2-16 feet above ground in a deciduous sapling or shrub.	Habitat Present	Suitable nesting and foraging habitat is present for yellow warbler within the Biological Study Area. Avoidance and minimization measures will be implemented for the species.
Birds— Least Bell's vireo	Federally Endangered, Protected by Migratory Bird Treaty Act / State Endangered/	Dense, low, shrubby vegetation, generally early successional stages in riparian areas, brushy fields, young second-growth forest or woodland, scrub oak, coastal chaparral, and mesquite brushlands, often near water in arid regions. Builds its nests with lichens and mosses. Summer resident of Monterey County and Central and Southern California coasts in low riparian areas in vicinity of water or in dry river bottoms; below 2,000 feet.	Habitat Present	Suitable nesting and foraging habitat is present within the Biological Study Area. The species was not detected in the Biological Study Area during surveys for this project. The Federal Endangered Species Act determination is that the project may affect but is not likely to adversely affect least Bell's vireo. The California Endangered Species Act determination is no take of the species will occur. Avoidance and minimization measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Fish— Monterey hitch	/ / California Species of Special Concern	Known from Sacramento-San Joaquin, Clear Lake, Russian River, and Pajaro-Salinas River drainages. Spawning occurs mainly in riffles of streams tributary to lakes, rivers, and sloughs, after flows increase in response to spring rains. Found in low-gradient sites with permanent water and large pools in summer. Spawning requirements are in need of further documentation.	Habitat Present	Monterey hitch was not observed in the Biological Study Area, but suitable habitat is present within San Antonio River. The species has been detected on Camp Roberts within Salinas River and Nacimiento River. The nearest California Natural Diversity Database occurrence includes the Salinas River from the ocean to approximately San Miguel and a portion of the Nacimiento River. Though not documented, the presence of Monterey hitch in San Antonio River is possible due to its hydrologic connection with the Salinas River and similar habitat suitability. Measures proposed for South-Central California Coast steelhead will also avoid and minimize impacts to Monterey hitch.
Fish— Steelhead – South-Central California Coast DPS	Federally Threatened / / Critical Habitat	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River. Need adequate streamflow for return passage to streams and rivers to spawn. Require cool, clean water.	Habitat Present	Suitable habitat is present within the Biological Study Area in San Antonio River. The California Department of Fish and Wildlife has preliminarily determined that there are no fish passage issues associated with the existing San Antonio River bridges or the proposed bridge replacement. The species was not detected in the Biological Study Area during surveys for this project. The Federal Endangered Species Act determination is that the project may affect, and is likely to adversely affect South-Central California Coast steelhead. Avoidance and minimization measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Invertebrates— Crotch bumblebee	Candidate Endangered	Coastal California east to the Sierra- Cascade crest and south into Mexico. Inhabits open grasslands, shrublands, chaparral, desert margins, and semi- urban settings. Nests in abandoned rodent nests, tufts of grass, old bird nests, rock piles, or cavities in dead trees.	Habitat Present	Suitable habitat is present in the Biological Study Area. Annual grasslands and coastal scrub contain suitable flowering/nectar species for feeding and burrows/woody debris in the Biological Study Area provides potentially suitable nesting habitat. Surveys to detect the bumblebee will be conducted in the design phase. If the species is detected, Caltrans will seek a 2081 permit with California Department of Fish and Wildlife. No take of Crotch bumblebee is anticipated. Avoidance and minimization measures will be implemented for the species.
Mammals— Pallid bat	/ / California Species of Special Concern	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and buildings. Very sensitive to disturbance of roosting sites.	Habitat Present/ Present	Suitable roosting habitat is present within the Biological Study Area. The species was detected day and night roosting in bridge structures over San Antonio River, and evidence of the species was detected in the post mile R7.78 culvert. Avoidance, minimization, and mitigation measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Mammals— Townsend's big-eared bat	/ / California Species of Special Concern	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. May use trees for day and night roosts; however, requires caves, mines, rock faces, bridges or buildings for maternity roosts. Maternity roosts are in relatively warm sites. Extremely sensitive to human disturbance.	Habitat Present/ Present	Suitable roosting habitat is present within the Biological Study Area. The species was detected day roosting within the post mile R7.78 culvert. Avoidance, minimization, and mitigation measures will be implemented for the species.
Mammals— Hoary bat	/ /	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Habitat Present	Suitable tree roosting habitat is present in large red willows and cottonwoods within the Biological Study Area. The species was not detected during project surveys. Avoidance, minimization, and mitigation measures will be implemented for the species.
Mammals— Monterey dusky-footed woodrat	/ / California Species of Special Concern, included on California Natural Diversity Database Special Animals List	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Shaded areas, can build stick homes up to 5 feet high and 8 feet in diameter on the ground or in trees.	Habitat Present/ Present	Suitable habitat is present within oak woodland and coastal scrub habitats of the Biological Study Area. Woodrats were detected at post mile R7.78. Avoidance and minimization measures will be implemented for the species.
Mammals— Salinas pocket mouse	/ / California Species of Special Concern	Annual grassland and desert shrub communities in the Salinas Valley. Finetextured, sandy, friable soils. Burrows for cover and nesting.	Habitat Present	Suitable habitat is present for Salinas pocket mouse within the Biological Study Area. The species was not detected during project surveys. Avoidance and minimization measures will be implemented for the species.

Common Name	Federal/ State/and Other Status Codes	General Habitat Description	Habitat Present/ Absent in Biological Study Area?	Presence, Recommendations, and/or Determination
Mammals— American badger	/ / California Species of Special Concern	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Habitat Present/ Present	Suitable habitat is present within the Biological Study Area for American badger. Sign of foraging American badger was detected during project surveys within grasslands of the Biological Study Area. Avoidance and minimization measures will be implemented for the species.
Mammals— San Joaquin kit fox	Federal Endangered / State Threatened / 	Annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	Habitat Present	Suitable habitat is present within the Biological Study Area for San Joaquin kit fox. The species was not detected during surveys for this project and is not expected to occur. The Federal Endangered Species Act determination is that the project may affect, but is unlikely to adversely affect San Joaquin kit fox. No take of the species would occur. Avoidance and minimization measures will be implemented for the species.

Regional Habitats of Concern

The California Natural Diversity Database documents two regional habitats of concern that are considered sensitive as occurring within the search area, but neither one is present in the Biological Study Area. Also, U.S. Fish and Wildlife Service-designated critical habitat and the California Department of Fish and Wildlife's Classification and Mapping Program (VegCAMP) were referenced for regional habitats of concern. The only habitat of concern present in the Biological Study Area during surveys was critical habitat for steelhead, which is discussed in Table 2.5 below.

Table 2.5. Regional Habitats of Concern

Habitat/ Natural Community	Federal / State / California Department of Fish and Wildlife and Other Status Codes	Natural Community Description	Habitat Present/ Absent in Biological Study Area?	Rationale
Critical Habitat for Steelhead – South-Central California Coast Steelhead Distinct Population Segment	Critical Habitat / /	The San Antonio River, Nacimiento River, and the nearby Salinas River, are designated as critical habitat for the South- Central California Coast steelhead Distinct Population Segment and identified as the Paso Robles hydrologic sub-area of the designation.	Habitat Present	Critical Habitat is present in the Biological Study Area. The project will temporarily impact Critical Habitat during bridge replacement activities at San Antonio River. The Federal Endangered Species Act determination is that the project may affect, and is likely to adversely affect designated Critical Habitat for South-Central California Coast steelhead. The avoidance and minimization measures described for jurisdictional features will also serve to avoid and minimize project-related impacts to steelhead designated critical habitat. Additional measures specific to steelhead and its habitat are included below.

Jurisdictional Features

Jurisdictional U.S. Army Corps of Engineers wetlands include areas: 1) where all three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) are present, and 2) that are either confined within the ordinary high water mark of a drainage feature or exhibit a nexus/connectivity to jurisdictional waters. For the purposes of this project, Regional Water Quality Control Board jurisdiction is treated as equivalent to U.S. Army Corps of Engineers jurisdiction for Clean Water Act Section 401/404 permitting purposes. California Department of Fish and Wildlife jurisdiction encompasses rivers, streams, and lakes extending from the thalweg (lowest bed elevation) to the top of the surrounding banks and/or outer edge of adjacent riparian vegetation, whichever is greater.

Jurisdictional features were delineated within the Biological Study Area between May 8, 2023, and August 23, 2023, by Caltrans biologists.

Table 2.6 quantifies the delineated potential jurisdictional areas by resource agency.

Table 2.6. Jurisdictional Areas

Agency	Jurisdictional Types	Area (acres)	Length (linear feet)
U.S. Army Corps of Engineers	Other Waters – Perennial Streams	0.54	532
U.S. Army Corps of Engineers	Other Waters – Ephemeral Concrete Lined Streams	0.20	163
U.S. Army Corps of Engineers	Emergent Wetland	0.06	204
U.S. Army Corps of Engineers	Total U.S. Army Corps of Engineers Jurisdiction	0.8	899
Regional Water Quality Control Board	Other Waters – Perennial Streams	0.54	532
Regional Water Quality Control Board	Other Waters – Ephemeral Concrete Lined Streams	0.20	163
Regional Water Quality Control Board	Emergent Wetland	0.06	204
Regional Water Quality Control Board	Riparian Woodland Zone	2.23	485
Regional Water Quality Control Board	Recovering Woody Riparian	0.43	75
Regional Water Quality Control Board	Herbaceous Streambank	1.56	355
Regional Water Quality Control Board	Total Regional Water Quality Control Board Jurisdiction	5.02	1,814
California Department of Fish and Wildlife	Streambed/Perennial Stream	0.54	532
California Department of Fish and Wildlife	Streambed/Ephemeral Stream, Concrete Lined	0.20	163
California Department of Fish and Wildlife	Emergent Wetland (in-stream)	0.06	204
California Department of Fish and Wildlife	Riparian Woodland Zone	2.23	485
California Department of Fish and Wildlife	Recovering Woody Riparian	0.43	75
California Department of Fish and Wildlife	Herbaceous Streambank	1.56	355
California Department of Fish and Wildlife	Total California Department of Fish and Wildlife Jurisdiction	5.02	1,814

Below is a description of where jurisdictional features are located within the Biological Study Area, which may be affected by the project and the characteristics of these features.

San Antonio River Corridor: At post mile R6.70, within the Biological Study Area, the San Antonio River is a perennial stream that has flows and releases controlled upstream by a dam at the San Antonio Reservoir. The San Antonio River perennial stream is subject to U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdiction.

The large storms in January and March of 2023 left deposits throughout the floodplain. Where the previous 2020 seismic retrofit project impacted vegetation, several patches of recently restored riparian tree and shrub plantings are present and this area is mapped as "recovering woody riparian." A 2016 wildfire also impacted a portion of the Biological Study Area upstream of the bridges. Downstream of these recovering areas, the riparian vegetation resembles mature mixed willow riparian forest. On the southeast side of the San Antonio River, adjoining the Camp Roberts base property, the riverbank includes a narrow riparian band of sandbar willow as well as concrete slope paving under the bridges.

During delineations on August 23, 2023, it was noted that hydrophytic vegetation had grown substantially along the low terraces on either side of the San Antonio River channel. This area met all three wetland criteria for at least part of the growing season and is mapped as an instream emergent wetland. The in-stream emergent wetland is subject to U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdiction and totals approximately 0.06 acre.

Salinas River Corridor: At post mile R7.78, an existing culvert under U.S. 101 outlets near the edge of the Salinas River corridor. The culvert itself does not convey jurisdictional flows; the culvert inlet is a swale feature with annual upland grasses that shows no evidence of flow. The outlet shows some evidence of flow and some sediment sorting at the culvert; however, this dissipates without reaching another feature and appears to be a function of the steep embankment slope at the culvert outlet. The outlet feature is a storm water feature that dissipates into coyote brush, upland vegetation, and eventually onto an existing unpaved access road. This location did not flow beyond the upland vegetation during the recent heavy rain year. Though the primary channel of the Salinas River is 1,000 feet east of the culvert, the extensive riparian forest associated with the Salinas River extends into the Biological Study Area.

Environmental Consequences

Habitats and Natural Communities of Special Concern

Impacts have been quantified based on estimated ground disturbance, disturbed vegetation, and other disturbance related to the project. These impact areas make up the Area of Potential Impact. To quantify project impacts, impact areas were overlain on jurisdictional areas and habitats in a map. Estimates of impacts to various habitat types are shown in Table 2.7.

Table 2.7. Estimated Impacts to Habitats and Natural Communities of Concern

Natural Community/Habitat	Permanent Impacts (acres)	Permanent Impacts (square feet)	Permanent Benefit (acres)	Permanent Impacts (square feet)	Temporary Impacts (acres)	Temporary Impacts (square feet)
Willow Woodland and Thicket	0	0	0	0	0.804	35,020
Recovering Woody Riparian	0	0	0	0	0.426	18,544
Fremont Cottonwood Riparian Forest	0	0	0	0	0.275	11,964
Herbaceous Streambank	0.0092	400	+0.0131	+572	0.981	42,718
Blue Oak Woodland and Forest	0.0079	342	0	0	0.151	6,581
Coyote Brush Scrub	0	0	0	0	1.661	72,339
Wild Oats and Annual Brome Grassland	0.0066	288	0	0	29.276	1,275,253
Ruderal/Disturbed	0	0	0	0	35.589	1,550,251
Stream/Other Waters	0	0	+0.0074	+324	0.302	13,155
Emergent Wetland	0	0	0	0	0.041	1,779
Steelhead Critical Habitat	0	0	+0.0074	+324	0.302	13,155

Project work would occur mostly along the paved travel way and would not extend beyond 20 feet of the edge of pavement, except in specified bridge and culvert locations.

One valley oak near the southbound lane is proposed for removal due to vehicle collision history. Approximately 10 native trees are anticipated for

removal in jurisdictional areas for work related to bridge replacements. Culvert replacement at post mile R7.78 may require pruning of trees within jurisdictional areas. Two blue oak trees in upland areas at post mile R7.78 may require removal. Caltrans landscaping would replace removed trees that are less than 24 inches in diameter at breast height at a 3-to-1 ratio. Temporary impacts would occur mostly from equipment access, clearing vegetation, staging, and stock piling.

Impacts would result mostly from the use of construction equipment and associated worker foot traffic. Trucks, bulldozers, backhoes, compactors, cranes, pile drivers, asphalt concrete rollers, clamshells, excavators, compressors, pavers, water trucks, sweepers, and any other equipment necessary for construction would be used. Staging may occur in closed lanes behind a temporary concrete protective barrier or along ruderal/disturbed medians or edges of U.S. 101. Staging for bridge replacements may occur in adjacent Camp Roberts property northeast of the bridges.

Jurisdictional Impacts

Estimated impacts to jurisdictional waters are shown in Table 2.8. These impacts were determined by overlaying the project Area of Potential Impact with the preliminary jurisdictional determination and habitat mapping. Impacts to jurisdictional features would occur at the San Antonio River Bridges location (post mile R6.7) and at the post mile R7.78 culvert.

Permanent impacts to other waters/streambed are not anticipated. Permanent impacts to riparian and streambank habitat would come from the construction of new piers in locations that are not currently hardscapes for the San Antonio River Bridges. However, due to the reduced number of support structures for both build alternatives, the project would result in a net reduction of structures within the streambed and riparian/streambank corridor. Reestablishment of streambed, riparian and streambank habitat where existing supports are removed would offset the new permanent structure.

The existing structures are each composed of six pier walls, measuring approximately 27 feet long by 6 feet wide, that support the existing bridges. Each bridge has four pier walls within jurisdictional areas. Each existing pier wall occupies approximately 162 square feet, for a total of 1,296 square feet (0.0298 acre) of existing pier structures in jurisdictional areas. The new bridge would consist of three piers that are composed of two circular columns, each 8 feet in diameter, resulting in 50 square feet of permanent impact per column. Only four piers would be placed in jurisdictional streambank. Therefore, the new bridge would have approximately 400 square feet (0.0092 acre) of permanent pier impacts in jurisdictional areas (herbaceous streambank). Permanent removal of one existing pier below the ordinary high water mark would result in reestablishment of approximately 324 square feet (0.0074 acre) of streambed. Removal of remaining piers would result in reestablishment of approximately 972 square feet (0.0223 acre) of

herbaceous streambank area for a net increase of approximately 572 square feet (0.0131 acre) of streambank.

Temporary impacts to jurisdictional features would occur due to vegetation removal/pruning and temporary access at the San Antonio River location and at the post mile R7.78 culvert. Diversion and dewatering activities would occur at the San Antonio River location. A total of approximately 13,155 square feet (0.302 acre) of U.S. Army Corps of Engineers, Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdictional stream may be temporarily impacted. A total of approximately 108,246 square feet (2.485 acres) Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdictional riparian may be temporarily impacted. A total of approximately 1,779 square feet (0.041 acres) of U.S. Army Corps of Engineers, Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdictional in-stream emergent wetland would be temporarily impacted. Removal of existing hardscape and structural elements would reestablish jurisdictional areas and fully offset permanent impacts.

Table 2.8 quantifies impacts at the San Antonio River Bridges. Temporary impacts to jurisdictional areas would be restored. Replacement plantings also would be detailed in Caltrans' Landscape Architecture Landscape Planting Plan and the final Mitigation Monitoring Plan.

Alternative 1 and Alternative 2 bridge designs have the same footprint and therefore the same permanent and temporary impact areas to jurisdictional aquatic resources. The main difference between the two alternatives is the temporary impact. Alternative 2 would require 254 more working days to complete. Alternative 2 would incur impacts to the San Antonio River stream and riparian resources for a longer duration, including an additional season.

Table 2.8 Estimated Impacts to Jurisdictional Areas

Jurisdictional Areas	Permanent Impacts (acres)	Permanent Benefit (Reestablishment) (acres)	Temporary Impacts (acres)
Intermittent Streambed (U.S. Army Corps of Engineers, California Department of Fish and Wildlife, Regional Water Quality Control Board jurisdiction)	0	+0.0074	0.302
In-stream Emergent Wetland (U.S. Army Corps of Engineers, California Department of Fish and Wildlife, Regional Water Quality Control Board jurisdiction)	0	0	0.041
Willow Woodland and Thicket Riparian (California Department of Fish and Wildlife and Regional Water Quality Control Board jurisdiction)	0	0	0.804
Recovering Woody Riparian streambank areas (California Department of Fish and Wildlife and Regional Water Quality Control Board jurisdiction)	0	0	0.426
Herbaceous streambank (California Department of Fish and Wildlife and Regional Water Quality Control Board jurisdiction)	0.0092	+0.0131	0.981
Cottonwood Riparian Forest (California Department of Fish and Wildlife and Regional Water Quality Control Board jurisdiction)	0	0	0.275
Total Area	0.0092	+0.0205	2.829

Critical Habitat

Adverse modification of critical habitat is defined as a "direct or indirect alteration that appreciably diminished the value of critical habitat for both the species survival and recovery." The project may result in adverse impacts to South-Central California Coast steelhead designated critical habitat, which includes temporary impacts to aquatic habitat and adjacent riparian vegetation. Temporary impacts to steelhead designated critical habitat are associated with riparian vegetation removal, stream dewatering and diversion, bridge demolition, heavy equipment operation, and bridge reconstruction activities. In total, the Biological Study Area includes approximately 18,861 square feet (0.433 acre) of steelhead aquatic habitat over a 360-linear-foot distance. Project activities are anticipated to temporarily impact approximately 0.302 acre (232 linear feet) of steelhead designated critical habitat within the Area of Potential Impact.

No permanent impacts to steelhead critical habitat are anticipated with this project. The existing bridge pier that is currently within the active channel is proposed for removal. Pilings for the new replacement structure would be placed outside of the active channel, thereby providing a net increase in stream habitat.

Approximately 0.302 acre (232 linear feet) of steelhead critical habitat would be temporarily impacted. Of the 1,240 total miles (6,546,239 linear feet) of stream within South-Central California Coast steelhead critical habitat, the total impacts associated with the proposed project equate to approximately 0.00005 percent of this critical habitat unit. However, the bridge replacements would require stream diversion/dewatering, which would temporarily alter quality of aquatic habitat and result in a temporary loss of service for steelhead over a span of up to three years. Alternative 2 would require 254 more working days (one more season) to complete than Alternative 1 would. Alternative 2 would incur impacts to critical habitat for a longer duration. The loss of service would occur in part in an area that serves as a freshwater rearing site (Primary Constituent Element 2). Diversions would be removed prior to the rainy season of each year of construction. Removal of vegetation for bridge replacement and construction equipment access into the stream channel to conduct work would affect shading and microhabitat temperature regulation characteristics. Though temporarily impacted vegetation would be replaced by in-kind replanting, the up to four-year duration of disturbance adds a temporal loss of habitat to consider. However, the project would remove concrete piers from the active channel, resulting in a long-term beneficial modification of steelhead critical habitat. The avoidance and minimization measures described for jurisdictional features would also serve to avoid and minimize project-related impacts to steelhead designated critical habitat. Additional measures specific to steelhead and its habitat are included below. No mitigation measures specific to the species are proposed.

The Federal Endangered Species Act Section 7 effects determination is that the proposed project *may affect, and is likely to adversely affect* designated critical habitat for South-Central California Coast steelhead.

Invasive Species

A total of 27 invasive plant species as identified by the online California Invasive Plant Council Inventory Database were observed within the Biological Study Area.

Ground disturbance and other aspects of project construction could potentially spread or introduce invasive species within the Biological Study Area. The distribution of invasive plant species is scattered throughout the Biological Study Area and most common in ruderal/disturbed areas along the edges of U.S. 101. The project has the potential to cause an increase in invasive species into communities and areas not currently dominated by them. However, the project also has an opportunity to reduce the abundance

and spread of invasive species through avoidance and minimization efforts and restoration plantings. See below for a list of avoidance and minimization measures. No mitigation measures are needed.

Special-Status Plant Species

While potential habitat occurs within the Biological Study Area for several plant taxa included in Table 2.3, only two species (Hardham's evening-primrose and elegant buckwheat) were observed within the Biological Study Area during botanical surveys in 2023. During botanical surveys, Caltrans biologists also noted habitat types and suitability, soil conditions and underlying geology. Based on these observations and the requirements of regionally occurring listed plant species, Caltrans has determined that federal and state listed plant species are not present within the Biological Study Area. Of the federally listed plant species included in Table 2.3, the Federal Endangered Species Act Section 7 effects determination is the proposed project will have *no effect* on marsh sandwort and purple amole. No federally designated critical habitat for federally listed plant species occurs within the Biological Study Area.

Hardham's Evening-Primrose

The project would avoid impacts to Hardham's evening-primrose occurring within the Area of Potential Impact. The population west of the San Antonio River can be avoided and would have environmentally sensitive area fencing for protection. See below for a list of avoidance and minimization measures. No mitigation measures are needed.

Elegant Buckwheat

The project may temporarily impact elegant buckwheat occurring within the Area of Potential Impact. The population west of the San Antonio River can be avoided and would have environmentally sensitive area fencing for protection. The population east of the San Antonio River, on Camp Roberts property, may be temporarily impacted from bridge construction staging activities. See below for a list of avoidance and minimization measures. No mitigation measures are needed.

Special-Status Animal Species

South-Central California Coast Steelhead

The only suitable habitat for steelhead within the Biological Study Area occurs at the San Antonio River. The stream is an intermittent to perennial tributary to the Salinas River within the upper Salinas River watershed. No steelhead were observed during surveys in 2023, and there are no known reported occurrences of this species within 5 miles of the Biological Study Area. During a site visit with Caltrans on August 28, 2024, California Department of Fish and Wildlife staff concurred with Caltrans' assessment that the existing bridge is not imposing a fish passage barrier and that the placement of new bridge piers outside of the active channel is ideal.

If present within the Area of Potential Impacts during project activities, individual steelhead may be directly impacted during stream diversion and dewatering operations. Potential indirect impacts to steelhead from the project may also occur and include sediment deposition downstream of the work area, which may adversely impact downstream water quality. However, these potential indirect impacts to steelhead would be avoided through the use of appropriate silt and erosion control measures. Alternative 1 would require an estimated 254 fewer working days (one working season less) for construction of the northbound San Antonio River Bridge, therefore posing less of a temporary impact to the species.

The Federal Endangered Species Act Section 7 effects determination is that the proposed project *may affect, and is likely to adversely affect* South-Central California Coast steelhead. The Federal Endangered Species Act Section 7 effects determination is that the proposed project *may affect, and is not likely to adversely affect,* designated critical habitat for steelhead.

The project has the potential to result in take of steelhead; therefore, Caltrans must consult with National Oceanic and Atmospheric Administration Fisheries under Federal Endangered Species Act Section 7 to obtain a Biological Opinion for the project. The Biological Opinion will include several reasonable and prudent measures, terms, and conditions to reduce the effects of the project on steelhead and its habitat. The avoidance and minimization measures below would minimize potential project-related impacts to steelhead. This is in addition to avoidance, minimization, and compensatory mitigation measures for impacts to streams and riparian areas. These streams and riparian areas provide cover and shade for steelhead.

Existing human-made structures in the channel (i.e., bridge footings) that may create a migration barrier under some flow conditions would be removed to optimize fish passage. The proposed avoidance and minimization measures would serve to reduce impacts to individual steelhead, and there would be no long-term impacts associated with the project on steelhead; therefore, no mitigation is proposed.

California Red-Legged Frog

Though suitable habitat for the California red-legged frog is present within the Biological Study Area, presence of the species is not anticipated based on recent and historical data from the area. The Federal Endangered Species Act Section 7 effects determination is that the proposed project will have *no effect* to the California red-legged frog.

Avoidance and minimizations measures are not proposed for the California red-legged frog because the project is not anticipated to affect the species. Preconstruction surveys for other listed species would be implemented and if, in the unlikely event California red-legged frogs are detected, Caltrans will

immediately notify the U.S. Fish and Wildlife Service and initiate Section 7 Consultation to obtain a Biological Opinion prior to work activities.

Southwestern Pond Turtle

Project implementation could result in impacts to southwestern pond turtles, if they are present within the Area of Potential Impact during construction. Direct impacts to this species could occur if individuals are present in the construction area during activities (such as dewatering, excavating, grading, grubbing, and vegetation removal) from injury, mortality, construction-related noise, and general disturbance. See Table 2.9 for acreages of permanent and temporary habitat impacts. Project implementation has potential to indirectly affect this species via adverse effects to water quality.

Alternative 1 and Alternative 2 bridge designs have the same footprint and therefore the same permanent and temporary impact areas for the species. The main difference between the two alternatives is the temporary impact. Alternative 2 would require 254 more working days to complete. Alternative 2 would incur impacts to southwestern pond turtle habitat for a longer duration, including an extra season.

Implementation of the recommended avoidance and minimization measures outlined below and the other measures presented in previous sections to maintain water quality are expected to fully avoid or minimize potential impacts to the southwestern pond turtle.

The Federal Endangered Species Act Section 7 effects determination for the southwestern pond turtle is that the proposed project *may affect, and is likely to adversely affect* the species. The basis for this determination is that the pond turtle was observed in the project vicinity and complete avoidance may not be feasible.

Table 2.9. Estimated Impact Area to Southwestern Pond Turtle Suitable Habitat

Habitat Type	Permanent Impact (acres)	Temporary Impact (acres)
Aquatic	+0.0074 net benefit	0.43
Upland	+ 0.0131 net benefit	2.80

See below for a list of avoidance and minimization measures. The project would have a net increase in suitable pond turtle habitat through the reestablishment of streambank along the San Antonio River. No additional mitigation for the species is proposed.

Western Spadefoot

Project construction could result in the injury or mortality of western spadefoot (if present) during clearing and grubbing operations in the areas surrounding bridge replacements and culvert repair and replacements. The potential need to capture and relocate the species could subject the animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot-traffic or construction equipment.

In addition to direct adverse effects from initial ground-disturbing activities, ongoing construction activities may affect the species. Western spadefoots are sensitive to noise and may break dormancy and emerge from their burrows in response to noise disturbance. Disturbances that cause western spadefoots to emerge at inappropriate times could result in mortality or reduced fitness. Because western spadefoots are dependent on moisture from underground burrows to survive the hot and dry summers, emerging when rains are not present may cause dehydration and withering of individuals. If western spadefoots use the energy to emerge at inappropriate times, and prey species are not present, they may not have the energy available to return into underground burrows and resurface when conditions are appropriate.

Alternative 1 and Alternative 2 bridge designs have the same footprint and therefore the same permanent and temporary impact areas to the western spadefoot. The main difference between the two alternatives is the temporary impact. Alternative 2 would require 254 more working days to complete. Alternative 2 would incur impacts to western spadefoot habitat for a longer duration, including an additional season.

The Federal Endangered Species Act Section 7 effects determination for the western spadefoot is that the proposed project *may affect, and is likely to adversely affect* the species. The basis for this determination is that suitable habitat is present and there are known occurrences in the project vicinity. The project would implement avoidance and minimization measures to protect the species during construction (see below).

The project would have a net increase in suitable western spadefoot habitat through the reestablishment of streambank along the San Antonio River. No mitigation for the western spadefoot is proposed.

San Joaquin Kit Fox

The Biological Study Area supports a prey base and is contiguous to extensive suitable habitat for the San Joaquin kit fox. This project would include all standard minimization and avoidance measures for kit fox per the standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance.

The Federal Endangered Species Act Section 7 effects determination is that the proposed project *may affect, and is not likely to adversely affect*, the San Joaquin kit fox. The basis for this determination is that the kit fox has not been observed in the project vicinity in recent years and the project would implement the standardized recommendations to protect the species during construction.

The standard avoidance and minimization measures below will be implemented where suitable habitat is present per the U.S Fish and Wildlife Service's standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance. With the inclusion of the avoidance and minimization measures, it is anticipated that the project is not likely to adversely affect the San Joaquin kit fox. Therefore, no mitigation measures are included for the species.

Least Bell's Vireo and Southwestern Willow Flycatcher

The project would temporarily impact suitable willow woodland and thicket riparian habitat at San Antonio River. Based on historical data in the vicinity of the Biological Study Area, there is very low potential for the least Bell's vireo and southwestern willow flycatcher to be present within the Area of Potential Impact. With the implementation of avoidance and minimization measures used to protect all nesting bird species protected by the Federal Endangered Species Act, California Endangered Species Act, the Migratory Bird Treaty Act, and California Fish and Game Code, the Federal Endangered Species Act Section 7 effects determination is that the proposed project *may affect, but is not likely to adversely affect*, the least Bell's vireo and southwestern willow flycatcher.

The least Bell's vireo and southwestern willow flycatcher are also state listed taxa under the California Endangered Species Act. No California Endangered Species Act take of these species is expected. However, if either of these taxa are detected during preconstruction surveys, coordination with the California Department of Fish and Wildlife will be required.

Bald Eagle

Bald eagles were seen soaring in the vicinity of the Biological Study Area during several site visits in 2022. In addition, overlay work is proposed at the Jolon Road interchange area, which is about 700 feet from a known bald eagle nest. Overlay work involves equipment such as cold planer/grinder, paver, asphalt truck, roller, loader, sweeper, water truck, and post driver, and foot workers (human activity). Grinders and guardrail post drivers are typically louder than ambient noise along U.S. 101 through the project area. Raptors can be sensitive to human presence, including increased noise levels (compared to ambient), and large equipment, such as tall cranes. Activities that are above the normal vehicle and traffic conditions at this site could disturb nesting bald eagles. These activities would be restricted to the existing

highway and off-ramp and are anticipated to be short in duration. No drainage work or staging is proposed in the vicinity of the known nest.

During recent technical assistance with the U.S. Fish and Wildlife Service for potential project impacts to bald eagles, the U.S. Fish and Wildlife Service Pacific Southwest Region Migratory Birds Program was suggested to help determine appropriate buffer size. This program provides recommended buffer zones for human activities around bald eagle nesting sites in California. The maximum recommended no-disturbance buffer for construction of roads and other linear utilities is 660 feet. The project Area of Potential Impact is just over 700 feet from the nest. This indicates that project activities are far enough away from the known nest to avoid disturbance.

With implementation of avoidance and minimization measures below, the project would not result in take of the bald eagle. No mitigation measures are needed.

Crotch Bumblebee

Most of the project activity involves work on the roadway itself or along highly disturbed shoulders and is not likely to result in impacts to Crotch bumblebee. However, temporary impacts to Crotch bumblebee could occur, if the species is present, during vegetation removal, staging, and ground-disturbing activities at locations beyond the highway shoulder where suitable habitat exists. Permanent impacts to the species are unlikely to occur due to the placement of bridge piers and rock slope protection at culverts in areas not suitable for nesting or foraging. Due to the limited quality and amount of foraging and nesting habitat for Crotch bumble bee within the Biological Study Area, the project is expected to have minimal impacts to Crotch bumblebee. While Crotch bumblebee is not anticipated to be nesting in the project area, additional focused surveys would be conducted during the design phase. If Crotch bumblebee is observed using the project area, Caltrans will coordinate with the California Department of Fish and Wildlife and apply for a 2081 Incidental Take Permit if necessary.

No impact to Crotch bumblebee is anticipated, therefore no mitigation is required. However, if surveys identify a Crotch bumblebee within the project area, the California Department of Fish and Wildlife will be consulted, and an Incidental Take Permit will be acquired if project activities cannot avoid impacts to the bumblebee. If impacts to the bumblebee cannot be avoided, any areas of suitable Crotch bumblebee habitat that are temporarily impacted during construction will be restored onsite at a minimum ratio of 1 to 1. Any areas of suitable Crotch bumblebee habitat that are permanently impacted will be replaced onsite at a minimum ratio of 2 to 1 and would include restoration with native flowering plants known to be used by Crotch bumblebee.

Monterey Hitch Fish

If present, individual Monterey hitch fish may be directly impacted by bridge replacement activities within San Antonio River. With implementation of avoidance and minimization measures below, these potential impacts would be avoided. Potential indirect impacts to Monterey hitch fish from the project may occur and include sediment deposition downstream of the work area, which may adversely impact downstream water quality. However, these potential indirect impacts to sensitive fish species would be avoided through the use of appropriate silt and erosion control measures. Alternative 1 requires fewer working days to complete and therefore would have less of a temporary impact to the species than Alternative 2 would.

Measures proposed for South-Central California Coast steelhead would also avoid and minimize impacts to Monterey hitch fish. Mitigation for Monterey hitch fish is not required, and none is proposed.

Monterey Dusky-Footed Woodrat

If Monterey dusky-footed woodrat nests are discovered during preconstruction surveys, direct mortality could occur to the species as a result of vegetation removal. Indirect impacts would occur to the habitat during proposed vegetation clearing of woodland habitat within the Area of Potential Impact. Avoidance and minimization measures for the species are listed below, and no mitigation is necessary.

American Badger and Salinas Pocket Mouse

If present during construction, the American badger and/or Salinas pocket mouse could be directly impacted by project activities. These species could be entombed during grading/excavating or otherwise injured by construction equipment. Noise, light, and other disturbance associated with construction could affect foraging and dispersal behaviors, if these species are present during project construction. The avoidance and minimization measures proposed for the San Joaquin kit fox would serve to avoid and minimize impacts to the American badger and Salinas pocket mouse.

Additional avoidance and minimization measures below would be implemented for the American badger and Salinas pocket mouse. No mitigation measures are necessary.

Reptile Species of Special Concern

Construction of the project could result in the injury or mortality of the northern California legless lizard, coast horned lizard, and San Joaquin coachwhip (if present) during clearing and grubbing operations in the areas surrounding bridge replacements and culvert repair and replacements. The potential need to capture and relocate these species could subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot-traffic or construction equipment.

The potential for these impacts is anticipated to be low because these species were not detected during surveys, and habitats bordering the highway are marginally suitable. Also, the coast horned lizard and San Joaquin coachwhip if present would likely be transient in the Biological Study Area. Avoidance and minimization measures specific to each of the potentially affected lizard species are listed below. Mitigation measures are not needed.

Townsend's Big-eared Bat, Pallid Bat, and Other Roosting Bats

Bats are present roosting in the San Antonio River bridge structures and within the post mile R7.78 culvert. Bats would be directly impacted by construction activities at these locations. Direct effects could result in injury or mortality of bats, and harassment could alter roosting behaviors. Other direct impacts to bats could result from noise and other disturbances associated with construction, which could also alter roosting behaviors. Replacing the San Antonio River Bridges may result in the permanent loss or alteration of roosting habitat, requiring mitigation. Implementation of pre-activity surveys, use of exclusionary devices prior to construction, and planning for suitable replacement habitat post-construction would reduce these potential adverse effects to roosting bat species.

Currently, Caltrans is evaluating two alternatives for the San Antonio River bridge replacements. Impacts to bats would differ depending on which structure type is selected.

Alternative 1 (Precast Wide Flange Girder): The proposed precast wide flange girder structures would be similar to the existing structures, preserving the night-roosting potential within the open cell soffits. However, the new structures would not require an expansion joint over the San Antonio River riparian area (as exists now), thereby eliminating the maternity and day-roost habitat potential. Day-roosting habitat (including maternity roosts) would need to be created within the new structures to mitigate for that loss (see measures below). Alternative 1 is anticipated to take 686 working days (three seasons) to complete.

Alternative 2 (Cast-in-Place Concrete Box Girder): The proposed cast-in-place concrete box girder would have enclosed hollow concrete cells below deck. This super-structure alternative would result in a loss of existing night-roosting habitat. Also (like Alternative 1), the new structure would not require an expansion joint over the San Antonio River riparian area, thereby eliminating the maternity and day-roosting habitat potential. Successful day-roosting mitigation has been implemented on other projects within Caltrans District 5 on new concrete box girder structures, but few examples of successful night-roosting mitigation are available. Day- and night-roosting habitat within the new structures would need to be created to mitigate for that loss (see measures below). Alternative 2 is estimated to take 940 working

days (four seasons) to complete, impacting the displaced bats for a longer period of time than Alternative 1 would.

The culvert at post mile R7.78 is proposed for replacement. The existing structure would be abandoned and replaced with new 48-inch reinforced concrete pipe and headwalls by trenchless method. The replacement structure would likely be less suitable for roosting bats due to the removal of the box culvert portion. Evidence of bat use and observations were only seen within the existing box culvert. Also, the new culvert would be straight with no angled joints. Based on several observations within Caltrans District 5, Townsend's big-eared bats prefer roosting within culverts that transition between pipe and box, and which are angled. Presumably, this is due to air flow and microclimate preferences. Replacement of the existing structure would reduce night- and day-roosting habitat for bats, including two Species of Special Concern: pallid bat and Townsend's big-eared bat. Mitigation is proposed below.

Tricolored Blackbird, Great Blue Heron, Yellow Warbler, Burrowing Owl, and Other Nesting Birds

The tricolored blackbird and burrowing owl were not detected during surveys and, though there is suitable habitat (marginal), the species are not expected to occur in the project area. The project would incorporate avoidance measures, and no take would occur.

Potential nesting habitat for a variety of bird species occurs throughout the Biological Study Area. Direct impacts to nesting birds could result during bridge replacement activities (nesting swallows) and if removal of vegetation occurs during the nesting season. These direct effects would result in the injury or mortality of nesting birds or harassment that could alter nesting behaviors. Indirect impacts could also result from noise and disturbance associated with construction during the nesting season, which could alter nesting behaviors. Alternative 1 would reduce the duration of potential construction impacts to nesting birds compared to Alternative 2. Indirect impacts could also occur from the temporary loss of nesting substrate as replacement habitat establishes post-construction.

The implementation of preconstruction nesting surveys and buffer exclusion zones (if necessary) would reduce the potential for adverse effects to nesting birds. See below for avoidance and minimization measures. Impacts to vegetation would be offset by replacement plantings within the project limits, which would also replace in-kind nesting habitat. No additional mitigation is proposed.

Avoidance, Minimization, and Mitigation Measures

Jurisdictional Features

Avoidance and Minimization Measures

The project would impact U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdictional areas within the Area of Potential Impact. The following avoidance and minimization measures will be implemented to reduce the potential impacts to these jurisdictional areas resulting from the project:

- BIO-1. Prior to construction, Caltrans shall obtain a Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alternation Agreement from the California Department of Fish and Wildlife. All permit terms and conditions will be incorporated into construction plans and implemented.
- BIO-2. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around jurisdictional features and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas shall be noted on design plans and delineated in the field prior to the start of construction activities.
- BIO-3. Construction activities in jurisdictional waters and temporary stream diversion, if needed, shall be timed to occur between June 1 and October 31 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at a seasonal minimum. Deviations from this work window will be made only with permission from the relevant regulatory agencies.
- BIO-4. During construction, all project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor onsite at all times during construction.
- BIO-5. During construction, erosion control measures shall be implemented. Temporary large sediment barrier, fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.
- BIO-6. During construction, the staging areas shall conform to Best Management Practices. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.
- BIO-7. Stream contours shall be restored as close as possible to their original condition.

Compensatory Mitigation Measures

BIO-8. Temporary impacts to jurisdictional areas will be restored at a 1-to-1 ratio. All native trees removed within jurisdictional areas will be replaced at a 3-to-1 ratio for trees less than 12 inches in diameter at breast height and at a 10-to-1 ratio for trees equal to or greater than 12 inches in diameter at breast height. Replacement plantings will include appropriate native tree and understory species. To ensure success, monitoring and an appropriate plant establishment period will be required, which will include regular inspections, weeding, and replacement.

BIO-9. Replacement plantings will be detailed in Caltrans' Landscape Architecture Landscape Planting Plan and the final Mitigation Monitoring Plan. The Mitigation Monitoring Plan will be developed in coordination with the project biologist and will include planting specifications and grading plans to ensure survival of planted vegetation and reestablishment of functions and values. The final Mitigation Monitoring Plan will detail mitigation commitments and will be consistent with standards and mitigation commitments from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife. The Mitigation Monitoring Plan will be prepared when more detailed construction plans are developed and will be finalized through the permit review process with regulatory agencies. Restoration plantings will consist of native riparian species and associated riparian understory and bank species.

Invasive Species

Avoidance and Minimization Measures

BIO-10. During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.

- BIO-11. Only clean fill shall be imported. When practicable, invasive exotic plants in the project site shall be removed and properly disposed of. Any plant species rated as "High" on the California Invasive Plant Council Invasive Plant Inventory that are removed from the construction site shall be taken to a landfill to prevent the spread of invasive species.
- BIO-12. Plant species that the California Invasive Plant Council, California Department of Agriculture, California Department of Fish and Wildlife, or other resource organizations consider to be invasive or potentially invasive will not be used in erosion control seed mix or to revegetate areas of disturbance. Caltrans erosion control mix will contain only native species to the Central Coast of California.
- BIO-13. Construction equipment shall be inspected as "weed-free" by Caltrans before entering the construction site. If necessary, wash stations onsite shall be established for construction equipment under the guidance of

Caltrans to avoid/minimize the spread of invasive plants and/or seed within the construction area.

Hardham's Evening-Primrose and Elegant Buckwheat

Avoidance and Minimization Measures

BIO-14. Prior to start of construction, a Caltrans-approved Biologist shall conduct an appropriately timed botanical survey on Camp Roberts property, within the Area of Potential Impact. If Hardham's evening-primrose or elegant buckwheat is detected, the number of individuals shall be estimated and boundaries of the occurrences shall be mapped. The mapped areas shall be noted as "sensitive plant areas" and avoided with Environmentally Sensitive Area fencing, where feasible.

BIO-15. If any of the mapped "sensitive plant areas" cannot be avoided, soil salvage shall be implemented. Salvaged soil will be stockpiled onsite and spread back over the disturbed area after construction completion.

BIO-16. Prior to start of construction, a Caltrans-approved Biologist shall conduct a worker environmental training program, including a description of Hardham's evening-primrose or elegant buckwheat and its habitat, the species' legal/protected status, location within the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating relevant environmental commitments.

BIO-17. New observations of Species of Special Concern or other specialstatus plant species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

South-Central California Coast Steelhead

Avoidance and Minimization Measures

BIO-18. In-stream work will take place between June 15 and October 31 in any given year, when the surface water within San Antonio River is likely to be at a seasonal minimum. Deviations from this work window will be made only with permission from the relevant regulatory agencies. During in-stream work, a qualified biologist will be retained with experience in steelhead biology and ecology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating fish species. During in-stream work, the biological monitor(s) will continuously monitor placement and removal of any required stream diversions and will capture stranded steelhead and other native fish species and relocate them to suitable habitat, as appropriate. The biologist(s) will capture steelhead stranded as a result of diversion/dewatering and relocate steelhead to the nearest suitable in-stream habitat. The biologist(s) will note the number of steelhead observed in the affected area, the number of steelhead relocated, and the date and time of the collection and relocation.

BIO-19. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes will be completely screened with no larger than 0.2-inch (5-millimeter) wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps will release the diverted water so that suspended sediment will not re-enter the stream. The form and function of pumps used during the dewatering activities will be checked daily, at a minimum, to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.

BIO-20. Design replacement bridge structures without scuppers, deck drains, or other facilities that drain storm water directly into the stream in order to prevent pollutants such as 6PPD-quinone (an oxidation product of 6PPD, an additive intended to prevent damage to tire rubber from ozone that is short for N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine) from directly entering waterways.

Southwestern Pond Turtle

Avoidance and Minimization Measures

BIO-21. The project includes Environmentally Sensitive Areas to minimize impacts to sensitive areas and species. The project plans would delineate Environmentally Sensitive Areas that restrict access to the minimum required for construction, minimizing impacts to the southwestern pond turtle and its habitat. No vehicle access within these Environmentally Sensitive Areas would be permitted. During construction, the Resident Engineer and biological monitor would determine and agree upon the exact placement of Environmentally Sensitive Area markers, based on the project plans, and would determine and agree upon the appropriate material for marking Environmentally Sensitive Areas.

BIO-22. Prior to construction, a qualified biologist will provide an environmental awareness training to all personnel on the potential for southwestern pond turtle to occur in the area of direct impact. The contractor shall submit a written request to the Resident Engineer 14 calendar days prior to the performance of any work to schedule training.

BIO-23. Prior to the start of excavation or construction activities, a qualified biologist will conduct a preconstruction survey for southwestern pond turtle. If any are found within the Area of Potential Impact, they will be relocated to a suitable location outside of the Area of Potential Impact. The qualified biologist will use the most current survey protocols available for the species to ensure highest level of species detection including visual encounter surveys and nesting survey techniques.

BIO-24. A qualified biologist shall be present onsite during all initial vegetation removal and ground-disturbing activities. If pond turtles are encountered, only a Service-approved biologist shall handle and relocate the animal.

BIO-25. The project shall avoid altering hydrology of and causing increased sedimentation rates into San Antonio River by minimizing soil compaction and treating all storm water before it is discharged into turtle habitat.

Western Spadefoot

Avoidance and Minimization Measures

BIO-26. During the winter season prior to start of construction, a qualified biologist shall survey areas of the project with suitable habitat during the wet season when pools/puddles would be present. If spadefoots are present, Caltrans shall coordinate with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife.

BIO-27. Seasonal Avoidance: Caltrans will schedule project activities to minimize adverse effects to the western spadefoot and its habitat. Disturbance to habitat will be confined to the dry season, generally May 1 through October 31 (or the first measurable fall rain of 1 inch or greater) because that is the time period when the western spadefoots are less likely to be moving through upland areas. However, if seasonal avoidance is not possible, grading and other disturbance in pools and ponds will occur only when they are dry, typically between July 15 and October 31. Work within a pool or wetland may begin prior to July 15 if the pool or wetland has been dry for a minimum of 30 days prior to initiating work.

BIO-28. Rain Event Limitations: No construction activities will occur during rain events or within 24 hours following a rain event. Prior to construction activities resuming, a qualified biologist will inspect the project area and all equipment/materials for the presence of the western spadefoot. Construction may continue 24 hours after the rain ceases if no precipitation is forecasted within 24 hours. If rain exceeds 0.5 inch during a 24-hour period, work will cease until no further rain is forecasted.

BIO-29. Preconstruction Survey: No more than 24 hours prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist with experience in the identification of all life stages of the western spadefoot will conduct a preconstruction survey within suitable habitat at the project site. The survey will consist of walking the subject area to determine possible presence of the species. The qualified biologist will investigate all areas that could be used by the western spadefoot for feeding, breeding, sheltering, movement, and other essential behaviors, such as small woody debris, refuse, burrows, etc.

BIO-30. Biological monitoring by a qualified biologist(s) will be carried out during initial ground-disturbing activities and is limited once the area of interest is cleared of species. If spadefoots are detected during initial ground disturbance monitoring, the qualified biologist(s) will periodically visit the site throughout the construction period. No construction work will be initiated until the biologist(s) determines that the work area is clear of the western spadefoot.

San Joaquin Kit Fox

Avoidance and Minimization Measures

BIO-31. Project employees will be directed to exercise caution when commuting within listed species habitats. A 20-mile-per-hour speed limit will be observed in all project areas, except on county roads and state and federal highways. Cross-country travel by vehicles will be prohibited outside of the project area unless authorized by the U.S. Fish and Wildlife Service. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

- BIO-32. Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a Caltrans or U.S. Fish and Wildlife Service-approved biologist. The program will consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology, legislative protection, and measures to avoid impacts to the species during project implementation.
- BIO-33. A litter control program will be initiated at each project site. No pets or firearms (except for law enforcement officers and security personnel) will be allowed onsite.
- BIO-34. Excavations deeper than 2 feet will be covered with plywood or similar material at the end of each workday, or escape ramps put in place to prevent any entrapment. Each excavation will be inspected thoroughly before being filled.
- BIO-35. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater stored on the construction site overnight will be thoroughly inspected for San Joaquin kit foxes prior to being buried, capped, or otherwise used or moved. If a San Joaquin kit fox is discovered inside a pipe, the pipe shall not be moved until the U.S. Fish and Wildlife Service has been consulted. If the San Joaquin kit fox is in direct harm's way, the pipe may be moved to a safe location one time under the direct supervision of a qualified biologist.
- BIO-36. The Resident Engineer or their designee will be responsible for implementing these conservation measures, and the Caltrans biologist will represent the point of contact for the project.
- BIO-37. Restoration and vegetation work will use California endemic plant materials from onsite or local sources. Loss of soil from runoff or erosion will be prevented using fiber rolls or similar material and by implementing the best management practices from the Caltrans National Pollutant Discharge Elimination System statewide stormwater permit.

BIO-38. Prior to any ground disturbance in suitable habitat, a preconstruction survey will be conducted for San Joaquin kit fox. The preconstruction survey will be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance or construction activities. The survey will identify any potential kit fox dens. The status of all potential dens will be determined and mapped. Potential dens will be monitored with tracking medium or infrared camera for three consecutive days to determine the current use. If no kit fox activity is observed during this period and no other kit fox sign is observed in the vicinity, then the den is assumed unoccupied. If kit fox activity is observed at a den, Caltrans will contact the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife for further coordination.

BIO-39. Written results of the preconstruction survey will be submitted to the U.S. Fish and Wildlife Service within five days after survey completion and prior to the start of ground disturbance. If a natal or pupping den is discovered within the project area or within 200 feet of the project boundary, the U.S. Fish and Wildlife Service will be notified immediately. If the preconstruction survey reveals an active natal den or new information, Caltrans will notify the U.S. Fish and Wildlife Service immediately for further consultation.

Least Bell's Vireo and Southwestern Willow Flycatcher Avoidance and Minimization Measures

BIO-40. Prior to construction, vegetation removal shall be scheduled to occur from September 2 to January 31, outside of the typical nesting bird season if possible, to avoid potential impacts to nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 1), a nesting bird survey shall be conducted by a qualified biologist no more than five calendar days prior to construction.

BIO-41. If least Bell's vireo or southwestern willow flycatcher are observed within 100 feet of the project area during the course of construction or during the preconstruction surveys, all project activities shall cease immediately, and the relevant resource agencies shall be consulted. Development of additional avoidance and minimization measures will occur as necessary in coordination with the pertinent agencies.

Bald Eagle

Avoidance and Minimization Measures

BIO-42. Work activities between February 1 and September 1 (bald eagle nesting season), including staging, within a line-of-sight of the known bald eagle nest (primarily only Jolon Road northbound off-ramp), will not occur until a qualified biologist conducts a survey to determine nest activity.

BIO-43. If the previously identified bald eagle nest is inactive, work may commence. If it is active and there is no line-of-sight, work may occur if the biologist determines work activities will not disturb the nest. If it is active and there is line-of-sight, work will not commence until the qualified biologist has determined that nesting is complete and eagles have fledged.

BIO-44. Caltrans will submit the project description, mapping, and proposed avoidance measures for review by the U.S. Fish and Wildlife Service for Technical Assistance. The U.S. Fish and Wildlife Service will provide feedback and any additional measures that can be incorporated into the project to ensure no impacts to nesting eagles.

BIO-45. If any additional bald eagle nests are identified prior to or during construction, Caltrans will conduct technical assistance with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife, as needed, to avoid potential adverse effects.

Crotch Bumblebee

Avoidance and Minimization Measures

BIO-46. During the design phase, a Crotch bumblebee habitat assessment will be conducted following the California Department of Fish and Wildlife's "Survey Considerations for California Endangered Species Act Candidate Bumblebee Species" dated June 6, 2023. If Crotch bumblebee habitat is determined to be present within the project site:

- A focused non-invasive survey will be conducted within suitable habitat prior to ground disturbance for Crotch bumblebee and its nests, following California Department of Fish and Wildlife guidance (2023).
- A Worker Environmental Awareness Training will be provided for all construction personnel prior to the start of any ground disturbance or vegetation removal to discuss Crotch bumblebee identification, ecology, habitat, and avoidance and minimization measures.
- Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed, as appropriate, around Crotch bumblebee feeding and nesting habitat to be avoided. Environmentally Sensitive Areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-47. If Crotch bumblebee is identified in the project area, Caltrans will coordinate with the California Department of Fish and Wildlife and, if necessary, a 2081 Incidental Take Permit will be acquired and the following would be implemented:

 Any blooming flowering plants that are scoped for removal would be inspected immediately prior to work to ensure that no bumblebees are on or near the plant. If a bumblebee is identified on or adjacent to vegetation that is to be removed, work in that area would not proceed until the bumblebee leaves the area of its own accord.

• No work will occur within 50 feet of an active Crotch bumblebee nest unless approved by the California Department of Fish and Wildlife.

Monterey Dusky-Footed Woodrat

Avoidance and Minimization Measures

BIO-48. Prior to implementation of proposed project activities, a preconstruction visual survey will be conducted within suitable woodrat habitat in the Area of Potential Impact to determine the presence or absence of woodrat nests.

BIO-49. If woodrat nests are located during this survey, avoid them and establish an Environmentally Sensitive Area with a 25-foot buffer around each.

BIO-50. To the extent feasible, project activities requiring grading or vegetation removal within the 25-foot protective buffer should occur only during the non-breeding season (October 1 to December 31) to avoid noise impacts to any breeding woodrats that may occupy the nest from January through September.

BIO-51. If project activities cannot avoid impacting or removing the nest, then the nest should be dismantled by hand prior to grading or vegetation removal activities. The dismantling shall occur during the non-breeding season (October 1 to December 31) and shall be conducted so that the nest material is removed starting on the side where most impacts will occur and ending on the side where the most habitat will be undisturbed, which will allow for any woodrats in the nest to escape into adjacent undisturbed habitat. The dismantled nest materials shall be placed onto a tarp (or equivalent) and relocated to a location determined by a qualified biologist to be suitable alternative habitat.

BIO-52. If young are encountered during nest dismantling, the dismantling activity should be stopped and the material replaced back on the nest and the nest should be left alone and rechecked in two to three weeks to see if the young are out of the nest or capable of being out on their own (as determined by a qualified biologist); once the young can fend for themselves, the nest dismantling can continue.

BIO-53. Prior to construction in jurisdictional areas, Caltrans shall acquire a Streambed Alteration Agreement from the California Department of Fish and Wildlife pursuant to Fish and Game Code Section 1600 et seq. and shall incorporate any additional measures relating to this species not otherwise addressed in the Natural Environment Study.

American Badger and Salinas Pocket Mouse

Avoidance and Minimization Measures

The following additional avoidance and minimization measures will be implemented for American badger:

BIO-54. Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a qualified biologist. The program will consist of a brief presentation by persons knowledgeable in American badger biology, legislative protection, and measures to avoid impacts to the species during project implementation.

BIO-55. The project plans shall delineate Environmentally Sensitive Areas to minimize impacts to sensitive areas and species by limiting access to the minimum required for construction within the Area of Potential Impact. No vehicle access within the Environmentally Sensitive Areas would occur.

BIO-56. Prior to any ground disturbance in suitable habitat, a preconstruction survey will be conducted for American badger. The survey will identify any potential badger dens. The status of all potential dens will be determined and mapped. Potentially active dens will be monitored with tracking medium or infrared camera for three consecutive days to determine the current use. If no badger activity is observed during this period, then the den will be excavated by hand or carefully with equipment provided by the contractor, under the direction of the biologist to preclude subsequent use. If American badger activity is observed at a den, Caltrans will coordinate with California Department of Fish and Wildlife for suitable buffer implementation or exclusion methods. Observations of Species of Special Concern, or other special-status species shall be documented on California Department of Fish and Wildlife forms and submitted to the California Department of Fish and Wildlife upon project completion.

The following additional avoidance and minimization measures will be implemented for Salinas pocket mouse:

BIO-57. Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a qualified biologist. The program will consist of a brief presentation by persons knowledgeable in Salinas pocket mouse biology, legislative protection, and measures to avoid impacts to the species during project implementation.

BIO-58. The project plans shall delineate Environmentally Sensitive Areas to minimize impacts to sensitive areas and species by limiting access to the minimum required for construction within the Area of Potential Impact. No vehicle access within the Environmentally Sensitive Areas would occur.

BIO-59. A qualified biologist shall be present during initial ground disturbance activities to capture and relocate any Salinas pocket mice that may be encountered during construction operations. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

Reptile Species of Special Concern

Avoidance and Minimization Measures

The following additional avoidance and minimization measures specific to Northern California legless lizard shall be implemented:

BIO-60. A qualified biologist shall conduct preconstruction surveys for legless lizards within five calendar days before initial ground disturbance proposed within coast live oak woodlands and/or prior to tree removal. Where feasible, this survey shall include systematic subsurface searching (raking suitable habitat) because legless lizards are fossorial.

BIO-61. If any legless lizards are discovered during preconstruction surveys, they will be relocated to a nearby area with suitable habitat similar to where they were discovered (as stated above for other Species of Special Concern reptiles and amphibians). Also, if discovered during preconstruction surveys, a qualified biologist will be present during oak tree removal to safely relocate any legless lizards that could be uncovered during tree removal.

The following avoidance and minimization measures will be implemented for coast horned lizard and San Joaquin coachwhip:

BIO-62. Prior to construction, a qualified biologist shall survey the Area of Potential Impact and, if present, capture and relocate any coast horned lizards and San Joaquin coachwhips to the nearest suitable habitat outside of the Area of Potential Impact. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

BIO-63. The project plans shall delineate Environmentally Sensitive Areas to minimize impacts to sensitive areas and species by limiting access to the minimum required for construction within the Area of Potential Impact. No vehicle access within the Environmentally Sensitive Areas will occur.

BIO-64. A qualified biologist shall be present during initial ground disturbance activities to capture and relocate any coast horned lizards and/or San Joaquin coachwhips that may be encountered during construction operations.

Townsend's Big-eared Bat, Pallid Bat, and Other Roosting Bats Avoidance and Minimization Measures

The following measures are recommended to avoid and minimize potential impacts to roosting bat species:

BIO-65. Tree removal shall be scheduled to occur from September 1 to February 14, outside of the typical bat maternity roosting season, if possible, to avoid potential impacts to tree roosting bats. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the bat maternity roosting season (February 15 to August 31), a bat roost survey shall be conducted by a biologist determined qualified by Caltrans within 14 calendar days prior to construction. If roosting bats are found, a qualified Caltrans biologist shall determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that roosting activity has ceased, or exclusionary methods have successfully evicted roosting bats.

BIO-66. Since bats are known to roost on the subject bridges and culvert, a Bat Exclusion Plan will be prepared by a qualified biologist for approval at least 30 days prior to exclusion installation. If it is determined that bat exclusion is necessary and the plan feasible, a qualified biologist will be contracted to oversee implementation of passive exclusion in roosting areas. Suitable exclusionary materials may include Visqueen poly sheeting, foam filling (for crevices), or other mechanical devices. Netting is not a suitable exclusionary material. Installation of bat exclusion shall occur only during the non-maternity season (September 1 to February 14), the year prior to construction. Permanent exclusion can be installed after a qualified biologist has performed emergence surveys to confirm that all bats have been successfully evicted from the structure.

BIO-67. Preconstruction surveys will be conducted by a qualified biologist to identify potential roosting bat activity. The biologist(s) conducting the preconstruction surveys will also identify the nature of the bat use of the area (i.e., no roosting, night roost, day roost, maternity roost). If roosting bat activity is observed during the preconstruction survey process, the following measures will be implemented:

- A focused survey to determine if bats are roosting at the bridges, within suitable culverts, or in suitable trees will be conducted by a qualified biologist before commencement of construction activities and before installation of exclusionary devices. Focused surveys at the bridges site will consist of at least two daytime and two dusk surveys.
- If bridge, culvert, and/or tree removal activities are proposed during the typical maternal bat roosting season (February 15 to August 31) and exclusion has not yet been installed, an additional bat roost survey will be conducted by a qualified biologist one week prior to these activities to

- determine the presence/absence of roosting bats. If maternal bat roosts are observed, the roost(s) will not be disturbed or obstructed until a qualified biologist determines that the roost(s) is no longer being used.
- The roost(s) will be designated as an Environmentally Sensitive Area and all construction activities shall be avoided within 100 feet until the end of the maternity roosting season (beginning of September) and the qualified biologist confirms that the roost(s) are no longer occupied. No roost exclusion will be conducted if maternity roosts are detected.

Mitigation Measure

BIO-68. Impacts to roosting bats will be compensated through the development and implementation of a Bat Protection and Mitigation Plan in coordination with the California Department of Fish and Wildlife. Roosting habitat will be created on the new structures. Design components of bat mitigation to be incorporated into structures will be completed between 60 percent and 95 percent designs. The plan will include post-construction monitoring of roosts for five years.

Tricolored Blackbird, Great Blue Heron, Yellow Warbler, Burrowing Owl, and Other Nesting Birds

Avoidance and Minimization Measures

BIO-69. Prior to construction, vegetation removal shall be scheduled to occur from October 1 to January 31, outside of the typical nesting bird season if possible, to avoid potential impacts to nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 30), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than 10 calendar days prior to construction. If an active nest is found, Caltrans shall implement an appropriate buffer or monitoring strategy based on the habits and needs of the species. The buffer area or monitoring strategy shall be implemented until a qualified biologist has determined that juveniles have fledged and are no longer reliant on the nest or nesting activity has otherwise ceased.

- BIO-70. During construction, active bird nests shall not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time.
- BIO-71. Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around the dripline of trees to be protected within project limits.
- BIO-72. All initial clearing/grubbing and vegetation removal shall be monitored and documented by a qualified biologist regardless of time of year.

The following additional avoidance measures shall be implemented for tricolored blackbird:

BIO-73. A qualified biologist will conduct preconstruction surveys for tricolored blackbird in suitable habitats within the project area, within 14 days prior to project commencement. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

BIO-74. If a tricolored blackbird is detected within the project limits or within 250 feet of the construction activities, the qualified biologist will determine whether a nesting colony is present in the area. If nesting tricolored blackbirds are confirmed, the California Department of Fish and Wildlife will be notified, and a buffer zone for the colony will be defined. No take of tricolored blackbird shall occur.

The following additional measures shall be implemented for burrowing owl:

BIO-75. A qualified biologist will conduct preconstruction surveys for burrowing owl in grassland habitats of the project area, within 30 days prior to project commencement. The biologist will survey for burrows with molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near the burrow entrance and listen for burrowing owl calls. If burrowing owls are confirmed, the California Department of Fish and Wildlife will be notified, and an avoidance buffer zone will be defined. No take of burrowing owls shall occur. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

2.1.5 Cultural Resources

Considering the information in the 2024 Historic Property Survey Report with attached Archaeological Survey, Extended Phase I, and Phase II Evaluation Report, and the 2025 Historic Property Survey with attached Supplemental Archaeological Survey Report, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Less Than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Less Than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact

Affected Environment

A Historic Property Survey Report was prepared in July 2024. The term "cultural resources" as used in this document refers to the "built environment" (for example, structures, bridges, railroads, water conveyance systems), 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."

Area of Potential Effects

The Area of Potential Effects was established as the entire area where project activities may directly or indirectly affect cultural resources. The Area of Potential Effects encompasses U.S. 101 within the project limits, the two Camp Roberts rest areas, the area below the San Antonio River Bridges, as well as the entire site boundary for one archaeological resource.

Project Area Cultural Resources

Background Research

Table 2.9 shows the chronology of the Central Coast area, from the Late period (some 700 years ago) back to the Millingstone period (5,500 to 10,000 years ago). For the Native American population, its social structure, territory, and means of obtaining food evolved over time, as noted in the Interpretations column of the table.

Table 2.9. Central Coast Chronology

Period	Years Before Present (BP) Range	Interpretations
Late	700-Historic Contact	Population increase; acorn important; increased territoriality; intensified subsistence.
Middle/Late Transition	1,000–700	Medieval Climatic Anomaly: droughts, settlement disruptions, decrease in regional trade, population decline.
Middle	2,600–1,000	Logistically organized subsistence- settlement; continued importance of acorn; fishing and large game more important.
Early	5,500-2,600	Beginning of intensified acorn use; more inter-group and inter-regional exchange.
Millingstone	10,000–5,500	Broad-spectrum foraging.

In July 2024, Caltrans completed a Historic Property Survey Report for the current project's Area of Potential Effect, which included an Archaeological Survey, Extended Phase I, and Archaeological Evaluation Report. Archaeological studies resulted in the identification of nine cultural resources within the Area of Potential Effect, as well as four areas with elevated sensitivity for buried archaeological deposits. Five of the cultural resources were determined exempt from further study and evaluation: a historic highway segment, and four newly recorded isolated artifacts. One of the previously recorded archaeological sites was previously determined ineligible for listing on the National Register of Historic Places, with concurrence from the State Historic Preservation Officer. Three archaeological sites were evaluated as a result of archaeological studies. Two of the three sites were determined ineligible for listing on the National Register of Historic Places. One of these sites could not be evaluated entirely, due to the size of the resources and limited access. The areas identified as highly sensitive for buried archaeological deposits were negative of any cultural resources.

Native American Consultation

Native American consultation is being conducted by Caltrans. A list of Native American contacts and a search of the Sacred Lands File from the Native American Heritage Commission were requested on November 10, 2022. The Native American Heritage Commission responded on December 6, 2022, that the results of the Sacred Lands File check were negative and provided a list of Native American tribes and individuals who may have knowledge of cultural resources in the proposed project area. On December 6, 2022, Caltrans distributed letters via email to the Native American contacts provided by the Sacred Lands File, thereby initiating consultation under Assembly Bill 52 and Section 106 of the National Historic Preservation Act.

The Salinan Tribe of Monterey and San Luis Obispo Counties, Xolon-Salinan Tribe, and Amah Mutsun Tribal Band of Mission San Juan Bautista would like to consult on the project. All three groups have asked to monitor during construction. Also, the Amah Mutsun Tribal Band of Mission San Juan Bautista requested cultural sensitivity training be provided to construction personnel.

A member of the Salinan Tribe of Monterey and San Luis Obispo Counties was present for all archaeological excavations. All artifacts recovered from the Caltrans right-of-way were repatriated in consultation with the Salinan Tribe of Monterey and San Luis Obispo Counties. Native American consultation will be ongoing throughout the life of the project.

Environmental Consequences

National Register of Historic Places Eligibility

The significance of Native American archaeological resources that may be discovered within the study area is best measured by applying National Register eligibility criteria (36 Code of Federal Regulations 60.4). These criteria state, in part, that: The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, materials, workmanship, feeling, and association, and

- (A) That are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) That are associated with the lives of persons significant in our past; or
- (C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) That have yielded, or may be likely to yield, information important in prehistory or history.

Pre-contact sites may be found eligible for the National Register using any of the four criteria, or any combination thereof.

The State Historic Preservation Officer concurred with all the District 5 recommendations and eligibility determinations in July 2024. As a result of cultural studies, one archaeological site remains in the project Area of Potential Effect. The site was not evaluated in its entirety due to size of the resource, restricted access, and low potential project impacts outside of the Area of Direct Impacts. Only the portion of the site within the Area of Direct Impacts was subject to evaluation. The portion evaluated did not meet

requirements to address research themes and was determined to not contribute to the site's eligibility for listing on the National Register of Historic Places. The State Historic Preservation Officer concurred on July 18, 2024. As a result of some of the site remaining untested, Caltrans assumed the resource is eligible for listing on the National Register, under Criterion D, for the purposes of this project only.

Caltrans will consult with the State Historic Preservation Officer for a determination of project effects. A Finding of No Adverse Effect – Non-Standard Conditions, Environmentally Sensitive Area is anticipated.

The portion of the site beyond the Area of Potential Effect will be protected by the establishment of an Environmentally Sensitive Area. Project impacts will not adversely affect the site because they are proposed within the non-contributing portion of the site. Standard Specification 14-2.03B shall be complied with. Archaeological monitoring areas will be determined during the project's final design phase and delineated prior to the start of construction. In addition, there will be tribal monitoring during construction.

Despite efforts to identify cultural resources, a slight possibility remains that additional resources may be encountered. Standard Specification 14-2.03A shall be complied with. This Standard Specification states that if previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted within a 60-foot radius of the discovery until a qualified archaeologist can assess the significance of the finding and give authorization to resume work.

Impacts to cultural resources would be less than significant.

Avoidance and Minimization Measures

ARCH-1. An Environmentally Sensitive Area Action Plan will be prepared prior to project construction. All measures and guidance included in the plan will be complied with.

ARCH-2. All ground disturbance during construction will be monitored by archaeological and tribal monitors.

2.1.6 Energy

Project construction would require the use of energy resources. Construction of the project is necessary to restore assets to good condition and to meet current standards. During operation, the one traffic count/census station and six traffic census stations would continue to use electricity as necessary to maintain operation. Though energy would be required to construct and operate the project, the use of energy would not be wasteful, inefficient, or unnecessary. Therefore, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

2.1.7 Geology and Soils

Considering the information in the paleontological identification report completed on June 13, 2024, and Geologic Hazards Report completed on June 5, 2024, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
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
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
iv) Landslides?	Less Than Significant Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	Less Than Significant Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	No Impact

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
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 lungat
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less Than Significant Impact With Mitigation Incorporated

Affected Environment

Geologic and Soil Conditions

The California Geological Survey record and U.S. Geological Survey Quaternary Fault and Fold database indicate the proposed project improvements are not within an Alquist Priolo Earthquake Fault Zone. The project improvements also are not within 1,000 feet of any mapped fault that is Holocene (up to 11,000 years old) or younger.

The San Andreas fault zone is about 16 miles east of the project limit, and the Rinconada Fault zone is about 5 miles west of the project limits. Both could be sources of strong seismic ground shaking. The Rinconada Fault has a maximum magnitude of 7.4, while the San Andreas Fault has a maximum magnitude of 7.9 according to the foundation report for the San Antonio River Bridges. The risk of strong seismic ground shaking on this section of U.S. 101 would likely be due to major events occurring in either of these two fault zones.

The Geologic Hazards Map Geographic Information Systems application from Monterey County's website contains liquefaction data along U.S. 101. The Geologic Hazards Map indicates that within the project limits, liquefaction potential ranges from low to high. Table 2.11 shows the soil liquefaction potential within the project limits.

Table 2.11. Summary of Liquefaction Potential

Post Mile Start	Post Mile End	Liquefaction Potential
R1.9	R2.2	Moderate
R2.2	R2.45	High
R2.45	R2.6	Moderate
R2.6	R3.9	Low
R3.9	R6.7	Moderate
R6.7	R6.8	High
R6.8	R7.54	Moderate
R7.54	R9.6	Low
R9.6	R9.7	Moderate

The alignment of U.S. 101 runs along mostly gently sloping terrain with minimal landslide risk. According to the California Geological Survey's landslide inventory database and the Geologic Hazards Map application from Monterey County's Geographic Information Systems Department, landslide hazards are low. Both seismic and/or heavy rainfall events may contribute to landslide hazards along cut slopes along embankment or cut slopes in localized areas.

Monterey County's online Geologic Hazards Map rated the soil erosion potential on certain sections of U.S. 101. The soil erosion potential ranges from low to high within the project limits. The results are shown in Table 2.12.

Post Mile Start Post Mile End Soil Erosion Potential R1.9 R2.2 Low R2.2 R2.46 Moderate R2.46 R3.23 Low R3.23 R3.55 Moderate R3.5 R5.34 Low R5.34 R7.1 Moderate R7.1 R7.39 High R7.39 R7.5 Moderate R7.5 R7.85 High R7.85 R9.6 Moderate R9.6 R9.63 High R9.7 R9.63 Moderate

Table 2.12. Summary of Soil Erosion Potential

Upon review of geologic maps available in the U.S. Geological Survey's database, all proposed improvements in the project limit are mostly situated on structural fill underlaid with stream fill alluvium and old terrace alluvium composed of clay, sand, and gravel associated with the Paso Robles Formation. The Paso Robles Formation is generally made up of an alluvial conglomerate of pebbles and shale from the Monterey Formation. All alluvium outside of the Paso Robles Formation is susceptible to liquefaction, as addressed above.

Paleontology

Paleontological resources are the remains or traces of once-living organisms that are preserved in the geologic record as fossils. Paleontological resources can include body fossils (e.g., bones, teeth, shells, leaves), trace fossils (e.g., tracks, trails, burrows, coprolites), and microfossils (e.g., pollen grains, spores, diatoms). Fossils are generally considered to be older than about

11,700 years (the end of the Pleistocene Epoch), but organic remains older than middle Holocene age (about 5,000 years) can also be considered to represent fossils because they are part of the record of past life. Paleontological resources also include fossil localities and the formation or rock unit containing the fossils.

Fossils are considered important scientific and educational resources because they serve as direct and indirect evidence of past life and are used to understand the history of life on Earth, and of past environments, ecosystems, and climates. Fossils can answer questions relating to patterns and processes of evolution and extinction, and how life has responded to changes in climates and environments through time.

Caltrans uses a three-part scale for assessing paleontological potential. An abbreviated description of each potential ranking is provided below:

- High Potential Rock units which, based on previous studies, contain or are likely to contain significant vertebrate, significant invertebrate, or significant plant fossils. Generally, earthwork that disturbs geologic units with a high paleontological potential will require monitoring and mitigation.
- Low Potential This category includes sedimentary rock units that are
 potentially fossiliferous but have not yielded significant fossils in the past,
 or contain common and/or widespread invertebrate fossils. Geologic units
 with a low paleontological potential generally do not require monitoring
 and mitigation, but it is possible that unanticipated fossil discoveries may
 arise during construction, requiring a Construction Change Order in order
 for a Principal Paleontologist to evaluate the resource.
- No Potential Rock units of intrusive igneous origin, most extrusive igneous rocks, and moderately to highly metamorphosed rocks are classified as having no potential for containing significant fossils. For projects encountering only these types of geologic units, paleontological resources can generally be eliminated as a concern, and no further action taken.

Geology as it Relates to Paleontology

Evaluation of the project paleontology, and geology as it relates to paleontology, included a review of available geologic mapping, geological and paleontological literature, the Caltrans paleontology mapping tool, and Google Street View Imagery. No field survey was conducted.

The project lies in the Coast Ranges Geomorphic Province of California, the greater geologic history of which is characterized by the subduction of the Farallon Plate beneath the North American Plate between 20 to 30 million years ago. The Coast Ranges extend along the majority of California's coast from the California-Oregon border to Point Arguello in Santa Barbara County in the south and consist of northwest-trending mountain ranges and valleys.

The Coast Ranges are composed of Mesozoic and Cenozoic sedimentary, igneous, and metamorphic strata. The Bradley Capital Preventative Maintenance project lies within the southern portion of the Coast Ranges.

The complex geologic history of the southern Coast Ranges is dominated by the development of and lateral movement along the San Andreas Fault Zone over the last 30 million years. Right-lateral movement along the fault initially opened up deep marine basins that filled with great thicknesses of marine sediments. Near the close of the Miocene, compressional tectonics across the region began a period of folding, faulting, and uplift of the Miocene and older sediments that initiated the emergence of the northwest-trending linear fabric that characterizes the modern Coast Ranges. During the Pliocene and Pleistocene, renewed subsidence resulted in the accumulation of thick sequences of marine and nonmarine sediments, many of which were subsequently uplifted and deformed by compressional tectonics.

U.S. 101 through the project limits roughly follows the course of the San Antonio River to the northwest while crossing a series of rolling hills and valleys carved by tributaries. There is a total elevation gain of 66 feet from northwest to southeast through the project limits.

Project Lithology

The lithology (scientific study and description of rocks) within the project limits is described below.

- Artificial fill/previously disturbed deposits: It is assumed that unmapped artificial fill is present within the project vicinity. These deposits were placed/disturbed during original construction of the highway, installation of utilities, and maintenance activities. Further, these activities likely disturbed native sediments adjacent to U.S. 101, so the presence of previously disturbed deposits in the project area is inferred. These previously disturbed deposits are presumed to exist within the uppermost 3 feet of the ground beneath the roadway prism.
- Holocene alluvial wash deposits (Qg): Youngest alluvial sediments composed of unconsolidated sand and gravel underlie the project limits between post miles R2.25 and 2.5, and post miles R6.7 and R6.9. This unit refers to sediments that have been deposited within recent and active stream channels associated with the San Antonio River and its tributaries.
- Holocene alluvial valley deposits (Qa): Young alluvial sediments
 composed of unconsolidated clay and sand underlie the project limits
 between post miles R1.9 and R2.25, post miles 2.5 and 6.7, post miles
 R6.9 and R7.1, and post miles R9.6 and R9.7. These deposits are
 associated with a depositional environment characterized by periodically
 flooding streams/rivers along a valley floor. Differentiating between alluvial
 valley and alluvial wash deposits can be difficult, as their appearance is

similar, and the thickness of the alluvial wash sediments can vary significantly within the project area.

Pleistocene Paso Robles Formation (QTp): Pleistocene Paso Robles
Formation sediments are mapped as being present beneath the project
post mile limits. Discerning the contact between old alluvial valley deposits
and the Paso Robles Formation can be difficult to discern, and some
previous investigations have arbitrarily placed the contact at the base of
the hills that border the Hames and San Antonio Valleys.

Most of the Paso Robles Formation consists of weakly hardened pebble conglomerate within a sand and clay matrix that is Pliocene to Pleistocene in age. These pebbles consist mainly of white siliceous shale originating from the Miocene-aged Monterey Formation. Smaller areas of the Paso Robles Formation consist of clay beds. The Paso Robles Formation represents deposition within large valleys formed by tectonic folding.

Project Paleontology

The paleontology (scientific study of ancient life from fossils and other remains from the geologic past) within the project limits is described below.

- Artificial fill/previously disturbed deposits: Previously disturbed deposits
 and artificial fill have no paleontological potential because any contained
 fossils have lost their original stratigraphic and geographic context and are
 not scientifically significant.
- Holocene alluvial wash deposits (Qg): Deposits of Holocene age have a low paleontological potential because their geologic age is too young to contain fossils. Unanticipated fossil discoveries within this unit as a result of project activities are unlikely.
- Holocene alluvial valley deposits (Qa): Deposits of Holocene age have a low paleontological potential because their geologic age is too young to contain fossils. Unanticipated fossil discoveries within this unit as a result of project activities are unlikely.
- Pleistocene Paso Robles Formation (QTp): The Paso Robles Formation is composed of Plio-Pleistocene sediments of both terrestrial and marine origin, and portions of the unit are known to host terrestrial and marine vertebrate fossils as well as marine invertebrate fossils. Examples of significant fossils sourced from the Paso Robles Formation include marine vertebrates like walrus, terrestrial vertebrates like lizards, birds, horses and camel and marine invertebrates like mollusks, crustaceans, and brachiopods.

Environmental Consequences

Geology and Soils

Geological information is gathered throughout the project design process and is being carefully considered when design decisions are made to ensure safety and reliability.

This project involves a bridge replacement, repaving, and culvert repair and replacement. The project lies in an area that could experience soil instability or the effects of earthquakes. However, the project itself would not increase risks associated with these geologic and soil conditions.

This project would not result in rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides. The project is not anticipated to increase risk of these occurrences, and the project would not increase safety risk during any of these events. The project would have a less than significant impact in these areas.

The project would include best management practices for reducing erosion during construction. During operation, the replaced and repaired culverts would efficiently convey water during storm events and reduce erosion. A less than significant impact would occur.

The project would not increase risks related to liquefaction of soil. Though the project would in part occur on soils that are prone to liquefaction, the project would not increase the likelihood of a liquefaction event or increase safety risks in the event of liquefaction.

The project would not directly or indirectly cause potential substantial adverse effects due to geologic or soil conditions. A less than significant overall impact would occur. No avoidance, minimization, or mitigation measures are necessary for geologic and soils conditions.

Paleontology

Direct impacts to paleontological resources occur when earthwork operations cut into the geologic units where fossils are buried and physically destroy the fossil remains. Therefore, only projects that involve earthwork (e.g., grading, trenching, large-diameter drilling), and disturb potential fossil-bearing sedimentary rocks (i.e., those with a high paleontological potential rating) have the potential to significantly impact paleontological resources.

Project activities involving structures and drainage improvements would require earthwork that could extend to depths that would disturb potential fossil-bearing sedimentary rocks. These activities include the replacement of the San Antonio River Bridges and the North Bradley Undercrossing, as well as the culvert replacements.

All other project activities, including roadway rehabilitation, guardrails and barriers, and transportation management system and signs, would involve minimal earthwork. The depth of excavation associated with these activities would likely be confined within previously disturbed deposits, which have no paleontological potential.

Table 2.12 shows the geologic units that may be affected by project earthwork and their sensitivity for impacts to paleontological resources.

Table 2.12. Paleontological Potential Ranking of Geologic Formations
Affected by Project Earthwork

Post Mile	Planned Improvement	Geologic Unit Name and Age	Paleontological Potential Rating	Impacts to Paleontological Resources
5.35	Cut and cover culvert replacement	Artificial fill/previously disturbed deposits- Recent	None	None: Any fossils present are not scientifically significant because they have lost their original stratigraphic and geographic context.
6.66	Replacement of San Antonio River Bridges	Alluvial valley deposits (Qa)- Holocene	Low	Unlikely: Geologic age is too young to contain fossils.
7.78	Jack and bore culvert replacement	Paso Robles Formation (QTp)- Pleistocene	High	Possible: Significant fossils documented in the unit, including limited occurrence of terrestrial and marine vertebrates, and marine invertebrates.
7.92	Cut and cover culvert replacement	Artificial fill/previously disturbed deposits- Recent	None	None: Any fossils present are not scientifically significant because they have lost their original stratigraphic and geographic context.
7.94	Replacement of North Bradley Undercrossing Structure	Paso Robles Formation (QTp)- Pleistocene	High	Possible: Significant fossils documented in the unit, including limited occurrence of terrestrial and marine vertebrates, and marine invertebrates.
9.16	Cut and cover culvert replacement	Artificial fill/previously disturbed deposits- Recent	None	None: Any fossils present are not scientifically significant because they have lost their original stratigraphic and geographic context.
9.66	Cut and cover culvert replacement	Artificial fill/previously disturbed deposits- Recent	None	None: Any fossils present are not scientifically significant because they have lost their original stratigraphic and geographic context.

The Paso Robles Formation is exposed in the hills on both sides of the project area, so it is likely that it underlies the Holocene alluvial valley deposits in a manner that does not conform to a regular geologic sequence and that Paso Robles Formation sediments are present beneath the project limits. The depth at which the Paso Robles Formation occurs in areas mapped as younger alluvium is unknown, but the depth of excavation associated with project activities within these alluvial valley and wash units are unlikely to affect Paso Robles Formation sediments.

The replacement of the culvert at post mile R7.78 via jack and bore methods and the replacement of the North Bradley Undercrossing have the potential to affect native Paso Robles Formation sediments that host significant fossils. Also, the exact depth of excavation that will be required for installation of the bents of the North Bradley Undercrossing is not known at this time.

Preparation of a Paleontological Mitigation Plan prior to construction would identify sensitive locations where monitoring could be required, procedures for collecting fossils, and provisions for the fossils to be curated at an appropriate repository and catalogued for scientific study in perpetuity. Preparation of the Paleontological Mitigation Plan would reduce the potential for significant impacts to paleontological resources.

Conclusions and Recommendations

No adverse effects to paleontological resources are expected for most of work locations included in the project. Structure replacement and culvert replacement activities at post mile R7.78 and post mile R7.94, respectively, have the potential to adversely affect paleontological resources due to high paleontological sensitivity of the underlying geologic unit and method of construction. Preparation of a Paleontological Mitigation Plan during the project design phase would mitigate any potentially negative effects that could result from construction of the proposed project (see mitigation measure PALEO-1, below). Standard Specification 14-7.03 would be followed in the event that fossils are unearthed during construction. This Standard Specification provides protocols to follow for the evaluation and treatment of unanticipated discoveries.

Avoidance, Minimization, and Mitigation Measures

Mitigation Measure

PALEO-1. Caltrans shall retain a Principal Paleontologist that meets Caltrans qualifications to prepare or oversee preparation of a Paleontological Mitigation Plan during the project Plans, Specifications, and Estimates phase once more detailed project plans are available. Elements of the Paleontological Mitigation Plan shall conform to Caltrans guidelines (Standard Environmental Reference, Volume 1, Chapter 8). Paleontological Monitoring during construction may be required as a component of the Paleontological Mitigation Plan.

2.1.8 Greenhouse Gas Emissions

Considering the information in the Greenhouse Gas Technical Memo dated July 3, 2024, and the Climate Change Technical Report dated July 5, 2024, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact

Affected Environment

The Transportation Agency for Monterey County serves as Monterey County's Regional Transportation Planning Agency. The Transportation Agency for Monterey County is responsible for developing a Regional Transportation Plan for the county that serves as a basis for the allocation of state and federal transportation funds to transportation projects within the county over a long-range timeframe. The Transportation Agency for Monterey County is one of three regional transportation planning agencies within the larger Metropolitan Planning Organization area of the Association of Monterey Bay Area Governments. The Association of Monterey Bay Area Governments is responsible for developing the 2040 Metropolitan Transportation Plan/ Sustainable Communities Strategy, which aims to maintain and improve the transportation system to meet the diverse needs of the region through 2040.

Environmental Consequences

The purpose of the project is to improve roadway assets in poor condition. The project would not increase the vehicle capacity of the roadway. This type of project is not expected to alter operational greenhouse gas emissions. Because the project would not increase the number of travel lanes on U.S. 101, no increase in vehicle miles traveled would occur as a result of project implementation. Some greenhouse gas emissions would be generated during the construction period.

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

While construction greenhouse gas emissions are produced for only a short time, they have long-term effects in the atmosphere, so cannot be considered "temporary" in the same way as criteria pollutants that subside after construction is completed.

In general, the use of long-life pavement, improved traffic management plans, and changes in materials, can also help offset emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

Construction Climate Change emissions were estimated using the CAL-CET modeling tool using default settings for a Bridge Construction and Preservation project. The estimated average carbon dioxide emissions total is 597 metric tons per year and 389 metric tons per year for Alternative 1 and Alternative 2, respectively. Also, the estimated average carbon dioxide equivalent emissions total for each alternative is about 1,047 metric tons and 951 metric tons generated over the respective construction periods for Alternative 1 and Alternative 2, respectively. The carbon dioxide equivalent is calculated by combining estimates of carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons emissions. Note that these estimates are based on assumptions made during the environmental planning phase of the project and are considered a "ballpark" of energy usage.

All construction contracts include Caltrans Standard Specifications related to air quality. Section 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.

Another Standard Specification that shall be complied with during construction of the project and will reduce greenhouse gas emissions during construction is Section 14-10 Solid Waste Disposal and Recycling. Recycling greater quantities of construction waste will help offset greenhouse gas emissions. Furthermore, Standard Specification Section 12, Temporary Traffic Control, outlines the standards for properly implementing traffic controls during construction. Standard Specification 21-2.02K, Compost, will guide the inclusion of compost or mulch in the landscape plan where it is appropriate. Landscaping components, such as mulch and compost, improve carbon sequestration rates in soils and reduce organic waste.

While the project will result in greenhouse gas emissions during construction, the project would not result in an increase in operational greenhouse gas emissions. Operational greenhouse gas emissions would not result from the

project because the project is not capacity-increasing. The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction greenhouse gas reduction measures, the project's construction-related greenhouse gas emissions would not be notable. Construction greenhouse gas emissions are those produced by construction equipment and construction-related activities. Construction emissions are independent of any operational emissions produced by vehicles traveling through the project limits after construction is completed.

Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. With the implementation of construction greenhouse gas reduction measures, the project's greenhouse gas emissions would be less than significant.

Avoidance and Minimization Measures

To minimize the project's greenhouse gas emissions during construction, the following measures will be implemented:

GHG-1: Where feasible, schedule truck trips outside of peak morning and evening commute hours. Traffic operations shall specify this in the lane closure charts.

GHG-2: Where feasible, use alternative fuels such as renewable diesel for construction equipment. If use of alternative fuels is not possible, substitute gasoline-powered equipment for diesel-powered equipment. Comply with Section 3-517- Equipment, of the Construction Manual.

GHG-3: Where feasible, use solar-powered construction equipment.

GHG-4: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction. This information will be shared using a handout. The information in the handout should include, but is not limited to, the following:

- For improved fuel efficiency from construction equipment, maintain equipment in proper tune and working condition, use right sized equipment for the job, and use equipment with new technologies when feasible.
- Limit idling to 5 minutes for delivery and dump trucks and other dieselpowered equipment when not used in active operations.
- Reduce construction waste. For example, reuse or recycle construction and demolition waste. Maximize use of recycled materials in the project construction to the extent feasible, including but not limited to stockpiling pavement grindings for future use, salvaging rebar from demolished

- concrete, and processing waste to create usable fill (i.e., crushing concrete for aggregate bases). Also see Standard Specifications Section 14-10-Solid Waste Disposal and Recycling.
- Use on-road heavy-duty trucks that meet the California Air Resources Board's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation. See Standard Specifications Section 7-1.02C-Emissions Reduction and comply with Construction Manual Section 7-1.04A (1)- Air Quality.
- GHG-5: Reduce the need for transport of earthen materials by balancing cut and fill quantities. See Standard Specifications Section 19-2.03B-Surplus Material.
- GHG-6: If feasible, use the accelerated bridge construction method. (Reduces construction windows, uses more precast elements that in turn reduce need for additional falsework, forms, bracing, etc.)
- GHG-7: Salvage rebar from demolished concrete, and process waste to create usable fill.
- GHG-8: Maximize use of recycled materials in the project construction to the extent feasible.
- GHG-9: Recycle existing project features onsite, where feasible.
- GHG-10: Reduce construction waste. For example, reuse or recycle construction and demolition waste.
- GHG-11: Conserve water during construction, and prioritize the use of recycled water for construction needs. See Standard Specifications Section 10-4-Water Usage.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment that was prepared for hazardous waste on June 13, 2024, and the Geologic Hazards Report that was completed on June 5, 2024, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
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

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less Than Significant Impact
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
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Less Than Significant Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less Than Significant Impact

Affected Environment

The project lies on U.S. 101 near the town of Bradley in Monterey County. U.S. 101 serves as a major arterial, evacuation route, and route used by emergency responders.

The project is split between a high and low fire hazard severity zone in a State Responsibility Area. A very small portion of the project area (southeast of the town of Bradley and southeast of the highway itself) is within a very high fire hazard severity zone in a State Responsibility Area, according to the California Department of Forestry and Fire Protection's (CalFire's) Fire Hazard Severity Zone Viewer, effective April 1, 2024. However, portions of

the project limits fall within the county's designated Wildland Urban Interface Fire Area.

At the closest point, the project is located less than 1,000 feet from Bradley Elementary School.

To provide information for the hazardous waste study, known as the Initial Site Assessment, the project description and hazardous waste databases were reviewed. There are hazardous waste sites and businesses commonly associated with hazardous waste generation in the project vicinity, but none are likely to have an impact due to project activities. Following is a discussion regarding typical hazardous materials and wastes that are routinely encountered during highway construction projects.

Hazardous Waste Sites

A review of environmental records and agency databases pursuant to Government Code Section 65962.5 was performed.

The GeoTracker database identified one active contaminant cleanup site within 1,000 feet of the project limits, and no closed sites. The site is located within Camp Roberts and is associated with Per-and Polyfluoroalkyl Substances in an aquifer used for drinking water and other groundwater not used for drinking water. Groundwater flows west toward the Salinas and Nacimiento Rivers. The Army National Guard performed an Initial Site Assessment in 2020 that is currently being reviewed by the Central Coast Regional Water Quality Control Board.

In 2017, groundwater was analyzed for Per-and Polyfluoroalkyl Substances from various camp facilities and, while Perfluorotetradecanoic acid was found in all samples, no Perfluoroctanoic acid or Per-and Polyfluoroalkyl Substances were found. This was part of a nationwide federal investigation on the impacts of human health at Army National Guard facilities that used Per-and Polyfluoroalkyl Substances in operations. The current investigated area is not the result of a specific spill or plume. Previous investigations into shallow soil reported no signification detections of contamination. The Camp Roberts Per-and Polyfluoroalkyl Substances Investigation is located about 600 feet west of the project site. The planned project improvements in the vicinity of the site indicate that the project is not likely to encounter contamination.

Caltrans Standard Special Provision 14-11.02, which addresses unanticipated discoveries of contaminated soils and groundwater, will be included in the project bid package so that the District 5 emergency on-call contract can be used in the event that residual contamination is encountered.

Aerially Deposited Lead

The historic use of leaded gasoline in automobiles has resulted in soils along roadways throughout California containing elevated concentrations of lead.

Soil with lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016 Aerially Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control. The Aerially Deposited Lead Agreement outlines which soils can be safely reused within the project limits and which soils must be exported and disposed of as hazardous waste.

Aerially deposited lead may be present in regulated quantities within the project limits. There have not been aerially deposited lead studies within the project limits, aside from one conducted on the San Antonio River Bridges in 2001. Though aerially deposited lead was not found in regulated quantities, the study did not cover a significant portion of the project limits.

During the project design phase, the hazardous waste specialist will work with the project design team to determine the extent to which such soils would be disturbed during construction, and whether soil would be exported from the project or reused onsite. A site-specific aerially deposited lead assessment that includes soil sampling and analysis with a handheld X-Ray Fluorescence machine may be performed by Caltrans District 5 Environmental Engineering staff to confirm that soils within the project limits are unregulated for aerially deposited lead. If soils with elevated concentrations of lead are documented by X-Ray Fluorescence analysis, then a task order to have a consultant perform laboratory analyses of soil samples will be required.

If soil is excavated and disposed of outside of the highway right-of-way, then a task order must be written to have site-specific soil sampling performed. This must be done to document the site-specific lead concentrations so this material can be properly handled, reused, or disposed of. The aerially deposited lead study would be completed during the project design phase once the limits of excavation are known and would take four to six months to complete. The appropriate Caltrans Standard Special Provisions for aerially deposited lead soil management will be determined during the project design phase.

Yellow Thermoplastic or Traffic Stripe

Yellow traffic paint purchased by Caltrans prior to 1997 contained high concentrations of lead. Application of yellow thermoplastic material containing high concentrations of lead continued until at least 2004 to 2006. The lead concentrations in the older yellow paint and yellow thermoplastic are high enough to make these materials hazardous wastes when they are removed.

Older hazardous yellow traffic stripe within the project limits was removed under a different project in 2018. The residue from removal of the existing traffic paint and thermoplastic within the project limits will be a non-hazardous waste. The appropriate Standard Special Provisions for removal of traffic stripe and pavement markings will be determined during the project design phase once the removal method is known (e.g., separate removal of the paint/stripe, or cold planning or grinding).

In addition, a Lead Compliance Plan will need to be developed and implemented by the construction contractor and should be included as a bid item.

Naturally Occurring Asbestos

Naturally occurring asbestos refers to silicate minerals that occur as asbestiform fibers and are found as a natural component of soils or rocks. Disturbance of rocks containing naturally occurring asbestos can release asbestos fibers into the air, which pose a human health risk when inhaled. In District 5, naturally occurring asbestos can be found within serpentine and ultramafic rocks of the Coast Ranges, and within fault zones.

A review of geologic mapping and mineral hazard maps indicates that naturally occurring asbestos is not present within the project limits.

Lead-Containing Paint and Asbestos-Containing Materials
Bridges and structures may have materials with lead-containing paint and asbestos.

A site investigation was conducted on the San Antonio River Bridges in 2002, and found no lead-containing paint. Asbestos-containing materials were detected in barrier railing shims used on the bridges.

A site-specific lead-containing paint/asbestos-containing materials survey and assessment will be completed during the Plans, Specifications, and Estimates phase to determine proper handling and disposal methods.

Treated Wood Waste

Caltrans guardrail supports and signposts often consist of wood that has been treated with chemical preservatives to prevent rot or insect attack. Treated wood waste is considered to be a California hazardous waste but is subject to alternative management standards under Health and Safety Code Section 25230 that allow for simplified management and transport of treated wood waste, and disposal at non-hazardous waste landfills that meet certain requirements. The North Bradley Undercrossing Structure has not been tested for lead-containing paint or asbestos-containing material.

Treated wood waste may be generated by the project via guardrail and signpost replacement. If treated wood waste will be disposed of as part of the project, Standard Special Provision 14-11.14 will be included in the construction contract for proper management and disposal of treated wood waste for both the San Antonio River Bridges and the North Bradley Undercrossing Structure.

Electrical Waste

Replacement of Transportation Management System elements may generate hazardous waste. Electrical equipment includes mercury-containing switches, sensors, timers, ballasts with polychlorinated biphenyl, and other electrical

components. All electrical equipment requiring disposal will be packaged and transported to an appropriate permitted disposal facility. Caltrans Standard Specification 14-11.15 contains the requirements for management of the electrical equipment and will be complied with by the contractor.

Environmental Consequences

The completed project would improve highway reliability and would not interfere with emergency response or emergency evacuation plans. During project construction, any traffic controls necessary would be implemented in accordance with the traffic control plan to not significantly impede fire or other emergency evacuation or emergency response traffic. Emergency responders would be made aware of any traffic disruptions, delays, or detours in advance. The project would not increase the risk of loss, injury, or death due to wildland fires.

Though there is one school within 0.25 mile of the project limits, all hazardous waste would be handled according to appropriate standard specifications. The release of hazardous materials is not anticipated.

Routine hazardous waste issues may be encountered during construction, but would be appropriately handled, treated, and disposed of (if required) with implementation of Caltrans Standard Specifications. During the project design phase, an aerially deposited lead study may be completed, and the hazardous waste specialist will work with the project design team to determine the appropriate Standard Special Provisions to include in the construction contract. With implementation of appropriate Standard Special Provisions, adverse effects to human health or the environment are not anticipated.

Avoidance and Minimization Measures

- HAZ-1. Caltrans Standard Special Provision 14-11.02, which addresses discovery of unanticipated discoveries of contaminated soils and groundwater, should be included in the project bid package so that the District 5 emergency on-call contract can be used in the unlikely event that contamination is encountered.
- HAZ-2. The appropriate Caltrans Standard Special Provisions for aerially deposited lead soil management will be determined during the project design phase.
- HAZ-3. A Lead Compliance Plan will need to be developed and implemented by the construction contractor and should be included as a bid item.
- HAZ-4. A site-specific lead-containing paint/asbestos-containing materials survey and assessment for the San Antonio River Bridges and the North Bradley Undercrossing Structure will be completed during the Plans, Specifications, and Estimates phase.

HAZ-5. Standard Special Provision 14-11.14 will be included in the construction contract for proper management and disposal of treated wood waste.

2.1.10 Hydrology and Water Quality

Considering the information in the Water Quality Assessment Report dated June 21, 2024, the Location Hydraulic Study dated November 14, 2022, and the updated Floodplain Evaluation dated June 20, 2024, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	Less Than Significant Impact
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
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	Less Than Significant Impact
(i) result in substantial erosion or siltation onsite or offsite;	
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	Less Than Significant Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less Than Significant Impact
(iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Less Than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less Than Significant Impact

Affected Environment

Groundwater is the principal source of water in Monterey County, accounting for more than 80 percent of the total water use. There are six groundwater basins within Monterey County: Pajaro Valley, Prunedale, Salinas Valley, Marina-Fort Ord, Carmel, and El Toro. Most of these areas include subbasins that help further define and localize water issues.

Wells that are used to obtain groundwater are operated by many different entities (cities, special assessment districts, investor-owned utilities, mutual water companies and individual property owners), making groundwater resource management difficult. Increases in groundwater pumping practices have resulted in localized over drafting and have caused saltwater intrusion in the Pajaro and Salinas River groundwater basins.

Water is necessary for domestic, industrial, agricultural, and recreational uses, as well as for sustaining fish and wildlife habitats. Five aquatic areas within Monterey County have been designated by the state as areas of special biological significance and therefore require special protection (Pacific Grove Marine Gardens Fish Refuge and Hopkins Marine Life Refuge, Point Lobos Ecological Preserve, Carmel Bay, Julia Pfeiffer Burns Underwater Park, and the ocean area surrounding the mouth of Salmon Creek). However, the project is not located within the limits of areas of special biological significance.

Water quality problems are mostly related to waste discharges from point and nonpoint sources and geologic limitations. Typical point sources are domestic and industrial wastewater sites. Non-point sources are more difficult to address and may include animal husbandry operations, natural mineralization, automobile emissions, and urban runoff. Three principal problems affect the County's groundwater basins (saltwater intrusion, nitrate pollution, natural reactions). Suspected sources of nitrate pollution include wastewater discharges, agriculture return water, and onsite wastewater treatment system overloading.

This project sits within the Salinas Hydrologic Unit, the Paso Robles Hydrologic Area, and the Atascadero Hydrologic Sub-Area. The receiving water bodies for this project are Salinas River, Nacimiento River, Hames Creek, and the San Antonio River.

The receiving water bodies have several beneficial uses designated in the Regional Water Quality Control Board's Basin Plan (Basin Plan). These beneficial uses are listed in Table 2.13.

Table 2.13. Beneficial Uses of the Receiving Water Bodies for the Project

Receiving Water	Beneficial Uses
Salinas River (middle, near Gonzales Road crossing to confluence with Nacimiento River)	Agricultural Supply, Cold Fresh Water Habitat, Commercial and Sport Fishing, Groundwater Recharge, Industrial Service Supply, Fish Migration, Municipal and Domestic Supply, Industrial Process Supply, Reservation of Rare and Endangered Species, Water Contact Recreation, Non-contact Water Recreation, Fish Spawning, Warm Fresh Water Habitat, Wildlife Habitat
Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)	Agricultural Supply, Cold Fresh Water Habitat, Commercial and Sport Fishing, Groundwater Recharge, Fish Migration, Municipal and Domestic Supply, Industrial Process Supply, Reservation of Rare and Endangered Species, Water Contact Recreation, Noncontact Water Recreation, Fish Spawning, Warm Fresh Water Habitat, Wildlife Habitat
San Antonio River (below San Antonio Reservoir)	Agricultural Supply, Commercial and Sport Fishing, Groundwater Recharge, Industrial Service Supply, Fish Migration, Municipal and Domestic Supply, Reservation of Rare and Endangered Species, Water Contact Recreation, Non-contact Water Recreation, Fish Spawning, Warm Fresh Water Habitat, Wildlife Habitat
Nacimiento River (below Nacimiento Reservoir)	Agricultural Supply, Cold Fresh Water Habitat, Commercial and Sport Fishing, Groundwater Recharge, Industrial Service Supply, Fish Migration, Municipal and Domestic Supply, Reservation of Rare and Endangered Species, Water Contact Recreation, Noncontact Water Recreation, Fish Spawning, Warm Fresh Water Habitat, Wildlife Habitat

The Basin Plan does not list any beneficial uses for Hames Creek. Surface water bodies without any assigned beneficial uses listed in the Basin Plan have the following designations: municipal and domestic water supply [and] protection of both recreation and aquatic life. There are no drinking water and/or water recharge facilities within the project limits.

Most of the receiving water bodies for this project are 2020/2022 303(d) listed as impaired. Table 2.14 lists the project's receiving water bodies and the associated 303(d) pollutant. Caltrans is not identified as a responsible party for any Total Maximum Daily Load pollutant within the project limits.

Table 2.14. Pollutants by Water Body

Water Body	303(d) Pollutant
Salinas River (middle, near Gonzales Road crossing to confluence with Nacimiento River)	Benthic Community Effects, pH , Temperature, Toxicity, Turbidity
Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)	Benthic Community Effects, Chloride, Dissolved Oxygen, pH, Sodium, Toxicity
San Antonio River (below San Antonio Reservoir)	Escherichia coli (E. coli), pH
Nacimiento River (below Nacimiento Reservoir)	рН

Per the project's Structure Preliminary Geotechnical Report, the nearest water wells found in the California Department of Water Resources database are about 5 miles north of the site. Groundwater elevations in the vicinity of the bridge site are anticipated to be that of surface flow in the adjacent Salinas River at an elevation of about 490 feet, corresponding to approximately 70 feet below the ground surface. According to the final Seismic Design Recommendations and Lateral Soil Springs report prepared for the prior retrofit of San Antonio River Bridges, groundwater was encountered around 33 to 34 feet below ground near the two abutments and about 6 to 8 feet below ground within the riverbed and the piers.

According to the project's Location Hydraulic Study, the proposed work would be within Federal Emergency Management Agency (FEMA) regulated floodplains. And based on the project's Natural Environment Study, the following stream/riparian habitats are present in the Biological Study Area: willow woodland and thicket, recovering woody riparian, cottonwood riparian forest, stream, and emergent wetland. The project will require a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers, a Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife. See Section 2.1.4 Biology for details on impacts to jurisdictional areas.

Environmental Consequences

Temporary Impacts to Storm Water

Generally, as the Disturbed Soil Area increases, the potential for temporary water quality impacts also increases. The total proposed Disturbed Soil Area across the project area is 16.86 acres (out of the total project area of 258 acres). A National Pollutant Discharge Elimination System Construction General Permit will be completed for the project. The project is anticipated to minimally increase impervious surface area, by about 0.1 acre (4,356 square feet).

The temporary effects that disturbing 16.86 acres of soil would have on the receiving waters can be minimized by implementing temporary best

management practices proposed in the Water Quality Assessment Report, and listed in the Avoidance and Minimization Measures section below. The Salinas River is identified as an impaired water body on the 303(d) list for turbidity. However, no source of turbidity has been identified.

A preliminary project risk level assessment has determined this project to be a risk level 2 out of 3, in regard to temporary impacts to storm water. The risk level was determined using the combined project sediment risk and receiving water risk. The project sediment risk was calculated to be medium (59.9 tons per acre). The receiving water risk is classified as high due to Salinas River having beneficial uses for Cold Fresh Water Habitat, Fish Spawning, and Fish Migration. Monitoring and reporting requirements increase as the risk level increases from 1 to 3.

Temporary Impacts to Water Resources

Temporary impacts to aquatic resources will take place as a result of construction. Construction of new bridges will also require clear water diversion from the creek. Further information on temporary impacts to water resources can be found in Section 2.1.4 Biological Resources.

Temporary Impacts to Groundwater

Based on preliminary studies performed for this project and on prior studies completed for the prior San Antonio River Bridge Retrofit Project, temporary impacts to groundwater are not anticipated. This will be confirmed during the design phase, once the geotechnical drilling required for further studies is completed.

Permanent Impacts to Storm Water

The project will produce 4,356 square feet of net impervious surface. Since that total is less than 10,000 square feet, no permanent best management practices are required to be installed. However, increase in impervious surface will increase the amount of storm water runoff, which in turn has the potential to affect receiving water quality. The nature of these impacts depends on the uses and flow rate or volume of the receiving water, rainfall characteristics, and highway characteristics. Heavy metals associated with vehicle tire and brake wear, oil and grease, and exhaust emissions are the primary pollutants associated with transportation corridors. There are no existing treatment best management practices along U.S. 101 within the project limits to treat roadway runoff; therefore, the water quality of the receiving water bodies would still be affected by highway runoff as a result of this project. Typically, highway projects increase impervious areas and therefore potentially increase the volume and velocity of storm water flow to downstream receiving water bodies. However, with effective combinations of temporary and permanent erosion and sediment controls, these water quality affects are anticipated to be minimal.

Permanent Impacts to Water Resources

Permanent impacts to other waters/streambed are not anticipated. Permanent impacts to riparian and streambank habitat will be composed of the construction of new piers in locations that are not currently hardscapes. However, due to the reduced number of support structures, the project will result in a net reduction of structures within the streambed and riparian/streambank corridor. Reestablishment of streambed, riparian and streambank habitat where existing supports are removed will offset the new permanent structure. Further information on impacts to water resources can be found in Section 2.1.4 Biological Resources.

Floodplains

According to the project's Location Hydraulic Study, the proposed work will be within Federal Emergency Management Agency (FEMA) regulated floodplains, and no significant floodplain encroachments have been identified with the proposed project. The project would not significantly impact the 100-year floodplains.

Avoidance and Minimization Measures

See Section 2.1.4 Biological Resources for avoidance, minimization, and mitigation measures for jurisdictional areas.

According to the project's Water Quality Assessment Report, during construction, effective combinations of temporary and permanent erosion and sediment controls will be used. Storm water management for the site will be coordinated through the contractor with Caltrans construction personnel to effectively manage erosion from the Disturbed Soil Areas by implementing a Storm Water Pollution Prevention Plan. Selected Best Management Practices that will be implemented are listed below. These Best Management Practices are subject to further refinement in the Plans, Specifications, and Estimates phase. Most of these Best Management Practices will be included in the Storm Water Pollution Prevention Plan for the project.

Temporary Soil Stabilization

HYDRO-1. Minimize active disturbed soil areas during the rainy season by using scheduling techniques.

HYDRO-2. Preserve existing vegetation to the maximum extent feasible.

HYDRO-3. Implement temporary protective cover/erosion control on all non-active disturbed soil areas and soil stockpiles.

HYDRO-4. Control erosive forces of storm water runoff with effective storm flow management, such as temporary concentrated flow conveyance devices, earthen dikes, drainage swales, lined ditches, outlet protection/velocity dissipation devices, and slope drains; as determined feasible.

Temporary Sediment Controls

HYDRO-5. Implement linear sediment controls such as fiber rolls, check dams, or gravel bag berms on all active and non-active disturbed soil areas during the rainy season.

HYDRO-6. To further help prevent sediment discharge, stabilize construction site entrances, implement temporary drainage inlet protection, and implement street sweeping and vacuuming.

HYDRO-7. Implement appropriate wind erosion controls year-round.

Non-Storm Water Management

The appropriate non-storm water Best Management Practices will be implemented year-round as follows:

HYDRO-8. Water conservation practices shall be implemented on all construction sites and wherever water is used.

HYDRO-9. Paving and grinding procedures shall be implemented where paving, surfacing, resurfacing, grinding, or saw cutting may pollute storm water runoff or discharge to the storm drain system or watercourses.

HYDRO-10. Follow appropriate procedures and practices designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents to the Resident Engineer.

HYDRO-11. Stockpiling materials, storing equipment and liquid waste containers, washing vehicles or equipment, and fueling and maintaining vehicles and equipment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and inlets if within the floodplain. The activities must be performed at least 50 feet from the aforementioned areas if outside of the floodplain.

HYDRO-12. Pile driving operations will be considered part of the construction activities.

HYDRO-13. Concrete curing will be used in the construction of structures such as bridges and abutments. Concrete curing includes the use of both chemical and water methods. Proper procedures will minimize pollution of runoff during concrete curing.

HYDRO-14. Since the project involves structure demolition/removal over the San Antonio River, proper procedures will be implemented to minimize pollution during these activities.

HYDRO-15. The following construction site best management practices shall be bid items for this project to ensure they are implemented during construction:

- Job Site Management
- Prepare Stormwater Pollution Prevention Program
- Storm Water Sampling and Analysis Day
- Stormwater Annual Report
- Move In/Move Out (Temporary Erosion Control)
- Temporary Hydraulic Mulch (Bonded Fiber Matrix)
- Temporary Check Dam
- Temporary Drainage Inlet Protection
- Temporary Fiber Roll
- Temporary Large Sediment Barrier
- Temporary Construction Entrance
- Street Sweeping
- Temporary Concrete Washout
- Temporary Fence (Environmentally Sensitive Area-type fence)

Supplemental Items

HYDRO-16. Concurrence from Construction regarding the temporary Construction Site best management practices implementation strategy and associated quantities will be obtained during the Plans, Specifications, and Estimates phase.

Maintenance Best Management Practices

HYDRO-17. Continue coordination with Maintenance regarding the incorporation of best management practices. Finalize plan for best management practices prior to construction. Maintenance best management practices may include maintenance vehicle pullouts, access gates and roads, and maintenance worker safety features.

2.1.11 Land Use and Planning

Project activities would occur mostly on existing Caltrans right-of-way on or adjacent to U.S. 101. For some of the culvert-related work and the bridge replacements, the project would require temporary construction easements. However, use of construction easements would not alter existing land use or planning in the region. Project activities would not divide any existing communities and is not anticipated to conflict with any existing land use plan, policy, or regulations in the region. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	No Impact
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

2.1.12 Mineral Resources

Project activities would involve work on highway features that are located within or immediately adjacent to the Caltrans right-of-way along U.S. 101. The project would not include the removal or extraction of mineral resources or preclude the extraction of mineral resources in the area. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact
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

2.1.13 Noise

Considering the information in the Noise Technical Memo dated July 3, 2024, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
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
b) Generation of excessive groundborne vibration or groundborne noise levels?	Less Than Significant Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

Affected Environment

The overall project setting consists of rolling terrain and mostly rural neighborhood with two rest areas in the project vicinity. U.S. 101 through the project limits is two lanes in each direction. The closest sensitive receptors (an elementary school, library, and homes) are over 1,000 feet away. However, people access the project site to use the San Antonio Unit of the Big Sandy Wildlife Area for recreation. Wildlife, including protected species, also inhabit the project area. Part of the project site is also within the Camp Roberts Military Base, where military exercises are sometimes carried out.

Regulatory Setting

CEQA considers there to be a significant noise impact when noise levels increase substantially compared to the ambient noise levels for adjoining areas. Caltrans and the Federal Highway Administration require consideration of noise abatement when predicted noise levels of Type I projects substantially exceed the existing noise levels, or when they approach or exceed 67 decibels equivalent continuous sound level in residential areas. A Type II project involves construction of noise abatement on an existing highway with no changes to highway capacity or alignment. A Type III project is a project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis. Since no capacity will be added to the highway, and because the highway will not be realigned, this is considered a Type III project.

Environmental Consequences

Permanent (Long-term) Impacts

Since no capacity will be added to the highway, and because the highway will not be realigned, this is considered a Type III project. Local noise levels will be the same after completion of the project as they were before. Long-term noise abatement measures will not be recommended with this project.

Temporary (Construction) Impacts

It is inevitable that local noise levels in the vicinity of construction will experience a short-term increase due to construction activities. The amount of construction noise will vary with the models and types of equipment used by the contractor. Caltrans policy states that normal construction equipment would not emit noise levels greater than 86 decibels at 50 feet from the source.

It is anticipated that some construction activities will occur at night, including cold planing and overlay, K-rail placement, placing girders and falsework, and placing rumble strips. However, the project is not directly adjacent to any homes or other sensitive receptors (the closest sensitive receptor is over 1,000 feet away). In addition, Caltrans Standard Specifications and several avoidance and minimization measures will be implemented to minimize construction noise.

To minimize impacts on residents' normal nighttime sleep activities, it is recommended that, whenever possible, construction work be done during the day. If nighttime construction is necessary, the noisiest construction activities should be done as early in the evening as possible. Caltrans Standard Specifications Section 14-8.02 requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 A-weighted decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

Adverse noise impacts from construction are not anticipated because construction would be temporary and intermittent, conducted in accordance with Caltrans Standard Specifications, and because local noise levels are significantly influenced by local traffic noise.

Avoidance and Minimization Measures

Include the following general measures in the Resident Engineer's binder and implement as appropriate to further minimize temporary construction-noise impacts.

NOI-1. Each internal combustion engine, used for any purpose on the job, or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the job site without an appropriate muffler.

- NOI-2. Notify the public in advance of the construction schedule when construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice shall be given two weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The District 5 Public Information Office posts notice of the proposed construction and potential community impacts after receiving notice from the Resident Engineer.
- NOI-3. Shield especially loud pieces of stationary construction equipment.
- NOI-4. Locate portable generators, air compressors, etc. away from sensitive noise receptors.
- NOI-5. Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.
- NOI-6. Place heavily trafficked areas such as the maintenance yard, equipment, tool, and other construction-oriented operations in locations that would be the least disruptive to surrounding sensitive noise receptors.
- NOI-7. Use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators intact and operational. Internal combustion engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.
- NOI-8. Consult District noise staff if complaints are received during the construction process.

2.1.14 Population and Housing

The project does not propose to alter the existing capacity or alignment of U.S. 101. No right-of-way acquisitions are required. Therefore, the project is not anticipated to induce growth or displace people or housing units in the region. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Population and Housing
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

Question—Would the project:	CEQA Significance Determinations for Population and Housing
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

2.1.15 Public Services

Project activities would be limited to the existing alignment of U.S. 101. The project would not impact any planned or existing governmental facilities. The project would maintain public access on U.S. 101 during project construction, and access to any existing governmental facilities in proximity of project work locations would be maintained. Considering this information, the following significance determinations have been made:

Question:	CEQA Significance Determinations for Public Services
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection?	No Impact
Police protection?	No Impact
Schools?	No Impact
Parks?	No Impact
Other public facilities?	No Impact

2.1.16 Recreation

The project would occur within a small portion of the San Antonio Unit of the Big Sandy Wildlife Area. However, the project would not include recreational facilities in the scope, or require the construction or expansion of recreational facilities. The project would not increase the use of parks or recreational facilities. See Appendix A for further discussion of the Big Sandy Wildlife Area

and proposed *de minimis* 4(f) determination. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact
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

2.1.17 Transportation

The project would not alter the existing alignment or capacity of U.S. 101 and is not anticipated to conflict with any existing or planned transportation-related programs or facilities in the region. The project would not increase existing vehicle miles traveled on U.S. 101. Emergency access on U.S. 101 would be maintained during project construction and would not be altered once the project is completed. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Transportation
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	No Impact
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
d) Result in inadequate emergency access?	Less Than Significant Impact

Affected Environment

The project runs about 7.8 miles along U.S. 101 in Monterey County. This portion of U.S. 101 is a four-lane major highway through the region, with a posted speed limit of 65 miles per hour throughout most of the project limits. This is a major route for the traveling public and agricultural vehicles.

Environmental Consequences

The completed project would improve highway reliability by maintaining the road and bridges in good condition. Traffic delays would occur during construction due to temporary closures, ramp closure, and/or one-way traffic control. However, traffic stops and detours would be executed in accordance with the traffic control plan. Emergency services would be notified of potential disruptions, delays, or detours in advance to minimize impacts to emergency access.

The project would implement standard Caltrans measures, including the preparation of a Transportation Management Plan during construction. A Transportation Management Plan would include measures for traffic delays, lane closures, and detours. Caltrans' Resident Engineer would coordinate through the construction process to reduce any delay in response times as much as possible. No additional avoidance, minimization, and/or mitigation measures are proposed.

2.1.18 Tribal Cultural Resources

Considering the information in the 2024 Historic Property Survey Report with attached Archaeological Survey, Extended Phase I, and Phase II Evaluation Report, and the 2025 Historic Property Survey with attached Supplemental Archaeological Survey Report, the following significance determinations have been made:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
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	Less Than Significant Impact

Question:	CEQA Significance Determinations for Tribal Cultural Resources
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 shall consider the significance of the resource to a California Native American tribe.	Less Than Significant Impact

Affected Environment

This section of the environmental document, as compared to Section 2.1.5 Cultural Resources, is meant to focus exclusively on impacts to California Native American Tribes. In this instance, the cultural resources that the project may affect are exclusively California Native American Tribe resources.

Environmental Consequences

Caltrans was unable to evaluate a previously identified site in its entirety due to size of the resource, restricted access, and low potential project impacts. As a result of some of the site remaining untested, Caltrans assumed the resource is eligible for listing on the National Register, under Criterion D, for the purposes of this project only.

Caltrans will consult with the State Historic Preservation Officer for a determination of project effects. A Finding of No Adverse Effect–Non-Standard Conditions, Environmentally Sensitive Area is anticipated.

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be stopped in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological surveys will be needed if project limits are extended beyond the present survey limits.

In addition, as specified in the Avoidance and Minimization measures section of Section 2.1.5, an Environmentally Sensitive Area Action Plan will be prepared prior to project construction and all ground disturbance during construction will be monitored by archaeological and tribal monitors. The portion of the site beyond the Area of Potential Effect will be protected by the establishment of an Environmentally Sensitive Area. Project impacts will not adversely affect the site because they are proposed within the non-contributing portion of the site. A less than significant impact will result. See Section 2.1.5 for applicable avoidance and minimization measures.

2.1.19 Utilities and Service Systems

Based on an evaluation of the utilities and service systems within the project area, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems	
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less Than Significant Impact	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact	
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	
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?	Less Than Significant Impact	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact	

Affected Environment

The project would rehabilitate the roadway surface, replace two bridges, and repair or replace other satellite assets.

Environmental Consequences

There are existing utilities within the work area that will require Positive Location Determination during the upcoming final project design stage. Avoidance and utility encroachment exceptions would be considered before relocation is proposed. At this stage, no utility conflicts or relocations are anticipated.

Neither project construction nor operation would significantly increase demand for water or wastewater supply or demand. The project also would not alter the functions or demand for electrical, natural gas, or telecommunications facilities in the region.

The project is not anticipated to generate excessive amounts of solid waste that would overwhelm capacities of existing waste management facilities. Any recyclable waste materials generated from project construction would be recycled. Waste materials generated by project construction would be collected and disposed of properly to meet all state and federal requirements.

The project would not generate solid waste during operation. During construction, some solid waste would be generated, but not in excess of infrastructure capacity or state or local standards. To the extent safe and feasible, construction materials would be reused or recycled. In addition, waste materials generated by project construction would be collected and disposed of properly. Impacts to utilities and service systems would be less than significant.

2.1.20 Wildfire

The project limits were reviewed using the California Department of Forestry and Fire Protection's (CalFire's) Fire Hazard Severity Zone Viewer (effective April 1, 2024). Considering this information, the following significance determinations have been made:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than Significant Impact
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?	No Impact
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?	No Impact

Question—Would the project:	CEQA Significance Determinations for Wildfire
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

Affected Environment

The project is split between a high and low fire hazard severity zone in a State Responsibility Area. A very small portion of the project area (southeast of the town of Bradley and southeast the highway itself) is within a very high fire hazard severity zone in a State Responsibility Area.

Environmental Consequences

The completed project would improve highway reliability and would not interfere with emergency response or emergency evacuation plans. In addition, the project would not increase the risk of loss, injury, or death due to wildland fires. A traffic control plan would be implemented during construction and emergency responders would be made aware of any traffic disruptions, delays, or detours in advance. Caltrans 2018 Revised Standard Specification 7-1.02M(2) will be implemented and mandates fire prevention procedures during construction, including a fire prevention plan.

2.1.21 Mandatory Findings of Significance

Question:	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

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
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
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

Affected Environment

The project would replace two bridges, replace and rehabilitate culverts, and pave just under 7 miles of U.S. 101 near Bradley. The project will require some off-pavement work. The potential for cumulative impacts to resources has been analyzed and is explained further below. The project also has potential to affect the human environment. The human environment refers to how environmental factors, such as noise levels or water quality, affect human quality of life.

Environmental Consequences

Natural and Historical Resources

Biological Resources

The project may affect several protected habitat areas and plant and animal species. Avoidance, minimization, and mitigation measures would be implemented to reduce impacts to biological resources. Mitigation is required to prevent significant impacts to jurisdictional wetlands, other waters, riparian habitat, and bats. See Section 2.1.4 for more information.

Paleontological Resources

Construction of the North Bradley Undercrossing Bridge has potential to impact paleontological resources. The replacement of the culvert at post mile R7.78 via jack and bore methods and the replacement of the North Bradley Undercrossing have the potential to affect native Paso Robles Formation sediments that host significant fossils.

Preparation of a Paleontological Mitigation Plan prior to construction would identify sensitive locations where monitoring could be required, procedures for collecting fossils, and provisions for the fossils to be curated at an

appropriate repository and catalogued for scientific study in perpetuity. With this mitigation, a less than significant impact would result. See Section 2.1.7, above, for more information.

Cultural Resources

One archaeological site is in the project's Area of Potential Effect. However, based on the proposed project activities and the eligibility of the sites, impacts to cultural resources are expected to be less than significant. Caltrans will consult with the State Historic Preservation Officer for a determination of project effects. A Finding of No Adverse Effect—Non-Standard Conditions, Environmentally Sensitive Area is anticipated. See Section 2.1.5, above, for more information.

Cumulative Impacts

A Cumulative Impact Report has been completed for the project. The Cumulative Impact Report follows the 2005 *Caltrans Cumulative Impact Analysis and Growth Related, Indirect Impact Guidance*. The guidance outlines an eight-step process for evaluating cumulative impacts.

Step one is to identify resources that must be evaluated for cumulative impacts. The project was evaluated for potential cumulative impacts to the following biological resources: jurisdictional wetlands, other waters, and riparian habitat; bats (Townsend's big-eared bat, pallid bat, and other roosting bats); southwestern pond turtle; and South-Central California Coast steelhead. In addition, paleontological resources were evaluated for potential cumulative impacts.

Step two is the identification of appropriate Resource Study Areas for each of the resources identified in the Cumulative Impact Report. A Resource Study Area is the geographic area within which impacts on a resource are analyzed. The boundaries of a Resource Study Area are often broader than the boundaries used for project-specific analysis, such as a Biological Study Area. The Resource Study Area for biological resources for the project is the combined San Antonio River, Nacimiento River, Big Sandy Creek, and Indian Valley-Salinas River Hydrologic Unit Code 10 watersheds. The Resource Study Area is approximately 680,290 acres and includes portions of both Monterey County and San Luis Obispo County. The Resource Study Area for paleontological resources for the project includes all areas of outcrop of the Paso Robles Formation that occur within the combined San Antonio River, Nacimiento River, Big Sandy Creek, and Indian Valley-Salinas River Hydrologic Unit Code 10 watersheds. The Resource Study Area was clipped to this area because it represents areas within the Paso Robles Formation that represent similar sedimentary facies that were deposited in roughly the same geologic time period.

Step three is an evaluation of the resource health and the historic context of the resource, as explained below.

Jurisdictional Waters, Wetlands, and Riparian Habitat

The main land uses within the Resource Study Area are agricultural, military installation, reservoir/water storage and recreational, and rural residential. The existing health of the aquatic resources with the Resource Study Area varies depending on location and land use. A large portion of the Resource Study Area is operated by the military and has strict conservation implementation plans that generally provide species and habitat protections and preserve the open space and natural resources of the area. Other portions of the Resource Study Area have potential risks to aquatic resource health due to agricultural runoff, erosion, recreational use in the reservoirs, and/or poor land use practices. The main threats to jurisdictional aquatic resources within the Resource Study Area stem from land conversion to agriculture, water withdrawal for agriculture and other anthropogenic uses, and water storage.

Historically, the watersheds within the Resource Study Area were expansive and undisturbed, supporting riparian habitat and species health. The San Antonio Dam was constructed in 1967, and the Nacimiento Dam was constructed in 1957. Many of the stream features in the Resource Study Area are highly modified due to upstream dams/reservoirs, agricultural uses, urban use/runoff, water contact recreation, commercial/sport fishing, and introduction of invasive species, which have historically harmed the habitat. Stream features within the Resource Study Area have also undergone a decline in water quality, as identified by the Central Coast Regional Water Board, due to the modifications of the watersheds.

Within the immediate project Biological Study Area, the moderately modified other waters, wetlands, and riparian areas provide low to moderate physical and hydrological functions (flood control, groundwater recharge, and sediment traps). These functions would be improved by the project by replacement of undersized and damaged water conveyance facilities and regrading channels that have been blocked by sediment. The features within the Biological Study Area support low to moderate habitat functions. Some are degraded roadside features with little to no riparian vegetation, while other features resemble a more natural riparian system that could support fish and wildlife habitat. Most of the other waters/streams are highly modified ephemeral drainages. A few streams (including San Antonio River, Nacimiento River, Salinas River, and Hames Creek) support more stable riparian conditions that may provide habitat for aquatic species. All delineated areas within the Biological Study Area display evidence of some combination of a bed, with gravel sorting; bank, with some combination of topographic break; change in particle size distribution; and a transition in vegetation density and hydric tolerance. These features show evidence of flow within the channel.

South-Central California Coast Steelhead

The San Antonio River was one of the three most important spawning and rearing tributaries for Salinas River steelhead. The confluence of the Salinas and San Antonio rivers is approximately 107 miles upstream from the mouth of the Salinas River. Following construction of the San Antonio Dam, the pattern of flow releases from the dam was not predicted to provide perennial flow conditions in the lowermost San Antonio River. Though the availability of steelhead spawning and rearing habitat was limited in the lower San Antonio River even before dam construction, the California Department of Fish and Game (now California Department of Fish and Wildlife) still identified steelhead as inhabitants of the San Antonio River below the reservoir as of 1981. It was assumed that steelhead still entered the lower river from the Salinas River when runoff was sufficient to provide a continuous migration corridor. However, lack of access to historic spawning and rearing habitats in the perennial headwaters greatly limits steelhead use of the San Antonio River. More recently, hydrologic conditions downstream of San Antonio Dam and other habitat conditions do not favor steelhead. National Marine Fisheries Service staff walked the lower San Antonio River in August 2004 and noted riparian vegetation, gravels, and shading that could likely provide suitable spawning and rearing habitat. Nonetheless, surveys of the lower San Antonio River completed after the placement of San Antonio Dam have shown that steelhead use is low. The species is in poor health within the Resource Study Area.

Southwestern Pond Turtle

The historical range of the western pond turtle extends along the Pacific Coast from British Columbia, Canada to the northern part of Baja California, Mexico, primarily west of the Sierra Nevada and Cascade ranges. Recent genetic information has led to a taxonomic split of the western pond turtle into two distinct species. The Resource Study Area is within the range of the southwestern pond turtle. The current range of the southwestern pond turtle is the central Coast Range south from the middle of Monterey Bay to the species' southern range boundary in Baja California.

The species numbers and habitat range have been in decline for several years. The southwestern pond turtle was listed as Federally Proposed Threatened by the U.S. Fish and Wildlife Service in late 2023. The species is also listed as a Species of Special Concern by the California Department of Fish and Wildlife. Threats to the species across its range also occur within the Resource Study Area, and therefore it can be presumed that the species' health is likely declining within the Resource Study Area; however, there is a lack of data and regionally specific population studies.

Townsend's Big-Eared Bat, Pallid Bat, and Other Roosting Bats

Townsend's big-eared bat occurs from southern British Columbia southward, through most of the western United States to central Mexico. Pallid bats occur across much of western North America from south-central British Columbia to

central Mexico. The main threat to bat species within the Resource Study Area is the alteration or removal of roosting habitat. Bat species roost in a variety of human-made and natural substrates, including caves, crevices, mines, buildings, transportation structures, and trees. Also, the conversion of suitable habitat into vineyards and row crops in the Salinas Valley has likely negatively impacted Townsend's big-eared bat and pallid bat by reducing their prey base and altering their feeding and foraging routes. Townsend's big-eared bat, pallid bat, and other roosting bats are in a state of declining health within the Resource Study Area.

Paleontological Resources

Paleontological resources in the Resource Study Area have been determined to be in good to moderate health due to degradation by both natural processes and human activities, but there is an abundance of undeveloped land where exposures of paleontologically sensitive strata remain intact.

Natural processes that can affect paleontological resources include wildfires, earthquakes, erosion, and weathering. Human activities often have the greatest impact on paleontological resources because such activities involve physical modification of the landscape, including grading and other earthmoving operations. Human activities can also worsen the effects of natural processes. For example, road construction can destabilize slopes and increase erosion of archaeological sites, and agricultural practices may speed up erosion or change the chemistry of soils preserving archaeological resources.

Because paleontological resources are nonrenewable, the good to moderate health of the resources within the Resource Study Area will never fully recover. However, the health of paleontological resources is no longer in decline. Since the environmental movement of the 1960s and 1970s, the passage of federal, state, and local legislation has provided regulatory protection of paleontological resources. Any current or future development that may affect paleontological resources would be required to offset impacts through mitigation that involves paleontological monitoring, fossil salvage, and conservation of salvaged fossils in a scientific repository. On a local level, the 2010 Monterey County General Plan's Conservation and Open Space Element contains goals and policies that aim to protect and preserve paleontological resources. The Conservation and Open Space Element of the 2010 County of San Luis Obispo General Plan also contains similar measures.

Step four is the identification of the direct and indirect impacts of the project on these resources. See Section 2.1.4- Biological Resources and Section 2.1.7 Geology and Soils for a detailed description of project-level impacts.

Step five requires identifying current and reasonably foreseeable actions that could affect each of the four biological resources or paleontological resources included in the analysis. Reasonably foreseeable projects are those that are at least partly through the environmental clearance process. The available

environmental documentation was used to make a determination as to whether a given project is likely to affect each resource under consideration in the cumulative analysis. Of the eight reasonably foreseeable projects within the biological Resource Study Area that may affect jurisdictional features, four may affect South-Central California Coast steelhead, six may affect southwestern pond turtle or their habitat, and five may affect bats or their roosting habitat, and may affect paleontological resources. Several financially constrained projects from the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito and Santa Cruz counties also have potential to affect these resources. However, it is anticipated that avoidance, minimization, and mitigation measures would be implemented to the extent determined necessary and feasible.

Step six is the process of assessing potential cumulative impacts. See Table 2.15 for the determination for each resource.

Table 2.15. Summary of Overall Cumulative Impact

Resource	Would the Proposed Project Contribute to an Existing Adverse Cumulative Impact?	Would the Proposed Project's Contribution Be Considerable?	Considerations for Identifying Adverse Cumulative Impacts and the Proposed Project's Contribution
Jurisdictional Areas	No	No	Jurisdictional areas within the Resource Study Area have undergone a decline in health over the last several decades. However, the Bradley Capital Preventative Maintenance project would not have permanent impacts to the streambed. The project would remove old piers from the streambed at the San Antonio River Bridges location, and new piers would be placed outside of the active channel. Though the project would permanently impact some new jurisdictional streambank, removal of old piers would result in a net increase of jurisdictional streambank.
			With the incorporation of restoration of temporary impacts and compensatory mitigation for permanent impacts (resulting in no net loss), the project would not contribute to a negative cumulative impact to aquatic resources.

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Resource	Would the Proposed Project Contribute to an Existing Adverse Cumulative Impact?	Would the Proposed Project's Contribution Be Considerable?	Considerations for Identifying Adverse Cumulative Impacts and the Proposed Project's Contribution
South-Central California Coast Steelhead	No	No	South-Central California Coast steelhead is in a state of poor health within the Resource Study Area. The project proposes to remove all existing bridge piers within the active channel. Pilings for the new replacement structures would be placed outside of the active channel, thereby providing a net increase in stream habitat.
			The project may have temporary impacts to steelhead, if present, during construction when stream flows are diverted through the work area. However, with the incorporation of avoidance and minimization measures during construction, restoration of temporary impacts, and no net loss of steelhead critical habitat, the project would not contribute to a negative cumulative impact to South-Central California Coast steelhead.
Southwestern Pond Turtle	No	No	The southwestern pond turtle species health is likely declining within the Resource Study Area. However, the project would have a net increase in suitable pond turtle habitat through the reestablishment of streambank along the San Antonio River. With the incorporation of avoidance, minimization, and mitigation measures outlined in Section 2.1.4 Biological Resources, the project would not contribute to a negative cumulative impact to the southwestern pond turtle.

Resource	Would the Proposed Project Contribute to an Existing Adverse Cumulative Impact?	Would the Proposed Project's Contribution Be Considerable?	Considerations for Identifying Adverse Cumulative Impacts and the Proposed Project's Contribution
Townsend's Big-Eared Bat, Pallid Bat, and Other Roosting Bats	Yes	No	Townsend's big-eared bat, pallid bat, and other roosting bats are in a state of declining health within the Resource Study Area. Though the Bradley Capital Preventative Maintenance project would incorporate avoidance and minimization measures as well as proposed mitigation, the project is still anticipated to have a temporary loss of day, maternity, and possibly night roosting habitat (depending on the alternative selected) because construction of the bridges would take up to four seasons.
			Pallid bats would be without suitable roosting (including maternity) habitat at the San Antonio Bridges locations for three to four seasons. However, suitable alternative night and day roosting habitat is present in the vicinity of the Area of Potential Impact including at the Bradley Road Bridge (San Luis Obispo County Bridge No. 44C-0050) where pallid bats have been documented day roosting in expansion joints. The Bradley Road Bridge is approximately 0.85 mile northwest of the San Antonio River Bridges. Other potential roosting habitat is present on Camp Roberts base, though current status is unknown. Many of the California Natural Diversity Database occurrences near the Area of Potential Impact are reported from buildings or facilities on the military base.
			This temporary loss could contribute to cumulative impacts to bat species of special concern. However, with the availability of alternative roost sites nearby that may be used during construction and the proposed mitigation to be created on new structures, this project is not anticipated to considerably contribute to an adverse cumulative effect on Townsend's big-eared bat or pallid bat populations within the Resource Study Area.

Resource	Would the Proposed Project Contribute to an Existing Adverse Cumulative Impact?	Would the Proposed Project's Contribution Be Considerable?	Considerations for Identifying Adverse Cumulative Impacts and the Proposed Project's Contribution
Paleontological Resources	No	No	Paleontological resources within the Resource Study Area are not experiencing a cumulative effect from current and reasonably foreseeable future projects. Exposures of paleontologically sensitive strata within the Resource Study Area include large swaths of rural and mountainous terrain that are unlikely to be disturbed by human activities and would only be minimally affected by natural processes. The relatively small percentage of paleontologically sensitive strata in the Resource Study Area that may be disturbed by current or future development would be offset by mitigation strategies required for regulatory compliance.
			Taken together, paleontological resources within the Resource Study Area are not experiencing a cumulative effect from current and reasonably foreseeable future projects.
			In addition, mitigation is proposed to reduce impacts of the Bradley Capital Preventative Maintenance project to a less than significant level. Therefore, potential impacts from the project would not contribute to a considerable cumulative effect on paleontological resources.

Step seven is to document the results of the cumulative impact analysis process performed in steps one through seven. The Cumulative Impact Report documents and summarizes these seven steps.

In accordance with Caltrans Cumulative Impact Analysis and Growth Related, Indirect Impact Guidance, the final step—step eight—in the cumulative impacts analysis is to recommend actions to sustain these resources. These are actions that the identified agencies could take to influence the sustainability of the resource.

The following general recommendations are made to reduce the overall decline in health of the identified biological resources:

Jurisdictional Waters, Wetlands, and Riparian Habitat

Cumulative-1. Agencies with regulatory authority over wetlands and riparian areas include the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, and the Central Coast Regional Water Quality Control

Board. These agencies should support efforts to restore and enhance jurisdictional wetlands, other waters, and riparian habitat within the Resource Study Area. This not only would directly benefit those resources but would improve habitat for the aquatic and semi-aquatic species.

South-Central California Coast Steelhead

Cumulative-2: Agencies with regulatory authority over critical habitat include the U.S. Fish and Wildlife Service and National Marine Fisheries Service. These agencies should support efforts to restore and enhance critical habitat within the Resource Study Area. This not only would directly benefit those resources but would improve habitat for other aquatic and semi-aquatic species that depend on the same habitat.

Southwestern Pond Turtle

Cumulative-3. Agencies with regulatory authority over federally listed or proposed listed species include the U.S. Fish and Wildlife Service and National Marine Fisheries Service. These agencies should support efforts to protect these species and restore and enhance their habitat within the Resource Study Area.

Townsend's Big-Eared Bat, Pallid Bat, and Other Roosting Bats

Cumulative-4. The California Department of Fish and Wildlife has regulatory authority over species of special concern including roosting bats. The California Department of Fish and Wildlife should support efforts to restore and enhance the species and their habitat within the Resource Study Area.

Paleontological Resources

The following general recommendation was made to reduce the overall decline in health of paleontological resources:

Cumulative-5. Agencies with regulatory authority over paleontological resources within the Resource Study Area include the U.S. Military, the Bureau of Land Management, the County of Monterey, and the County of San Luis Obispo. To maintain the good health and stability of paleontological resources within the Paso Robles Formation, these agencies should continue to implement and enforce planning policies and guidelines that protect paleontologically sensitive strata in the Resource Study Area that may be disturbed by current or future development within the region and the project area.

Human Environment

Aesthetics

Implementation of the project would result in visual changes in the project vicinity. A visual scale increase and change in the current rural character would occur as a result of the project elements.

Although potential visual changes would occur, the same type of elements proposed with this project are seen elsewhere along the highway and are not by themselves inconsistent with the rural roadway character of the region or throughout the state.

It is expected that, following project construction and revegetation, the project would be generally unnoticed by the casual observer on U.S. 101 and other public roads in the area. If noticed, the project with proposed minimization measures would not appear out-of-place within the setting. With implementation of avoidance and minimization measures, a less than significant impact would occur. See Section 2.1.1 for more information.

Air Quality

Project construction will result in a short-term temporary increase in air emissions and fugitive dust. Use of equipment during project construction can generate fugitive dust that may have temporary impacts on local air quality due to earthwork. Though temporary dust generation would be expected, a less than significant impact would result with implementation of avoidance and minimization measures. See Section 2.1.3 for more information.

Geology and Soils

The project would not directly or indirectly cause potential substantial adverse effects due to geologic or soil conditions. A less than significant overall impact would occur. No avoidance, minimization, or mitigation measures are necessary. See Section 2.1.7 for more information and for the discussion of paleontological resources.

Greenhouse Gas Emissions

This type of project is not expected to alter operational greenhouse gas emissions. Because the project would not increase the number of travel lanes on U.S. 101, no increase in vehicle miles traveled would occur as result of project implementation. However, some greenhouse gas emissions would be generated during the construction period. With implementation of Caltrans Standard Specifications and avoidance and minimization measures, a less than significant impact would result. See Section 2.1.8 for more information.

Hazardous Waste

The completed project would improve highway reliability and would not interfere with emergency response or emergency evacuation plans. In addition, the project would not increase the risk of loss, injury, or death due to wildland fires. A traffic control plan would be implemented during construction and emergency responders would be made aware of any traffic disruptions, delays, or detours in advance.

Furthermore, all hazardous waste would be handled according to appropriate standard specifications. The release of hazardous materials is not anticipated.

Routine hazardous waste issues may be encountered during construction, but would be appropriately handled, treated, and disposed of (if required) with implementation of Caltrans Standard Specifications. During the project design phase, an aerially deposited lead study may be completed, and the hazardous waste specialist will work with the project design team to determine the appropriate Standard Special Provisions to include in the construction contract. With implementation of appropriate Standard Special Provisions, adverse effects to human health or the environment are not anticipated. See Section 2.1.9 for more information.

Water Quality

The total proposed Disturbed Soil Area across the project area is 16.86 acres. A Construction General Permit, including the preparation of a Stormwater Pollution Prevention Plan, will be completed for the project. The project is anticipated to minimally increase impervious surface area, by about 0.1 acre. The temporary effects that disturbing 16.86 acres of soil would have on the receiving waters can be minimized by implementing temporary best management practices proposed in the Water Quality Assessment Report and by implementing avoidance and minimization measures. A preliminary project risk level assessment has determined this project to be a risk level 2 out of 3, in regard to temporary impacts to storm water.

Temporary impacts to aquatic resources will take place as a result of construction. Construction of new bridges will also require clear water diversion from the creek.

Based on preliminary studies performed for this project and on prior studies completed for the earlier San Antonio River Bridge Retrofit Project, temporary impacts to groundwater are not anticipated. This will be further evaluated during the design phase, once the geotechnical drilling required for further studies is environmentally cleared and permitted.

The project will produce 4,356 square feet of net impervious surface. The increase in impervious surface will increase the amount of storm water runoff, which in turn has the potential to affect receiving water quality. The nature of these impacts depends on the uses and flow rate or volume of the receiving water, rainfall characteristics, and highway characteristics. Heavy metals associated with vehicle tire and brake wear, oil and grease, and exhaust emissions are the main pollutants associated with transportation corridors. There are no existing treatment best management practices along U.S. 101 within the project limits to treat roadway runoff. Therefore, the water quality of the receiving water bodies would still be affected by highway runoff as a result of this project. However, with effective combinations of temporary and permanent erosion and sediment controls, these water quality effects are anticipated to be minimal.

The project will occur within Federal Emergency Management Agency (FEMA) regulated floodplains. However, no significant floodplain encroachments have been identified with the project. The project would not significantly impact the 100-year floodplains.

See Section 2.1.4 and Section 2.1.10 for more information and for a list of avoidance and minimization measures.

Noise

No long-term noise increase will occur as a result of the project. However, noise levels in the vicinity of construction will experience a short-term increase due to construction activities. Caltrans policy states that normal construction equipment would not emit noise levels greater than 86 decibels at 50 feet from the source.

It is anticipated that some construction activities will occur at night, including cold planing and overlay, K-rail placement, placing girders and falsework, and placing rumble strips. However, the project is not directly adjacent to any homes or other sensitive receptors.

Work will be done during the day when possible, and Caltrans Standard Specifications and avoidance and minimization measures would be implemented. See Section 2.1.3 for more information.

Transportation

The completed project would improve highway reliability by maintaining the road and bridges in good condition. There would be traffic delays during construction due to temporary closures, ramp closure, and/or one-way traffic control. However, traffic stops and detours would be executed in accordance with the traffic control plan. Emergency services would be notified of potential disruptions, delays, or detours in advance to minimize impacts to emergency access.

Avoidance, Minimization, and/or Mitigation Measures

The complete list of avoidance, minimization, and mitigation measures associated with this project can be found in Appendix B. Section 1.5 Standard Measures Included in All Alternatives lists the standard specifications that will be implemented.

Appendix A Section 4(f) De Minimis Determination

SECTION 4(F) DE MINIMIS DETERMINATION(S)

This section of the document discusses *de minimis* impact determinations under Section 4(f). Section 6009(a) of SAFETEA-LU amended Section 4(f) legislation at 23 United States Code (USC) 138 and 49 USC 303 to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). This amendment provides that once the U.S. Department of Transportation (USDOT) determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete. The Federal Highway Administration's final rule on Section 4(f) *de minimis* findings is codified in 23 Code of Federal Regulations (CFR) 774.3 and CFR 774.17.

Section 4(f) properties are any publicly owned land of a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance and land of any historic site of national, state, or local significance. The definition of a *de minimis* impact, as set forth is 23 Code of Federal Regulation Section 774.17, specifies that ... "For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f)."

Responsibility for compliance with Section 4(f) has been assigned to Caltrans pursuant to 23 USC 326 and 327, including de minimis impact determinations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

Section 4(f) Property Description

The Big Sandy Wildlife Area contains 857 acres of open grasslands and some open stream habitat that is owned and managed by the California Department of Fish and Wildlife. The area is divided into two parcels: the Big Sandy Unit located on the south side of Camp Roberts, and the San Antonio Unit located to the north. The San Antonio Unit is about 120 acres in size and is located at the confluence of the San Antonio and Salinas rivers. The parcel is bisected by U.S. 101 and surrounded on the south side by the Camp Roberts Military installation. Recreational opportunities within the Big Sandy Wildlife Area include wildlife viewing and hunting (quail, wild pigs, deer). However, the San Antonio Unit does not experience much foot traffic by the public because the only legal way to access it is by walking up the Salinas River from the Bradley Undercrossing.

Use of the Section 4(f) Property

The replacement of the San Antonio River Bridges will occur within the San Antonio Unit of the Big Sandy Wildlife Area (see Figure 2-1 below). Caltrans Environmental and Design groups have worked together to minimize the use of support structures for the new San Antonio River Bridges. Due to the reduced number of support structures for the proposed new San Antonio River Bridges, the project will result in a net reduction of permanent structures within the streambed and riparian/streambank corridor. Removal of existing hardscape and structural elements will reestablish jurisdictional areas and will fully offset permanent impacts. Access to the wildlife area and hunting activities would not be prohibited during construction or upon completion of the project. Therefore, no permanent impacts would occur to the recreational use or riparian habitat in the San Antonio Unit.

However, the project will have temporary impacts spanning three to four seasons at the San Antonio River. Demolition of the old bridge and construction of the new bridge would occur over multiple seasons as work in the channel is prohibited in the rainy season. A temporary construction easement would be obtained from the California Department of Fish and Wildlife to allow access for construction workers and construction equipment. The project would temporarily impact a small portion of the San Antonio Unit and the Big Sandy Wildlife Area as a whole.

In acreage, 9.06 acres of the project's Area of Potential Impact overlaps with the 120-acre San Antonio Unit (see Figure 2-2, below). Temporary construction easements would be obtained, and no portion of the wildlife area would need to be permanently acquired. The vast majority of the wildlife refuge would still be accessible by the public during construction. The area under and immediately adjacent to the San Antonio River Bridges would have access intermittently restricted during the bridge construction period. Bridge construction would be three seasons for Alternative 1 and four seasons for Alternative 2. During the three to four seasons of construction, construction staff would occasionally need to limit access to this small portion of the wildlife preserve when necessary for safety of the public and to accommodate bridge demolition and construction. Limitations on use of this small area would be minimized as much as feasible. The public access points to the Big Sandy Wildlife Refuge and public activity on the rest of the refuge would not be affected during these times. The activities, features, and attributes of the refuge that qualify it for protection under 4(f) would not be adversely affected.

In addition, the project would preserve vegetation to the maximum extent feasible, replant disturbed areas, and comply with all conditions outlined in the Section 1602 Streambed Alteration Agreement, Section 401 Water Quality Certification, Section 404 Nationwide Permit, National Marine Fisheries Service Biological Opinion, and U.S. Fish and Wildlife Service Biological Opinion.

Figure 2-1. Section 4(f) Map

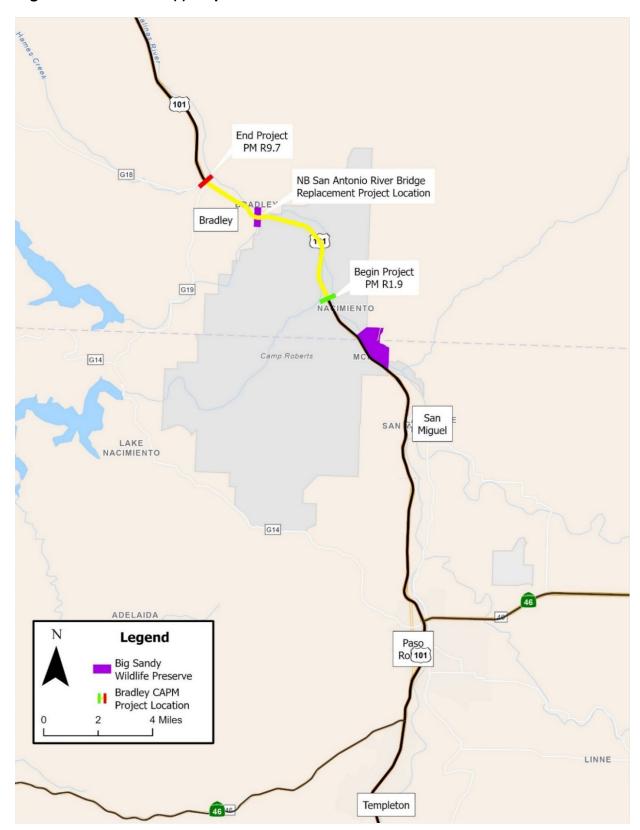
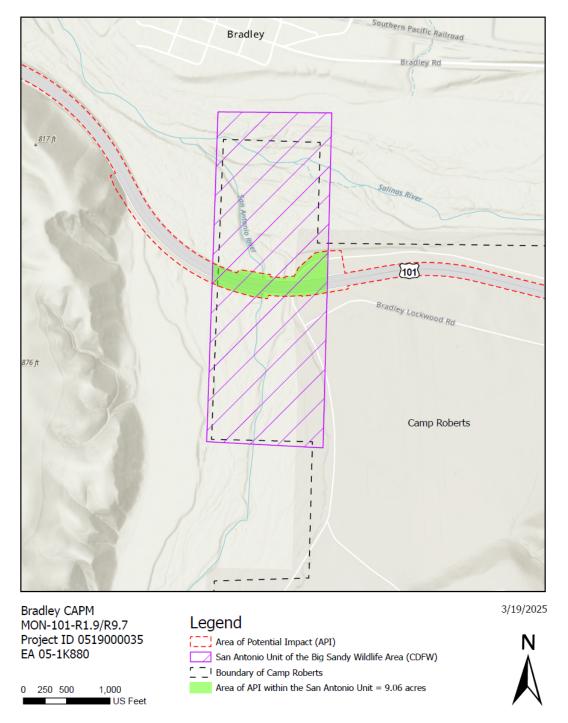


Figure 2-2: Project Area of Potential Impact Within San Antonio Unit Map



Proposed De Minimis Use Determination

Caltrans believes the proposed project would have a minimal impact to the San Antonio Unit of the Big Sandy Wildlife Area and that this impact would not be considered adverse. The Section 4(f) determination is based on the following:

- There is no prudent and feasible alternative to replacement of the San Antonio River Bridges that would avoid use of the Section 4(f) property.
- The project has been designed to avoid and minimize environmental impacts as much as feasible and would not permanently affect habitat or habitat connectivity.
- The San Antonio Unit is not easily accessible to the public due to a lack of parking lots, access trails, and the presence of the Camp Roberts Military installation. The only legal way to access it is by walking up the Salinas River from the Bradley Undercrossing.
- The use of the property is temporary, and no portion of the property would be permanently acquired by Caltrans.
- The project would temporarily affect a small portion of the San Antonio Unit (9.06 acres of the 120-acre San Antonio Unit overlap with the project's Area of Potential Impact).
- The activities, features, and attributes of the refuge that qualify it for protection under Section 4(f) would not be adversely affected.

Avoidance, Minimization, and Mitigation Measures

See Section 2.1.4 Biological Resources for a list of avoidance, minimization, and mitigation measures that will be implemented to ensure all possible biological impacts to the Big Sandy Wildlife Area are reduced to a less than significant level. No additional measures are included specifically to minimize the Section 4(f) resource use.

Public Notice Process

A combined notice will be posted in a local newspaper to alert the public of the proposed Section 4(f) determination and the availability of the draft environmental document. A letter explaining the proposed finding will be sent to the California Department of Fish and Wildlife, the entity who owns and manages the Big Sandy Wildlife Area. Written concurrence from the California Department of Fish and Wildlife on the proposed *de minimis* determination will be included in the final environmental document

Appendix B Avoidance, Minimization and Mitigation Measures Summary

To ensure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as shown in the proposed Environmental Commitments Record that follows) would be implemented. During project design, avoidance, minimization, and/or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in the Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. Because the following Environmental Commitments Record is a draft, some fields have not been completed; they will be filled out as each of the measures is implemented.

Note: Some measures may apply to more than one resource area. Duplicated or redundant measures have not been included in this Environmental Commitments Record.

Aesthetics

Avoidance and Minimization Measures

- VIS-1. Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques that save the most existing vegetation possible should be employed.
- VIS-2. Revegetate all disturbed soil areas with native plant species and other erosion control treatments appropriate to each specific work location as directed by Caltrans District 5 Landscape Architecture.
- VIS-3. Replacement planting shall include aesthetic considerations as well as the inherent biological goals. Revegetation shall include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture and shall be maintained through plant establishment.
- VIS-4. All visible concrete drainage elements (including but not limited to headwalls, drain inlet aprons, etc.) should be colored to blend with the surroundings and reduce reflectivity. The specific colors of these concrete elements shall be determined by Caltrans District 5 Landscape Architecture.
- VIS-5. If vegetation control under guardrails is required, shale or colored concrete will be selected to blend in with the natural surrounding and reduce

reflectivity. The selection of the vegetation control material and/or color shall be determined and approved by District 5 Landscape Architecture in coordination with District 5 field maintenance.

- VIS-6. Structural elements such as bridges and the retaining walls will include aesthetic treatment, such as texture, to reduce glare and graffiti. Aesthetic treatments are to be determined by District 5 Landscape Architecture.
- VIS-7. Bridge railing selection shall be in "open-style" type 85, 86H or similar. Bridge railing and bridge aesthetics will be developed as a collaboration between Caltrans District 5 Landscape Architecture and Structures Design.
- VIS-8. Following construction, re-grade and re-contour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

Biology

Jurisdictional Features

Avoidance and Minimization Measures

The project will impact U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdictional areas within the Area of Potential Impact. The following avoidance and minimization measures will be implemented to reduce the potential impacts to these jurisdictional areas resulting from the project:

- BIO-1. Prior to construction, Caltrans shall obtain a Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alternation Agreement from the California Department of Fish and Wildlife. All permit terms and conditions will be incorporated into construction plans and implemented.
- BIO-2. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around jurisdictional features and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas shall be noted on design plans and delineated in the field prior to the start of construction activities.
- BIO-3. Construction activities in jurisdictional waters and temporary stream diversion, if needed, shall be timed to occur between June 1 and October 31 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at a seasonal minimum. Deviations from this work window will be made only with permission from the relevant regulatory agencies.

- BIO-4. During construction, all project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor onsite at all times during construction.
- BIO-5. During construction, erosion control measures shall be implemented. Temporary large sediment barrier, fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.
- BIO-6. During construction, the staging areas shall conform to Best Management Practices. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.
- BIO-7. Stream contours shall be restored as close as possible to their original condition.

Compensatory Mitigation Measures

- BIO-8. Temporary impacts to jurisdictional areas will be restored at a 1-to-1 ratio. All native trees removed within jurisdictional areas will be replaced at a 3-to-1 ratio for trees less than 12 inches in diameter at breast height and at a 10-to-1 ratio for trees equal to or greater than 12 inches in diameter at breast height. Replacement plantings will include appropriate native tree and understory species. To ensure success, monitoring and an appropriate plant establishment period will be required, which will include regular inspections, weeding, and replacement.
- BIO-9. Replacement plantings will be detailed in Caltrans' Landscape Architecture Landscape Planting Plan and the final Mitigation Monitoring Plan. The Mitigation Monitoring Plan will be developed in coordination with the project biologist and will include planting specifications and grading plans to ensure survival of planted vegetation and reestablishment of functions and values. The final Mitigation Monitoring Plan will detail mitigation commitments and will be consistent with standards and mitigation commitments from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife. The Mitigation Monitoring Plan will be prepared when more detailed construction plans are developed and will be finalized through the permit review process with regulatory agencies. Restoration plantings will consist of native riparian species and associated riparian understory and bank species.

Invasive Species

Avoidance and Minimization Measures

- BIO-10. During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.
- BIO-11. Only clean fill shall be imported. When practicable, invasive exotic plants in the project site shall be removed and properly disposed of. Any plant species rated as "High" on the California Invasive Plant Council Invasive Plant Inventory that are removed from the construction site shall be taken to a landfill to prevent the spread of invasive species.
- BIO-12. Plant species that the California Invasive Plant Council, California Department of Agriculture, California Department of Fish and Wildlife, or other resource organizations consider to be invasive or potentially invasive will not be used in erosion control seed mix or to revegetate areas of disturbance. Caltrans erosion control mix will contain only native species to the Central Coast of California.
- BIO-13. Construction equipment shall be inspected as "weed-free" by Caltrans before entering the construction site. If necessary, wash stations onsite shall be established for construction equipment under the guidance of Caltrans to avoid/minimize the spread of invasive plants and/or seed within the construction area.

Hardham's Evening-Primrose and Elegant Buckwheat

Avoidance and Minimization Measures

- BIO-14. Prior to start of construction, a Caltrans-approved Biologist shall conduct an appropriately timed botanical survey on Camp Roberts property, within the Area of Potential Impact. If Hardham's evening-primrose or elegant buckwheat is detected, the number of individuals shall be estimated and boundaries of the occurrences shall be mapped. The mapped areas shall be noted as "sensitive plant areas" and avoided with Environmentally Sensitive Area fencing, where feasible.
- BIO-15. If any of the mapped "sensitive plant areas" cannot be avoided, soil salvage shall be implemented. Salvaged soil will be stockpiled onsite and spread back over the disturbed area after construction completion.
- BIO-16. Prior to start of construction, a Caltrans-approved Biologist shall conduct a worker environmental training program, including a description of Hardham's evening-primrose or elegant buckwheat and its habitat, the species' legal/protected status, location within the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating relevant environmental commitments.

BIO-17. New observations of Species of Special Concern or other specialstatus plant species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

South-Central California Coast Steelhead

Avoidance and Minimization Measures

BIO-18. In-stream work will take place between June 15 and October 31 in any given year, when the surface water within San Antonio River is likely to be at a seasonal minimum. Deviations from this work window will be made only with permission from the relevant regulatory agencies. During in-stream work, a qualified biologist will be retained with experience in steelhead biology and ecology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating fish species. During in-stream work, the biological monitor(s) will continuously monitor placement and removal of any required stream diversions and will capture stranded steelhead and other native fish species and relocate them to suitable habitat, as appropriate. The biologist(s) will capture steelhead stranded as a result of diversion/dewatering and relocate steelhead to the nearest suitable in-stream habitat. The biologist(s) will note the number of steelhead observed in the affected area, the number of steelhead relocated, and the date and time of the collection and relocation.

BIO-19. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes will be completely screened with no larger than 0.2-inch (5-millimeter) wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps will release the diverted water so that suspended sediment will not re-enter the stream. The form and function of pumps used during the dewatering activities will be checked daily, at a minimum, to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.

BIO-20. Design replacement bridge structures without scuppers, deck drains, or other facilities that drain storm water directly into the stream to prevent pollutants such as 6PPD-quinone (an oxidation product of 6PPD, an additive intended to prevent damage to tire rubber from ozone that is short for N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine) from directly entering waterways.

Southwestern Pond Turtle

Avoidance and Minimization Measures

BIO-21. The project includes Environmentally Sensitive Areas to minimize impacts to sensitive areas and species. The project plans would delineate Environmentally Sensitive Areas that restrict access to the minimum required for construction, minimizing impacts to southwestern pond turtles and their habitat. No vehicle access within these Environmentally Sensitive Areas would be permitted. During construction, the Resident Engineer and biological

monitor would determine and agree upon the exact placement of Environmentally Sensitive Area markers, based on the project plans, and would determine and agree upon the appropriate material for marking Environmentally Sensitive Areas.

BIO-22. Prior to construction, a qualified biologist will provide an environmental awareness training to all personnel on the potential for southwestern pond turtles to occur in the Area of Direct Impact. The contractor shall submit a written request to the Resident Engineer 14 calendar days prior to the performance of any work to schedule training.

BIO-23. Prior to the start of excavation or construction activities, a qualified biologist will conduct a preconstruction survey for the southwestern pond turtle. If any are found within the Area of Potential Impact, they will be relocated to a suitable location outside of the Area of Potential Impact. The qualified biologist will use the most current survey protocols available for the species to ensure highest level of species detection, including visual encounter surveys and nesting survey techniques.

BIO-24. A qualified biologist shall be present onsite during all initial vegetation removal and ground-disturbing activities. If pond turtles are encountered, only a Service-approved biologist shall handle and relocate the animals.

BIO-25. The project shall avoid altering hydrology of and causing increased sedimentation rates into San Antonio River by minimizing soil compaction and treating all storm water before it is discharged into turtle habitat.

Western Spadefoot

Avoidance and Minimization Measures

BIO-26. During the winter season prior to start of construction, a qualified biologist shall survey areas of the project with suitable habitat during the wet season when pools/puddles would be present. If spadefoots are present, Caltrans shall coordinate with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife.

BIO-27. Seasonal Avoidance: Caltrans will schedule project activities to minimize adverse effects to the western spadefoot and its habitat. Disturbance to habitat will be confined to the dry season, generally May 1 through October 31 (or the first measurable fall rain of 1 inch or greater) because that is the time period when western spadefoots are less likely to be moving through upland areas. However, if seasonal avoidance is not possible, grading, and other disturbance in pools and ponds will occur only when they are dry, typically between July 15 and October 31. Work within a pool or wetland may begin prior to July 15 if the pool or wetland has been dry for a minimum of 30 days prior to initiating work.

BIO-28. Rain Event Limitations: No construction activities will occur during rain events or within 24 hours following a rain event. Prior to construction activities resuming, a qualified biologist will inspect the project area and all equipment/materials for the presence of the western spadefoot. Construction may continue 24 hours after the rain ceases if no precipitation is forecasted within 24 hours. If rain exceeds 0.5 inch during a 24-hour period, work will cease until no further rain is forecasted.

BIO-29. Preconstruction Survey: No more than 24 hours prior to the date of initial ground disturbance and vegetation clearing, a qualified biologist with experience in the identification of all life stages of the western spadefoot will conduct a preconstruction survey within suitable habitat at the project site. The survey will consist of walking the subject area to determine possible presence of the species. The qualified biologist will investigate all areas that could be used by the western spadefoot for feeding, breeding, sheltering, movement, and other essential behaviors, such as small woody debris, refuse, burrows, etc.

BIO-30. Biological monitoring by a qualified biologist(s) will be carried out during initial ground-disturbing activities and are limited once the area of interest is cleared of species. If western spadefoots are detected during initial ground disturbance monitoring, the qualified biologist(s) will periodically visit the site throughout the construction period. No construction work will be initiated until the biologist(s) determines that the work area is clear of the western spadefoot.

San Joaquin Kit Fox

Avoidance and Minimization Measures

BIO-31. Project employees will be directed to exercise caution when commuting within listed species habitats. A 20-mile-per-hour speed limit will be observed in all project areas, except on county roads and state and federal highways. Cross-country travel by vehicles will be prohibited outside of the project area unless authorized by the U.S. Fish and Wildlife Service. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

BIO-32. Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a Caltrans or U.S. Fish and Wildlife Service-approved biologist. The program will consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology, legislative protection, and measures to avoid impacts to the species during project implementation.

- BIO-33. A litter control program will be initiated at each project site. No pets or firearms (except for law enforcement officers and security personnel) will be allowed onsite.
- BIO-34. Excavations deeper than 2 feet will be covered with plywood or similar material at the end of each workday, or escape ramps put in place to prevent any entrapment. Each excavation will be inspected thoroughly before being filled.
- BIO-35. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater stored on the construction site overnight will be thoroughly inspected for San Joaquin kit foxes prior to being buried, capped, or otherwise used or moved. If a San Joaquin kit fox is discovered inside a pipe, the pipe shall not be moved until the U.S. Fish and Wildlife Service has been consulted. If the San Joaquin kit fox is in direct harm's way, the pipe may be moved to a safe location one time under the direct supervision of a qualified biologist.
- BIO-36. The Resident Engineer or their designee will be responsible for implementing these conservation measures, and the Caltrans biologist will represent the point of contact for the project.
- BIO-37. Restoration and vegetation work will use California endemic plant materials from onsite or local sources. Loss of soil from runoff or erosion will be prevented using fiber rolls or similar material and by implementing the best management practices from the Caltrans National Pollutant Discharge Elimination System statewide stormwater permit.
- BIO-38. Prior to any ground disturbance in suitable habitat, a preconstruction survey will be conducted for San Joaquin kit fox. The preconstruction survey will be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance or construction activities. The survey will identify any potential kit fox dens. The status of all potential dens will be determined and mapped. Potential dens will be monitored with tracking medium or infrared camera for three consecutive days to determine the current use. If no kit fox activity is observed during this period and no other kit fox sign is observed in the vicinity, then the den is assumed unoccupied. If kit fox activity is observed at a den, Caltrans will contact the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife for further coordination.
- BIO-39. Written results of the preconstruction survey will be submitted to the U.S. Fish and Wildlife Service within five days after survey completion and prior to the start of ground disturbance. If a natal or pupping den is discovered within the project area or within 200 feet of the project boundary, the U.S. Fish and Wildlife Service will be notified immediately. If the preconstruction survey reveals an active natal den or new information, Caltrans will notify the U.S. Fish and Wildlife Service immediately for further consultation.

Least Bell's Vireo and Southwestern Willow Flycatcher

Avoidance and Minimization Measures

BIO-40. Prior to construction, vegetation removal shall be scheduled to occur from September 2 to January 31, outside of the typical nesting bird season if possible, to avoid potential impacts to nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 1), a nesting bird survey shall be conducted by a qualified biologist no more than five calendar days prior to construction.

BIO-41. If least Bell's vireo or southwestern willow flycatcher are observed within 100 feet of the project area during the course of construction or during the preconstruction surveys, all project activities shall cease immediately and the relevant resource agencies shall be consulted. Development of additional avoidance and minimization measures will occur as necessary in coordination with the pertinent agencies.

Bald Eagle

Avoidance and Minimization Measures

BIO-42. Work activities between February 1 and September 1 (bald eagle nesting season), including staging, within a line-of-sight of the known bald eagle nest (primarily only Jolon Road northbound off-ramp), will not occur until a qualified biologist conducts a survey to determine nest activity.

BIO-43. If the nest is inactive, work may commence. If it is active and there is no line-of-sight, work may occur if the biologist determines work activities will not disturb the nest. If it is active and there is line-of-sight, work will not commence until the qualified biologist has determined that nesting is complete, and eagles have fledged.

BIO-44. Caltrans will submit the project description, mapping, and proposed avoidance measures for review by the U.S. Fish and Wildlife Service for Technical Assistance. The U.S. Fish and Wildlife Service will provide feedback and any additional measures that can be incorporated into the project to ensure no impacts to nesting eagles.

BIO-45. If any additional bald eagle nests are identified prior to or during construction, Caltrans will conduct technical assistance with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife, as needed, to avoid potential adverse effects.

Crotch Bumblebee

Avoidance and Minimization Measures

BIO-46. During the design phase, a Crotch bumblebee habitat assessment will be conducted following the California Department of Fish and Wildlife's "Survey Considerations for California Endangered Species Act Candidate Bumblebee Species" dated June 6, 2023. If Crotch bumblebee habitat is determined to be present within the project site, then the following applies:

- A focused non-invasive survey will be conducted within suitable habitat prior to ground disturbance for Crotch bumblebee and its nests, following California Department of Fish and Wildlife guidance (2023).
- A Worker Environmental Awareness Training will be provided for all construction personnel prior to the start of any ground disturbance or vegetation removal to discuss Crotch bumblebee identification, ecology, habitat, and avoidance and minimization measures.
- Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed, as appropriate, around Crotch bumblebee feeding and nesting habitat to be avoided. Environmentally Sensitive Areas shall be noted on design plans and delineated in the field prior to the start of construction activities.

BIO-47. If Crotch bumblebee is identified in the project area, Caltrans will coordinate with the California Department of Fish and Wildlife and, if necessary, a 2081 Incidental Take Permit will be acquired, and the following would be implemented:

- Any blooming flowering plants that are scoped for removal would be inspected immediately prior to work to ensure that no bumblebees are on or near the plant. If a bumblebee is identified on or adjacent to vegetation that is to be removed, work in that area would not proceed until the bumblebee leaves the area of its own accord.
- No work will occur within 50 feet of an active Crotch bumblebee nest unless approved by the California Department of Fish and Wildlife.

Monterey Dusky-Footed Woodrat

Avoidance and Minimization Measures

BIO-48. Prior to implementation of proposed project activities, a preconstruction visual survey will be conducted within suitable woodrat habitat in the Area of Potential Impact to determine the presence or absence of woodrat nests.

BIO-49. If woodrat nests are located during this survey, avoid them and establish an Environmentally Sensitive Area with a 25-foot buffer around each.

BIO-50. To the extent feasible, project activities requiring grading or vegetation removal within the 25-foot protective buffer should occur only during the non-breeding season (October 1 to December 31) to avoid noise impacts to any breeding woodrats that may occupy the nest from January through September.

BIO-51. If project activities cannot avoid impacting or removing the nest, then it should be dismantled by hand prior to grading or vegetation removal activities. The dismantling shall occur during the non-breeding season (October 1 to December 31) and shall be conducted so that the nest material is removed starting on the side where most impacts will occur and ending on the side where the most habitat will be undisturbed, which will allow for any woodrats in the nest to escape into adjacent undisturbed habitat. The dismantled nest materials shall be placed onto a tarp (or equivalent) and relocated to a location determined by a qualified biologist to be suitable alternative habitat.

BIO-52. If young are encountered during nest dismantling, the dismantling activity should be stopped and the material replaced back on the nest and the nest should be left alone and rechecked in two to three weeks to see if the young are out of the nest or capable of being out on their own (as determined by a qualified biologist); once the young can fend for themselves, the nest dismantling can continue.

BIO-53. Prior to construction in jurisdictional areas, Caltrans shall acquire a Streambed Alteration Agreement from the California Department of Fish and Wildlife pursuant to Fish and Game Code Section 1600 et seq. and shall incorporate any additional measures relating to this species not otherwise addressed in the Natural Environment Study.

American Badger and Salinas Pocket Mouse

Avoidance and Minimization Measures

The following additional avoidance and minimization measures will be implemented for American badger:

BIO-54. Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a qualified biologist. The program will consist of a brief presentation by persons knowledgeable in American badger biology, legislative protection, and measures to avoid impacts to the species during project implementation.

BIO-55. The project plans shall delineate Environmentally Sensitive Areas to minimize impacts to sensitive areas and species by limiting access to the minimum required for construction within the Area of Potential Impact. No vehicle access within the Environmentally Sensitive Areas would occur.

BIO-56. Prior to any ground disturbance in suitable habitat, a preconstruction survey will be conducted for American badger. The survey will identify any potential badger dens. The status of all potential dens will be determined and mapped. Potentially active dens will be monitored with tracking medium or infrared camera for three consecutive days to determine the current use. If no badger activity is observed during this period, then the den will be excavated by hand or carefully with equipment provided by the contractor, under the direction of the biologist to preclude subsequent use. If American badger activity is observed at a den, Caltrans will coordinate with the California Department of Fish and Wildlife for suitable buffer implementation or exclusion methods. Observations of Species of Special Concern, or other special-status species shall be documented on California Department of Fish and Wildlife forms and submitted to the California Department of Fish and Wildlife upon project completion.

The following additional avoidance and minimization measures will be implemented for Salinas pocket mouse:

BIO-57. Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a qualified biologist. The program will consist of a brief presentation by persons knowledgeable in Salinas pocket mouse biology, legislative protection, and measures to avoid impacts to the species during project implementation.

BIO-58. The project plans shall delineate Environmentally Sensitive Areas to minimize impacts to sensitive areas and species by limiting access to the minimum required for construction within the Area of Potential Impact. No vehicle access within the Environmentally Sensitive Areas would occur.

BIO-59. A qualified biologist shall be present during initial ground disturbance activities to capture and relocate any Salinas pocket mice that may be encountered during construction operations. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

Reptile Species of Special Concern

Avoidance and Minimization Measures

The following additional avoidance and minimization measures specific to Northern California legless lizard shall be implemented:

BIO-60. A qualified biologist shall conduct preconstruction surveys for legless lizards within five calendar days before initial ground disturbance proposed within coast live oak woodlands and/or prior to tree removal. Where feasible, this survey shall include systematic subsurface searching (raking suitable habitat) because legless lizards are fossorial.

BIO-61. If any legless lizards are discovered during preconstruction surveys, they will be relocated to a nearby area with suitable habitat similar to where they were discovered (as stated above for other Species of Special Concern reptiles and amphibians). Also, if discovered during preconstruction surveys, a qualified biologist will be present during oak tree removal to safely relocate any legless lizards that could be uncovered during tree removal.

The following avoidance and minimization measures will be implemented for coast horned lizard and San Joaquin coachwhip:

BIO-62. Prior to construction, a qualified biologist shall survey the Area of Potential Impact and, if present, capture and relocate any coast horned lizards and San Joaquin coachwhips to the nearest suitable habitat outside of the Area of Potential Impact. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

BIO-63. The project plans shall delineate Environmentally Sensitive Areas to minimize impacts to sensitive areas and species by limiting access to the minimum required for construction within the Area of Potential Impact. No vehicle access within the Environmentally Sensitive Areas will occur.

BIO-64. A qualified biologist shall be present during initial ground disturbance activities to capture and relocate any coast horned lizards and/or San Joaquin coachwhips that may be encountered during construction operations.

Townsend's Big-Eared Bat, Pallid Bat, and Other Roosting Bats
Avoidance and Minimization Measures

The following measures are recommended to avoid and minimize potential impacts to roosting bat species:

BIO-65. Tree removal shall be scheduled to occur from September 1 to February 14, outside of the typical bat maternity roosting season, if possible, to avoid potential impacts to tree roosting bats. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the bat maternity roosting season (February 15 to August 31), a bat roost survey shall be conducted by a biologist determined qualified by Caltrans within 14 calendar days prior to construction. If roosting bats are found, a qualified Caltrans biologist shall determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be

avoided until a qualified biologist has determined that roosting activity has ceased, or exclusionary methods have successfully evicted roosting bats.

BIO-66. Since bats are known to roost on the subject bridges and culvert, a Bat Exclusion Plan will be prepared by a qualified biologist for approval at least 30 days prior to exclusion installation. If it is determined that bat exclusion is necessary and the plan feasible, a qualified biologist will be contracted to oversee implementation of passive exclusion in roosting areas. Suitable exclusionary materials may include Visqueen poly sheeting, foam filling (for crevices), or other mechanical devices. Netting is not a suitable exclusionary material. Installation of bat exclusion shall occur only during the non-maternity season (September 1 to February 14), the year prior to construction. Permanent exclusion can be installed after a qualified biologist has performed emergence surveys to confirm that all bats have been successfully evicted from the structure.

BIO-67. Preconstruction surveys will be conducted by a qualified biologist to identify potential roosting bat activity. The biologist(s) conducting the preconstruction surveys will also identify the nature of the bat use of the area (i.e., no roosting, night roost, day roost, maternity roost). If roosting bat activity is observed during the preconstruction survey process, the following measures will be implemented:

- A focused survey to determine if bats are roosting at the bridges, within suitable culverts, or in suitable trees will be conducted by a qualified biologist before the start of construction activities and before installation of exclusionary devices. Focused surveys at the bridges site will consist of at least two daytime and two dusk surveys.
- If bridge, culvert, and/or tree removal activities are proposed during the
 typical maternal bat roosting season (February 15 to August 31) and
 exclusion has not yet been installed, an additional bat roost survey will be
 conducted by a qualified biologist one week prior to these activities to
 determine the presence/absence of roosting bats. If maternal bat roosts
 are observed, the roost(s) will not be disturbed or obstructed until a
 qualified biologist determines that the roost(s) is no longer being used.
- The roost(s) will be designated as an Environmentally Sensitive Area, and all construction activities shall be avoided within 100 feet until the end of the maternity roosting season (beginning of September) and the qualified biologist confirms that the roost(s) are no longer occupied. No roost exclusion will be conducted if maternity roosts are detected.

Mitigation Measure

BIO-68. Impacts to roosting bats will be compensated through the development and implementation of a Bat Protection and Mitigation Plan in

coordination with the California Department of Fish and Wildlife. Roosting habitat will be created on the new structures. Design components of bat mitigation to be incorporated into structures will be completed between 60 percent and 95 percent designs. The plan will include post-construction monitoring of roosts for five years.

Tricolored Blackbird, Great Blue Heron, Yellow Warbler, Burrowing Owl, and Other Nesting Birds

Avoidance and Minimization Measures

BIO-69. Prior to construction, vegetation removal shall be scheduled to occur from October 1 to January 31, outside of the typical nesting bird season if possible, to avoid potential impacts to nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 30), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than 10 calendar days prior to construction. If an active nest is found, Caltrans shall implement an appropriate buffer or monitoring strategy based on the habits and needs of the species. The buffer area or monitoring strategy shall be implemented until a qualified biologist has determined that juveniles have fledged and are no longer reliant on the nest or nesting activity has otherwise ceased.

BIO-70. During construction, active bird nests shall not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time.

BIO-71. Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around the dripline of trees to be protected within project limits.

BIO-72. All initial clearing/grubbing and vegetation removal shall be monitored and documented by a qualified biologist regardless of time of year.

The following additional avoidance measures shall be implemented for tricolored blackbird:

BIO-73. A qualified biologist will conduct preconstruction surveys for tricolored blackbird in suitable habitats within the project area, within 14 days prior to project commencement. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

BIO-74. If a tricolored blackbird is detected within the project limits or within 250 feet of the construction activities, the qualified biologist will determine whether a nesting colony is present in the area. If nesting tricolored blackbirds are confirmed, the California Department of Fish and Wildlife will be notified,

and a buffer zone for the colony will be defined. No take of tricolored blackbird shall occur.

The following additional measures shall be implemented for burrowing owl:

BIO-75. A qualified biologist will conduct preconstruction surveys for burrowing owl in grassland habitats of the project area, within 30 days prior to project commencement. The biologist will survey for burrows with molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near the burrow entrance and listen for burrowing owl calls. If burrowing owls are confirmed, the California Department of Fish and Wildlife will be notified, and an avoidance buffer zone will be defined. No take of burrowing owls shall occur. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

Cultural Resources

Avoidance and Minimization Measures

ARCH-1. An Environmentally Sensitive Area Action Plan will be prepared prior to project construction. All measures and guidance included in the plan will be complied with.

ARCH-2. All ground disturbance during construction will be monitored by archaeological and tribal monitors.

Geology and Soils

Mitigation Measure

PALEO-1. Caltrans shall retain a Principal Paleontologist that meets Caltrans qualifications to prepare or oversee preparation of a Paleontological Mitigation Plan during the project Plans, Specifications, and Estimates phase once more detailed project plans are available. Elements of the Paleontological Mitigation Plan shall conform to Caltrans guidelines (Standard Environmental Reference, Volume 1, Chapter 8). Paleontological Monitoring during construction may be required as a component of the Paleontological Mitigation Plan.

Greenhouse Gas Emissions

Avoidance and Minimization Measures

GHG-1: Where feasible, schedule truck trips outside of peak morning and evening commute hours. Traffic operations shall specify this in the lane closure charts.

GHG-2: Where feasible, use alternative fuels such as renewable diesel for construction equipment. If use of alternative fuels is not possible, substitute

gasoline-powered equipment for diesel-powered equipment. Comply with Section 3-517- Equipment, of the Construction Manual.

GHG-3: Where feasible, use solar-powered construction equipment.

GHG-4: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction. This information will be shared using a handout. The information in the handout should include, but is not limited to, the following:

- For improved fuel efficiency from construction equipment, maintain equipment in proper tune and working condition, use right sized equipment for the job, and use equipment with new technologies when feasible.
- Limit idling to 5 minutes for delivery and dump trucks and other dieselpowered equipment when not used in active operations.
- Reduce construction waste. For example, reuse or recycle construction and demolition waste. Maximize use of recycled materials in the project construction to the extent feasible, including but not limited to stockpiling pavement grindings for future use, salvaging rebar from demolished concrete, and processing waste to create usable fill (i.e., crushing concrete for aggregate bases). Also see Standard Specifications Section 14-10-Solid Waste Disposal and Recycling.
- Use on-road heavy-duty trucks that meet the California Air Resources Board's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation. See Standard Specifications Section 7-1.02C-Emissions Reduction and comply with Construction Manual Section 7-1.04A (1)- Air Quality.

GHG-5: Reduce the need for transport of earthen materials by balancing cut and fill quantities. See Standard Specifications Section 19-2.03B-Surplus Material.

GHG-6: If feasible, use the accelerated bridge construction method. (Reduces construction windows, uses more precast elements that in turn reduce need for additional falsework, forms, bracing, etc.)

GHG-7: Salvage rebar from demolished concrete, and process waste to create usable fill.

GHG-8: Maximize use of recycled materials in the project construction to the extent feasible.

GHG-9: Recycle existing project features onsite, where feasible.

GHG-10: Reduce construction waste. For example, reuse or recycle construction and demolition waste.

GHG-11: Conserve water during construction, and prioritize the use of recycled water for construction needs. See Standard Specifications Section 10-4-Water Usage.

Hazards and Hazardous Materials

Avoidance and Minimization Measures

HAZ-1.Caltrans Standard Special Provision 14-11.02, which addresses discovery of unanticipated discoveries of contaminated soils and groundwater, should be included in the project bid package so that the District 5 emergency on-call contract can be used in the unlikely event that residual contamination is encountered.

HAZ-2. The appropriate Caltrans Standard Special Provisions for aerially deposited lead soil management will be determined during the project design phase.

HAZ-3. A Lead Compliance Plan will need to be developed for the San Antonio River Bridges and the North Bradley Undercrossing Structure and implemented by the construction contractor and should be included as a bid item.

HAZ-4. A site-specific lead-containing paint/asbestos-containing materials survey and assessment will be completed during the Plans, Specifications, and Estimates phase.

HAZ-5. Standard Special Provision 14-11.14 will be included in the construction contract for proper management and disposal of treated wood waste.

Hydrology and Water Quality

Avoidance and Minimization Measures

See Section 2.1.4 Biological Resources for avoidance, minimization, and mitigation measures for jurisdictional areas.

During construction, effective combinations of temporary and permanent erosion and sediment controls will be used. Storm water management for the site will be coordinated through the contractor with Caltrans construction personnel to effectively manage erosion from the Disturbed Soil Areas by implementing a Storm Water Pollution Prevention Plan. Selected Best Management Practices that will be implemented are listed below. These Best Management Practices are subject to further refinement in the Plans, Specifications, and Estimates phase. Most of these Best Management Practices will be included in the Storm Water Pollution Prevention Plan for the project.

Temporary Soil Stabilization

HYDRO-1. Minimize active disturbed soil areas during the rainy season by using scheduling techniques.

HYDRO-2. Preserve existing vegetation to the maximum extent feasible.

HYDRO-3. Implement temporary protective cover/erosion control on all non-active disturbed soil areas and soil stockpiles.

HYDRO-4. Control erosive forces of storm water runoff with effective storm flow management, such as temporary concentrated flow conveyance devices, earthen dikes, drainage swales, lined ditches, outlet protection/velocity dissipation devices, and slope drains, as determined feasible.

Temporary Sediment Controls

HYDRO-5. Implement linear sediment controls such as fiber rolls, check dams, or gravel bag berms on all active and non-active disturbed soil areas during the rainy season.

HYDRO-6. To further help prevent sediment discharge, stabilize construction site entrances, implement temporary drainage inlet protection, and implement street sweeping and vacuuming.

HYDRO-7. Implement appropriate wind erosion controls year-round.

Non-Storm Water Management

The appropriate non-storm water Best Management Practices will be implemented year-round as follows:

HYDRO-8. Water conservation practices shall be implemented on all construction sites and wherever water is used.

HYDRO-9. Paving and grinding procedures shall be implemented where paving, surfacing, resurfacing, grinding, or saw cutting may pollute storm water runoff or discharge to the storm drain system or watercourses.

HYDRO-10. Follow appropriate procedures and practices designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents to the Resident Engineer.

HYDRO-11. Stockpiling materials, storing equipment and liquid waste containers, washing vehicles or equipment, and fueling and maintaining vehicles and equipment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and inlets if within the

floodplain. The activities must be performed at least 50 feet from the aforementioned areas if outside of the floodplain.

HYDRO-12. Pile driving operations will be considered part of the construction activities.

HYDRO-13. Concrete curing will be used in the construction of structures such as bridges and abutments. Concrete curing includes the use of both chemical and water methods. Proper procedures will minimize pollution of runoff during concrete curing.

HYDRO-14. Since the project involves structure demolition/removal over the San Antonio River, proper procedures will be implemented to minimize pollution during these activities.

HYDRO-15. The following construction site best management practices shall be bid items for this project to ensure they are implemented during construction:

- Job Site Management
- Prepare Stormwater Pollution Prevention Program
- Storm Water Sampling and Analysis Day
- Stormwater Annual Report
- Move In/Move Out (Temporary Erosion Control)
- Temporary Hydraulic Mulch (Bonded Fiber Matrix)
- Temporary Check Dam
- Temporary Drainage Inlet Protection
- Temporary Fiber Roll
- Temporary Large Sediment Barrier
- Temporary Construction Entrance
- Street Sweeping
- Temporary Concrete Washout
- Temporary Fence (Environmentally Sensitive Area type fence)

Supplemental Items

HYDRO-16. Concurrence from Construction regarding the temporary Construction Site best management practices implementation strategy and associated quantities will be obtained during the Plans, Specifications, and Estimates phase.

Maintenance Best Management Practices

HYDRO-17. Continue coordination with Maintenance regarding the incorporation of best management practices. Finalize plan for best management practices prior to construction. Maintenance best management practices may include maintenance vehicle pullouts, access gates and roads, and maintenance worker safety features.

Noise

Avoidance and Minimization Measures

Include the following general measures in the Resident Engineer's binder and implement as appropriate to further minimize temporary construction noise impacts.

- NOI-1. Each internal combustion engine, used for any purpose on the job, or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the job site without an appropriate muffler.
- NOI-2. Notify the public in advance of the construction schedule when construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice shall be given two weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The District 5 Public Information Office posts notice of the proposed construction and potential community impacts after receiving notice from the Resident Engineer.
- NOI-3. Shield especially loud pieces of stationary construction equipment.
- NOI-4. Locate portable generators, air compressors, etc. away from sensitive noise receptors.
- NOI-5. Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.
- NOI-6. Place heavily trafficked areas such as the maintenance yard, equipment, tool, and other construction-oriented operations in locations that would be the least disruptive to surrounding sensitive noise receptors.

NOI-7. Use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators intact and operational. Internal combustion engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.

NOI-8. Consult District noise staff if complaints are received during the construction process.

Appendix C Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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September 2023

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."

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

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) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/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 Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES Director

"Provide a safe and reliable transportation network that serves all people and respects the environment"

List of Technical Studies Bound Separately (Volume 2)

- Visual Impact Assessment
- Air Quality and Noise Technical Assessment Memo
- Water Quality Assessment Report
- Natural Environment Study
- Paleontological Identification Report
- Hazardous Waste Initial Site Assessment
- Location Hydraulic Study, Floodplain Evaluation Report Summary
- Geologic Hazards Report
- Climate Change Report
- **Cumulative Impact Assessment**

The following were also prepared for the project to document cultural resources, but this information is confidential and not available to the public:

- Phase I archaeological survey
- Extended Phase I (XPI) testing
- Phase II evaluation report

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to:

Dianna Beck District 5 Environmental Division California Department of Transportation 50 Higuera Street, San Luis Obispo, California 93401

Or send your request via email to: dianna.beck@dot.ca.gov

Or call: 805-459-9406

Please provide the following information in your request:

Project title: Bradley CAPM project

General location information: On U.S. 101, near Bradley

District number-county code-route-post mile: 05-MON-101-R1.9/R9.7

EA/Project ID number: EA 05-1K880/0519000035