Bradley–San Ardo
Capital Preventive Maintenance (CAPM)

U.S. 101 from Jolon Road to Paris Valley Road/Cattlemen Road
05-MON-101-R9.2/R22.0
Project ID Number 0518000213/EA 05-1K490

Initial Study with Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

April 2024

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. Printed copies of the document are available for review at the Caltrans District 5 Office at 50 Higuera Street in the city of San Luis Obispo, Monday through Friday from 8 a.m. to 5 p.m., and at the San Ardo Branch Library at 62350 College Street in the community of San Ardo, Wednesdays from 1 p.m. to 6 p.m., Thursdays from 2 p.m. to 6 p.m., Fridays from 2 p.m. to 5 p.m., and Saturdays from 11 a.m. to 5 p.m. The document is available online at https://dot.ca.gov/caltrans-near-me/district-5/, and the related technical studies (Volume 2) are available upon request. If you would like to receive a printed version of this document, please contact Matt C. Fowler at 805-779-0793 or by email at: us101_bradley-sanardo_capm@dot.ca.gov

- Tell us what you think. If you have any comments regarding the proposed project, please send your written comments and/or requests for public meetings to Caltrans by the deadline. Submit comments via U.S. mail to: Matt C. Fowler, Environmental Branch Chief, District 5 Environmental Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: us101_bradley-sanardo_capm@dot.ca.gov

- Submit comments by the deadline: June 11, 2024.

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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05-MON-101-R9.2/R22.0
Project ID Number 05-1800-0213
Project EA 05-1K490

Roadway and drainage rehabilitation and infrastructure improvement on U.S. 101 near Bradley and San Ardo, from post miles R9.2 to R22.0 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

Responsible Agency: California Transportation Commission

Jason Wilkinson

Jason Wilkinson
District 5, Deputy District Director, Environmental Analysis
California Department of Transportation
CEQA Lead Agency

4/4/24

Date

The following individual can be contacted for more information about this document:

Matt C. Fowler, Environmental Branch Chief, California Department of Transportation, District 5, 50 Higuera Street, San Luis Obispo, California 93401; phone 805-779-0793, email: us101_bradley-sanardo_capm@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-R9.2/R22.0

EA/Project Number: 05-1K490/05-1800-0213

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate the pavement wear course and 16 drainage culverts on the four-lane divided expressway within a 12.8-mile-long section of U.S. 101 in Monterey County from just south of the Jolon Road intersection near Bradley to the intersection with Paris Valley Road/Cattlemen Road near San Ardo. Improvements would be made through various ways, including diamond grinding, concrete panel replacement, cold planing, asphalt overlay, dig outs, cut and cover, and pipe jacking. Within the project limits, the project would also replace non-standard metal beam guardrail and end treatments, replace sign panels that do not use the Type XI reflective backing, install 14 traffic count stations, install one vehicular detection system, place vegetation-control crushed shale, and construct shoulder backing, where possible.

Determination

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

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

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

In addition, the proposed project would have less than significant effects to aesthetics/visual resources, air quality, geology and soils, greenhouse gas

emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, utilities and service systems, and wildfire.

With the following mitigation measures incorporated, the project would have less than significant effects to biological resources:

- Restoration (reestablishment) of impacted jurisdictional waters is proposed at a 1-to-1 ratio (acreage) for temporary impacts.

- Preconstruction surveys, and if present, capture, relocation, and documentation efforts for the coast horned lizard and San Joaquin coachwhip would be required. Final project plans would 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 Impacts. No vehicle access within the Environmentally Sensitive Areas would be permitted.

- In accordance with the Federal Endangered Species Act and the project's Biological Opinion issued to protect the San Joaquin kit fox, the project would incorporate preconstruction surveys, employee awareness training, speed limitations for work vehicles, litter control, pet and firearm restrictions, pipe inspection and capping, excavation barriers, restoration and revegetation guidelines, and reporting to the U.S. Fish and Wildlife Service.

- In accordance with the Federal Endangered Species Act and the project's Biological Opinion issued to protect the bald eagle, work activities between February 1 and September 1 would be restricted in the area of the known bald eagle nest until a qualified biologist conducts a survey to determine nest activity. Work limitations would be adjusted based upon nest activity and coordination with the U.S. Fish and Wildlife Service. In addition, the measures applicable to all other nesting and migratory birds protected by the Migratory Bird Treaty Act and the California Fish and Game Code would be incorporated to reduce potential impacts to the bald eagle.

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Jason Wilkinson
District 5, Deputy District Director, Environmental Analysis
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) proposes the Bradley-San Ardo Capital Preventive Maintenance (CAPM) project to rehabilitate the roadway pavement on U.S. 101 from post mile R9.2 north to post mile R22.0 in southern Monterey County. Within the project limits, U.S. 101 is a four-lane divided highway with 12-foot-wide travel lanes. The highway profile through the project area follows the terrain of the rolling hills. The posted speed limit is 65 miles per hour. The state highway right-of-way width varies from approximately 200 feet to 680 feet within the project limits. Median width varies from 35 feet to 60 feet, and the existing median is not paved. All roadway shoulders are paved. Inside shoulder width is generally 5 feet, while outside shoulder widths vary from 8 feet to 10 feet within the project limits. Metal beam guardrail is present along the mainline and ramps.

The project is included in the adopted Association of Monterey Bay Area Governments' Metropolitan Transportation Improvement Program for the Federal Fiscal Year 2022-2023 to the Federal Fiscal Year 2025-2026. The project is programmed in the adopted 2024 State Highway Operation and Protection Program and is funded in the Roadway Preservation Program for delivery in Fiscal Year 2027-2028. The current total programmed cost of the project is $59,211,000. This includes $46,931,000 for construction and $171,000 for right-of-way costs and utility verification. The start of construction is expected in December 2027, and the project would occur in stages over the course of one year. Completion is anticipated in December 2028.

Caltrans is the lead agency under the California Environmental Quality Act (known as CEQA). As the lead agency, Caltrans has prepared this Initial Study with Proposed Mitigated Negative Declaration for the project.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to comprehensively address roadway deficiencies within the project limits, with the goals to:

- Restore the ride quality and extend the service life of the existing pavement.

- Protect the embankment from potential slope failure by restoring damaged culverts and modifying or removing dikes where appropriate.
- Improve traffic census station data collection.
- Bring crash safety devices up to current design standards.

1.2.2 Need

The condition of existing features shows the need for rehabilitation, repair, or reconstruction.

- The pavement within the project limits is exhibiting distress and unacceptable ride quality which, if left uncorrected, would continue to deteriorate, leading to more costly reconstruction.
- Culverts have been identified with varying degrees of damage: steel pipe corrosion with holes along the flowline, joint failure, steel bar reinforcement corrosion, and settlement cracks that are undermining supporting soils. If culvert deterioration is not corrected, future roadway failure is possible.
- It is Caltrans policy that all projects conform to the National Intelligent Transportation Systems Architecture and standards in accordance with the requirements. These stations are needed to determine traffic volumes for highway project development and for analyzing, monitoring, and controlling traffic movements.
- Caltrans has adopted the new Manual for Assessing Safety Hardware (MASH) crash testing criteria as its roadside safety hardware standard, which has left many existing roadside safety systems in need of upgrading to the new standards.

1.3 Project Description

The project would improve the ride quality and extend the service life of the roadway and pavement wear course within the 12.8-mile-long section of U.S. 101 in Monterey County from the Jolon Road Overcrossing (at post mile R9.2) near the unincorporated community of Bradley to the Paris Valley Road/Cattlemen Road Overcrossing (at post mile R22.0) near the unincorporated community of San Ardo. See Figure 1.1, Project Vicinity Map, and Figure 1.2, Project Location Map, for illustrations of the project's vicinity and location.

Along the West Coast, U.S. 101 serves as the secondary travel corridor between Los Angeles and San Francisco, with Interstate 5, 40 miles to east, being the primary corridor. Within the project area, the route provides access

between the inland communities of Monterey County and the inland communities of San Luis Obispo County as it crosses through the Salinas River Valley. Project site elevation is generally 500 feet above mean sea level. The corridor is constrained by steep slopes to the west and the Salinas River to east.

Figure 1.1 Project Vicinity Map

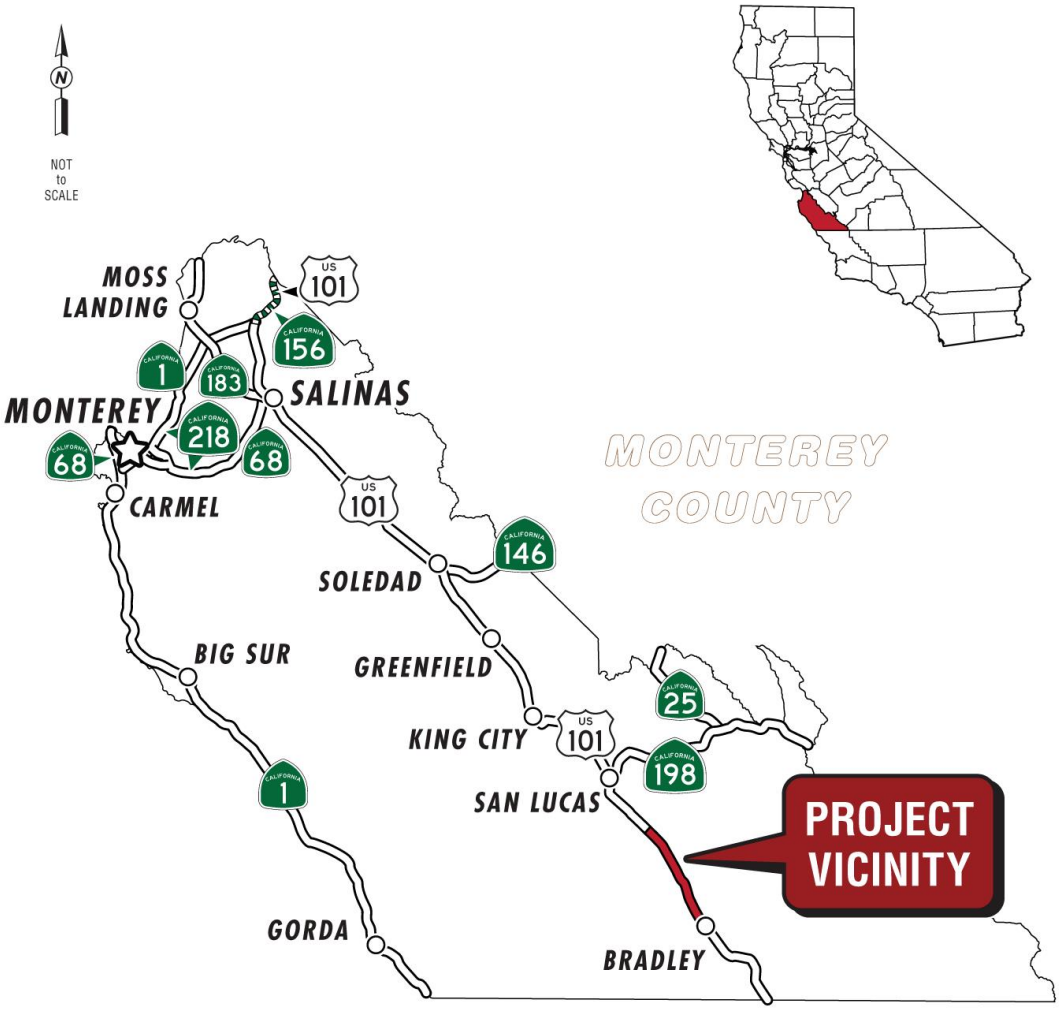
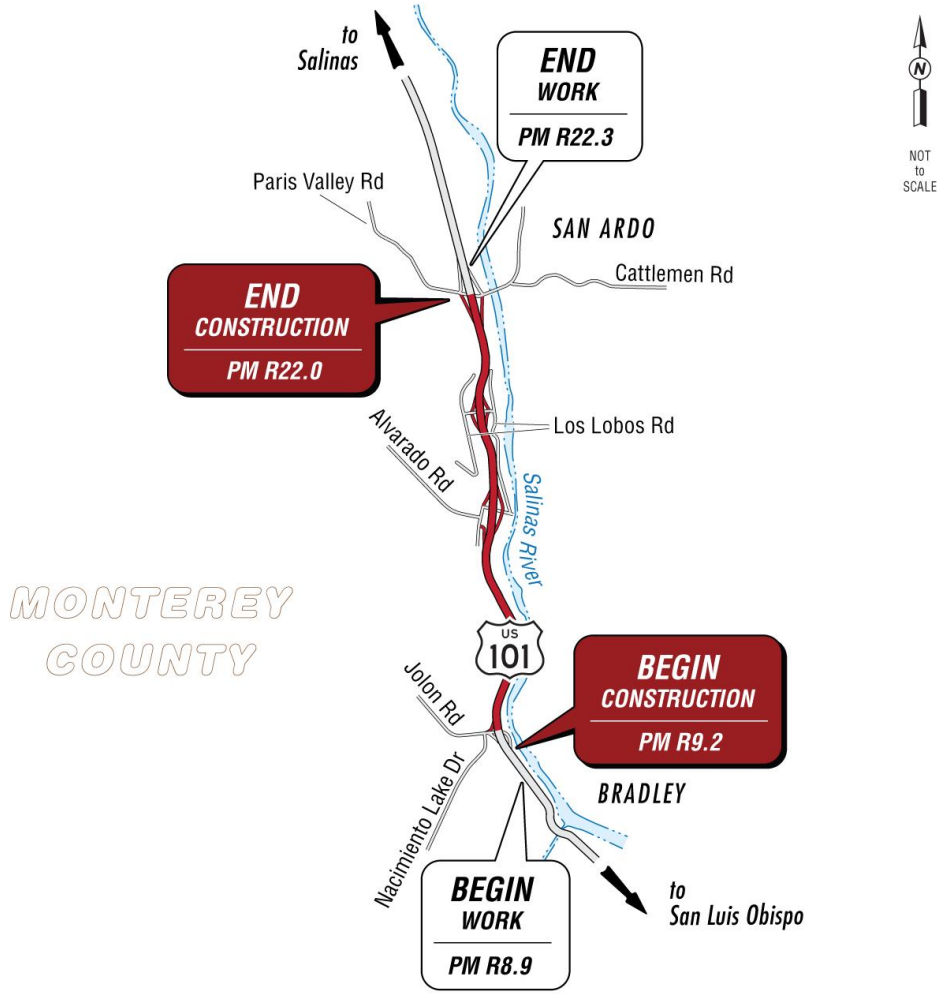


Figure 1.2 Project Location Map



The federal Functional Classification of U.S. 101 is Other Freeway or Expressway, and it is a Federal Aid Primary Route. Within the project limits, the route functions as a freeway. This classification recognizes trip lengths and travel densities indicative of substantial statewide and interstate travel. The U.S. Department of Defense, in cooperation with the U.S. Department of Transportation, has identified U.S. 101 as part of the National Highway System as a Strategic Highway Corridor Network route. This is a network of linked highways deemed essential to national defense for facilitating the movement of troops and equipment to airports, ports, rail lines and military bases.

The project is in a rural area, with a primarily natural resources based and agricultural economy. U.S. 101 is the main transportation route to and through the area for both passenger and commercial vehicles. The nearest alternate routes are State Route 25 via State Route 198, 11 miles to the east, and

State Route 1, 50 miles to the west. Traffic volumes within and near the project limits are generally free flowing and experience minimal congestion. Railroad tracks running parallel to the U.S. 101 right-of-way carry several passenger and freight trains each day. The Transportation Agency for Monterey County serves as Monterey County's regional transportation planning agency and is the state-designated agency responsible for planning and financial programming of transportation projects in the area. Bicycle access is permitted within the project limits from post miles R9.2 to R21.8.

1.4 Project Alternatives

This section describes the proposed action and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are the Build Alternative and the No-Build Alternative.

1.4.1 Build Alternative

The Build Alternative would rehabilitate the pavement wear course on the four-lane divided expressway. The concrete pavement would be rehabilitated by diamond grinding and concrete panel replacement. The asphalt concrete shoulders adjacent to the Portland cement concrete lanes would be cold planed and overlaid with 0.15 to 0.20 foot of rubberized hot mix asphalt. Also referred to as asphalt milling, cold planing is the controlled removal of the surface of the existing pavement to the desired depth, with specially designed equipment to restore the pavement surface to a specified grade and cross slope. The asphalt concrete lanes and the adjacent shoulders would be overlaid with 0.2 foot of rubberized hot mix asphalt. At the interchanges, the overlay would be extended to the end of the ramps. Heavily distressed pavement would be repaired with dig outs. The strategy described below has been developed to capture the different elements affected by the pavement improvements. Preliminary project plans are provided in Appendix B of this document.

Within the project limits, the Build Alternative would also replace non-standard metal beam guardrail and end treatments, replace sign panels that do not use the Type XI reflective backing, rehabilitate 16 drainage culverts at nine locations, install 14 traffic count stations, install one vehicular detection system, place vegetation-control crushed shale, and construct shoulder backing, where possible.

Mainline Improvements

The Build Alternative would diamond grind the northbound lane's concrete pavement from post miles R9.7 to R13.1, from post miles R15.4 to R17.4, and from post miles R19.8 to R21.9. The southbound lane's concrete pavement would be diamond ground from post miles R13.1 to R15.5 and from post miles R16.9 to R21.9. Severely deteriorated Portland cement concrete panels

would be replaced. Inside and outside shoulders adjacent to concrete lanes would be excavated to a depth of 0.3 foot to 0.5 foot and then paved to full depth asphalt concrete.

The northbound lanes would be overlaid with 0.2 feet of rubberized hot mix asphalt from post miles R9.3 to R9.7, from post miles R13.1 to R15.4, and from post miles R17.4 to R19.8. Southbound lanes would be overlaid with 0.2 feet of rubberized hot mix asphalt from post miles R9.7 to R13.1 and from post miles R15.5 to R16.9.

The Build Alternative would use dig outs to fix the pavement at locations with excessive damage. Dig outs are used when the pavement has failed in localized areas to an extent that the underlying support materials have disintegrated, become infiltrated with fine-grained materials, or otherwise lost their load-carrying capacity. Dig outs require the removal and replacement of much (if not all) of the underlying base/sub-base materials. Due to the thorough nature of this method, it has sometimes been referred to as spot reconstruction. The full scope of dig out work would be determined during the project's final design stage.

Ramp Improvements

The Build Alternative would place 0.2 feet of rubberized hot mix asphalt at the following locations:

- Jolon Road northbound and southbound off-ramps and on-ramps from post miles R9.3 to R9.9
- Alvarado Road northbound and southbound off-ramps from post miles R15.3 to R15.7
- Los Lobos Road northbound off-ramp and on-ramp from post miles R17.7 to R18.1

The Build Alternative would cold plane asphalt concrete to a depth of 0.15 feet at the following locations:

- Alvarado Road northbound and southbound on-ramps from post miles R15.1 to R15.7
- San Ardo Undercrossing northbound off-ramp and southbound on-ramp from post miles R15.7 to R22.2

Paving of the gore would occur at the Paris Valley Road northbound off-ramp (post mile R21.8) and southbound on-ramp (post mile R21.9). The gore is defined as the area located between the main roadway and the ramp just beyond where the ramp branches from the main roadway.

Striping and Rumble Strips

The Build Alternative would replace the existing traffic stripe to meet current standards. The existing inside and outside shoulder rumble strips would be ground out as part of the cold plane operations and replaced in kind.

Culvert Improvements

The Build Alternative would rehabilitate 16 drainage culverts at 9 locations within the project limits using the strategies described in Table 1.1.

Table 1.1 Culvert Locations and Anticipated Construction Activities

Culvert Location	Post Mile	Proposed Construction Activities
1	R11.32	Abandon in place the existing 203-foot-long, 24-inch-diameter reinforced concrete pipe. Install a new reinforced concrete pipe in kind using the jack and bore method adjacent to the existing reinforced concrete pipe with additional grading at the inlet. Install a new flared end section at the outlet and a new flared end section at the inlet. The existing reinforced concrete pipe and outlet are approximately 20 feet outside of the state right-of-way under a permanent easement. A 100-foot-by-50-foot (5,000-square-foot) temporary construction easement would be required to access and excavate for jack and bore operations along the northbound lane.
2	R11.42	Remove the existing double-barrel 24-inch-diameter reinforced concrete pipe and replace it in kind with a new reinforced concrete pipe using the open cut and cover trenching method near Node 2. Add shoulder backing and concrete slab to protect the pipe. Install a new double flared end section at the inlet and a new double flared end section at the outlet. A 25-foot-by-50-foot (1,250-square-foot) temporary construction easement would be required for access along the northbound lane.
3	R12.29	Node 1-2: Abandon in place the existing 125-foot-long, 24-inch-diameter reinforced concrete pipe. Install a new reinforced concrete pipe in kind roughly adjacent and parallel to the existing concrete pipe using the jack and bore method. Fix separation at joint. Remove the existing median drainage inlet and replace it with a new drainage inlet in kind. Node 2-3: Abandon in place the existing 95-foot-long, 24-inch-diameter reinforced concrete pipe. Install a new reinforced concrete pipe in kind adjacent and parallel to the existing concrete pipe using the jack and bore method. Remove the existing flared end section at the outlet and replace it with a new flared end section in kind.

Culvert Location	Post Mile	Proposed Construction Activities
4	R12.58	Node 1-2: Remove the existing 78-foot-long, 24-inch-diameter reinforced concrete pipe and replace it in kind with a new reinforced concrete pipe using the open cut and cover trenching method. Remove the existing flared end section at the inlet and replace it with a new flared end section. Protect the existing drainage inlet in place. Node 2-3: Remove the existing 92-foot-long, 24-inch-diameter reinforced concrete pipe and existing 30-feet-long, 24-inch-diameter asphalt coated corrugated steel pipe and replace it with a new 90-feet-long, 24-inch-diameter reinforced concrete pipe using the open cut and cover trenching method. Install a new flared end section at the outlet. A 100-foot-by-50-foot (5,000-square-foot) temporary construction easement would be required for access along the northbound lane.
5	R14.72	Node 1-2: Remove the existing 85-foot-long, 18-inch-diameter corrugated steel pipe and replace it with a new 78-feet-long, 24-inch-diameter reinforced concrete pipe using the open cut and cover trenching method. Node 2-3: Remove the existing 56-foot-long, 18-inch corrugated steel pipe and replace it with a new 73-foot-long, 24-inch-diameter reinforced concrete pipe using the open cut and cover trenching method. Remove the existing drainage inlet and replace it with a new G2 drainage inlet. Install a new flared end section at the outlet.
6	R15.91	Node 1-2: Abandon in place the existing 36-inch-diameter reinforced concrete pipe under the northbound lanes and install a new G2 drainage inlet in the northbound outside shoulder. Using the open cut and cover trenching method, install a new 36-inch-diamter reinforced concrete pipe from the new median GDO drainage inlet to the new G2 drainage inlet in the northbound outside shoulder and then to a new 36-inch-diameter pipe with down-drain joints to the existing energy dissipator. The exact materials for pipe construction would be selected using the Alternative Pipe Culvert Selection in accordance with the procedures and California Test Methods described in Chapter 850 of the Caltrans Highway Design Manual during the project's final design stage. Install a new flared end section and rock slope protection at the outlet. Some grading may be required at the outlet. Install a new flared end section and key in rock slope protection without additional fill at the outlet. Remove two trees at the outlet. Node 2-3: Protect in place the existing headwall at the inlet if there are no issues, like structural damage, et cetera. Abandon in place the existing 36-inch-diameter reinforced concrete pipe under the southbound lanes and install a new reinforced concrete pipe in kind closer to the surface using the open cut and cover trenching method. Remove the existing median GDO drainage inlet and replace it at a shallower depth with a new GDO drainage inlet.

Culvert Location	Post Mile	Proposed Construction Activities
7	R15.98	Node 1-2: Abandon in place the existing 30-inch-diameter reinforced concrete pipe under the southbound lanes and install a new 30-inch-diameter reinforced concrete pipe closer to the surface using the open cut and cover trenching method. Remove the existing median GDO drainage inlet and replace it at a shallower depth with a new GDO drainage inlet. Remove one tree at the inlet. Node 2-3: Abandon in place the existing 30-inch-diameter reinforced concrete pipe under the northbound lanes and install a new G2 drainage inlet in the northbound outside shoulder. Using the open cut and cover trenching method, install a new 30-inch-diamter reinforced concrete pipe from the new median GDO drainage inlet to the northbound outside shoulder G2 drainage inlet and then to a new 30-inch-diameter pipe with down-drain joints to the existing energy dissipator. The exact materials for pipe construction would be selected using the Alternative Pipe Culvert Selection in accordance with the procedures and California Test Methods described in Chapter 850 of the Caltrans Highway Design Manual during the project's final design stage. Install a new flared end section and rock slope protection at the outlet. Some grading may be required at the outlet. Remove one tree at the outlet.
8	R16.49	Remove the existing 156-foot-long, 24-inch-diameter reinforced concrete pipe and replace it in kind with a new reinforced concrete pipe using the open cut and cover trenching method. Protect in place the existing GDO drainage inlet and down-drain connection. Install a new flared end section and key in rock slope protection without additional fill at the outlet. Remove two trees at the outlet.
9	R18.09	Node 2-3: Remove the existing 84-foot-long, 24-inch-diameter corrugated steel pipe that is connected as a dual culvert to an existing 84-foot-long, 24-inch-diameter rock slope protection under the southbound lane and replace it with a new 84-feet-long, 24-inch-diameter reinforced concrete pipe using the open cut and cover trenching method. Install a concrete collar to connect the new reinforced concrete pipe to the existing reinforced concrete pipe culvert after the corrugated steel pipe culvert is removed. Remove the existing double flared end section at the outlet and replace it with a new double flared end section. Protect in place the existing drainage inlet that is attached to the existing reinforced concrete pipe culvert.

Guardrail Improvements

Existing guardrail would be removed and replaced with Midwest Guardrail System features to comply with current standards. The locations and lengths of proposed guardrail replacements are provided in Table 1.2. Changing to Midwest Guardrail System and terminal end features could require widening the fill choker to 4 feet in some locations. Locations where the chokers cannot

be extended would be studied for deep post embedment, cast-in-drilled hole footings, concrete barrier (barrier slab) on cantilever footing or other solutions during the project's final design stage. All end treatments would be replaced with the new Manual for Assessing Safety Hardware-approved end treatments.

Table 1.2 Guardrail Replacement Locations and Lengths

Location	Beginning Post Mile	Ending Post Mile	Linear Feet
Northbound U.S. 101 Inside Shoulder	R9.6	R9.7	275
Northbound U.S. 101 Outside Shoulder	R9.6	R9.7	150
Northbound U.S. 101 Outside Shoulder	R11.3	R11.9	3,540
Northbound U.S. 101 Outside Shoulder	R12.1	R12.3	825
Northbound U.S. 101 Outside Shoulder	R13.0	R13.4	1,975
Northbound U.S. 101 Outside Shoulder	R14.8	R14.8	104
Northbound Alvarado Road Off-ramp Inside Shoulder	R15.4	R15.5	120
Northbound Alvarado Road On-ramp Inside Shoulder	R15.5	R15.5	70
Alvarado Undercrossing Road Inside Shoulder	R15.4	R15.5	620
Northbound U.S. 101 Outside Shoulder	R16.4	R17.2	4,165
Northbound Los Lobos Off-ramp	R17.8	R17.9	140
Los Lobos Undercrossing	R17.8	R17.9	510
Northbound Los Lobos On-ramp	R17.9	R17.9	150
Northbound U.S. 101 Outside Shoulder	R21.9	R22.0	350
Southbound U.S. 101 Inside Shoulder	R9.6	R9.7	150
Southbound Jolon Road On-ramp	R9.6	R9.7	350
Southbound U.S. 101 Outside Shoulder	R10.6	R10.6	150
Southbound U.S. 101 Outside Shoulder	R12.0	R12.0	150
Southbound U.S. 101 Outside Shoulder	R13.1	R13.2	150
Southbound U.S. 101 Inside Shoulder	R13.5	R13.8	1,500
Southbound U.S. 101 Outside Shoulder	R13.7	R14.2	2,350
Southbound Alvarado On-ramp Inside Shoulder	R15.3	R15.3	275
Southbound Alvarado Off-ramp Inside Shoulder	R15.5	R15.5	120
Southbound Los Lobos On-ramp Inside Shoulder	R17.8	R17.9	500
Southbound Los Lobos Off-ramp Inside Shoulder	R17.9	R17.9	150
Southbound U.S. 101 Outside Shoulder	R19.3	R19.4	570

Vegetation control treatment using crushed shale would occur between the edge of pavement and hinge point, where practical and beneficial. Vegetation

control treatment using crushed shale will be applied beneath Midwest Guardrail Systems, signposts, and adjacent to median barriers.

Dike Improvements

Dikes throughout the project limits would be modified to address drainage and to remove high dikes where appropriate. The full extent of dike modification would be determined during the project's final design stage.

Shoulder Improvements

Throughout the project limits, the Build Alternative would place shoulder backing out to 3 feet from the edge of pavement to account for erosion or weathering at the edge of pavement. Shoulder backing is a thin course of granular material that is used to provide support to the pavement edge by preventing edge cracking and pavement edge loss. Shoulder backing also minimizes pavement edge drop-off heights for overlays.

Traffic Management System Improvements

In the southbound lanes north of Jolon Road (at post mile R10.0), the Build Alternative would remove an existing vehicle detection/monitoring system and replace it with an upgraded system in the same location. The Build Alternative would also place 14 census "Sample Count" traffic stations at the locations listed in Table 1.3.

Table 1.3 Traffic Mangement System Improvements

Number of Stations	Post Mile	Location Description
4	9.6	Jolon Road Interchange (Northbound and Southbound On- and Off-ramps)
4	15.4	Alvarado Road Interchange (Northbound and Southbound On- and Off-ramps)
4	17.8	Los Lobos Road Interchange (Northbound and Southbound On- and Off-ramps)
2	22.0	Paris Valley Road Interchange (Northbound Off-ramp and Southbound On-ramp)

Sign Replacement

Existing sign panels not using the Type XI backing material would be replaced. Damaged wood posts would also be replaced.

Utility Relocation

At this time, no utility conflicts or relocations are expected. Pot holing during the project's final design phase would determine the potential for conflict. Where utilities would conflict with construction activities and planned improvements, Caltrans would provide for any State share of utility relocation

and would work closely with the utility providers to facilitate relocation prior to or during construction.

Temporary Construction Activities

Temporary construction activities would include pavement rehabilitation, culvert replacement, infrastructure installation, equipment access, vegetation clearing, staging, and stock piling.

Construction and Demolition Equipment

The following equipment would likely be used during construction:

- Asphalt paver for asphalt delivery and placement.
- Backhoe for various soil manipulation activities.
- Roller paver for roadway construction.
- Bobcat for pavement, earthwork, and clearing and grubbing.
- Bulldozer and front loader for earthwork and clearing and grubbing.
- Cold planer for pavement rehabilitation.
- Compressor for bridge repair.
- Concrete pump for pavement and sidewalk construction.
- Concrete roller screed for pavement construction.
- Concrete truck mixer for pavement, structure, and flatwork construction.
- Concrete saw for pavement construction.
- Dump truck for earthwork and hauling.
- Demolition equipment to remove existing facilities.
- Excavator for soil manipulation.
- Flatbed truck for various construction activities.
- Forklift for various construction activities.
- Grader for ground leveling.
- Haul truck for earthwork, clearing and grubbing, and materials.
- Paint and striping truck for pavement striping and delineation.

- Pump truck for bridge repair.
- Ready-mix concrete truck for concrete delivery.
- Roller and compactor for earthwork.
- Scraper for earthwork and clearing and grubbing.
- Shoulder paver for pavement construction.
- Vacuum sweeper or power broom to clean the roadway.
- Truck with seed sprayer for landscaping and erosion control.
- Water truck for earthwork, dust control, and landscaping.

Project Construction Staging

The Build Alternative would use staging for demolition and construction activities due to the topography of the area and high traffic volumes. Staged construction would attempt to minimize motorist delays, maximize public access to the area, and provide contractors with the basis of the bid. Construction activities for the Build Alternative are expected to take 150 working days over a staged one-year schedule to complete, starting in August 2027.

Construction is anticipated to occur under Standard Temporary Traffic Control Systems. Typical construction staging uses small work areas that are proportionately sized to minimize motorist delays and maximize public access to businesses and residences. Staging would not remain in one location for long but would incrementally progress through the project limits to meet construction needs.

Work areas would be limited to only the necessary space needed to complete the proposed activities, which may also include area for access and equipment staging. This would allow room for two-way traffic flow. As discussed further in this section, traffic control measures would be implemented to temporarily divert traffic out of the work area. When possible, activities would be coordinated to complete all proposed construction within the work area simultaneously or shortly thereafter before moving on to another location.

Nighttime construction work would be required to reduce traffic concerns and to complete the project within the proposed one-year schedule. Multiple work areas may be established at the same time through the project limits, as needed. When using the cut and cover method for culvert rehabilitation, work would occur after traffic control measures are in place. Traffic control measures would be removed after culvert rehabilitation, roadway restoration, and all construction activities are completed, and full operation of the roadway would then be restored. The pipe jacking method would allow for culvert

rehabilitation to occur without roadway excavation and with minimal need for traffic control.

Traffic Control During Construction

The Build Alternative would require short-term shift work windows and long-term construction staging and traffic handling plans. Following a comprehensive analysis during the project's final design stage, a Transportation Management Plan would be developed to reduce traffic flow disruptions to the traveling public. No local roadway or driveway closures would occur. Detour routes for vehicle, bicycle, and pedestrian traffic would be provided as necessary as part of Caltrans standard traffic control and Transportation Management Plan procedures. Community and agency input would be sought on maintaining pedestrian and bicycle access during project construction.

The Resident Engineer for the project would notify and coordinate with regional emergency service providers regarding construction-related activities to ensure that project activities would not restrict or prevent access within the project area. Access for fire/paramedic and other emergency service vehicles through the project limits would be enabled using controlled work zones established by the project's construction contractor. The construction contractor would also ensure that emergency service access to all interconnecting roadways and routes in the project area would not be blocked by construction activities.

Equipment and Material Access and Staging

Staging would occur in closed lanes behind a temporary concrete protective barrier or along the previously disturbed edges of U.S. 101. As detailed in Table 1.4 (Temporary Construction Easements Required), some staging and access would occur within temporary construction easements on adjacent private property. Any fencing that is removed would be replaced as part of the construction contract.

Table 1.4 Temporary Construction Easements Required

Assessor Parcel Number	Purpose for Easement	Estimated Easement Area in Square Feet (in Acres)	Total Parcel Area in Square Feet (in Acres)	Percentage of Total Parcel Area
423-091-01u8	Equipment staging and excess fill material storage at post mile R11.32. Excavation of a receiving pit and equipment and excess fill material storage at post mile R11.42.	7,500 (0.17)	16,753,233 (384.60)	Less than 0.01
423-091-048	Equipment staging and excess fill material storage at post mile R12.58.	5000 (0.12)	1,812,169 (41.60)	Less than 0.01

This project would include 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 Section 1.5 (Standard Measures and Best Management Practices Included in All Build Alternatives).

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, no action would be taken and no improvements would be made. If the rubberized hot mix asphalt overlay is not placed, higher pavement preservation costs and unacceptable ride quality can be expected. Under the No-Build Alternative, severely degraded culverts without the needed improvements would have the potential to erode the embankment, leading to roadside and possibly roadbed failure. The No-Build Alternative would not meet the project's purpose and need and would result in unacceptable roadway conditions and higher preservation costs.

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

Environmentally Sensitive Areas would be delineated on project construction plans to protect and minimize disturbance from construction activities on vegetation and sensitive habitat types within the project's physical impact areas. Temporary fencing (Environmentally Sensitive Area) would be installed before construction to mark the sensitive resource areas to be protected. However, removal of shrubs and trees, as well as vegetation trimming, would be necessary at certain culvert construction areas where access/haul roads

are necessary for construction vehicles and equipment. Replacement of trees and other vegetation would be done as part of the project's avoidance and minimization requirements addressed in Chapter 2.

Construction activities would include rehabilitation of roadway pavement, removal and replacement of culverts, and improvements to roadway infrastructure. Best Management Practices and other Caltrans standard procedures would be implemented for control of stormwater and soil erosion and protection of water quality, both during temporary construction activities and for permanent post-construction conditions. Disturbed areas would be treated with erosion control materials best suited to the project site conditions. Steeper areas exposed to concentrated runoff flows from the highway culverts would receive aggressive erosion control techniques such as netting, fiber rolls, compost socks, and hydroseeding to establish vegetation for long-term minimization of soil erosion.

Caltrans has developed standard measures, standard special provisions, and Best Management Practices that are implemented on all or most Caltrans projects. The following list is relevant to the project:

- **7-1.02A General:** The contractor will comply with laws, regulations, orders, and decrees applicable to the project.
- **7-1.02C Emissions Reductions:** The contractor will submit a certification acknowledging compliance with emissions reduction regulations managed by the California Air Resources Board.
- **7-1.02K(6)(j)(ii) Lead Compliance Plan:** This specification requires the submittal of a plan to document a compliance program to prevent or minimize worker exposure to lead.
- **7-1.02M(2) Fire Protection:** Reserved for development of a fire prevention plan, which will minimize the risk of starting a wildfire during construction.
- **7-1.03 Public Convenience:** The contractor will work to minimize the inconvenience to the public or abutting property owners resulting from construction activities.
- **10-4 Water Usage:** This section includes specifications for the usage and conservation of water during construction.
- **12-1 through 12-7 Temporary Traffic Control:** This section includes general specifications for providing temporary traffic control.
- **13-3 Storm Water Pollution Prevention Plan:** This section includes specifications for preparing a stormwater pollution prevention plan for projects that will disturb 1 acre or more of soil.

- **13-4 Job Site Management:** This section includes specifications for performing job site management work such as spill prevention and control, material management, waste management, non-stormwater management, and dewatering activities.

- **13-5 Temporary Soil Stabilization:** This section includes specifications for placing temporary soil stabilization materials on stockpiles or disturbed soil areas.

- **13-6 Temporary Sediment Control:** This section covers specifications for installing temporary sediment controls, such as check dams and drainage inlet protections.

- **13-9 Temporary Concrete Washouts:** This section covers specifications for installing temporary concrete washouts to receive and dispose of concrete waste.

- **13-10 Temporary Linear Sediment Barriers:** This section covers specifications for installing temporary linear barriers to control sediment.

- **14-1.02 Environmentally Sensitive Area:** Caltrans will mark areas that are environmentally sensitive. These areas cannot be entered unless authorized. If an Environmentally Sensitive Area is breached, work near the area will stop immediately, and the Resident Engineer will be notified.

- **14-2.03 Archaeological Resources:** If archaeological resources are discovered within or near the construction limits, the resources will not be further disturbed, and all work near the discovery will stop immediately. The area will be secured, and the Resident Engineer notified.

- **14-6.03 Species Protection:** This specification includes instructions for the protection of regulated species and their associated habitat, including migratory and nongame birds. If a protected species is discovered, work will stop near the discovery, and the engineer will be notified so that Caltrans biologists could investigate the discovery and take appropriate action.

- **14-7.03 Discovery of Unanticipated Paleontological Resources:** If unanticipated paleontological resources are discovered, the resources will not be further disturbed, and all work near the discovery will stop immediately. The area will be secured, and the Resident Engineer notified.

- **14-8.02 Noise Control:** Noise from work activities will be controlled and monitored. Noise will not exceed 86 decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

- **14-9.02 Air Pollution Control:** The project will comply with applicable air pollution control rules, regulations, ordinances, and statutes.

- **14-10.02 Solid Waste Disposal and Recycling Report:** The types and amounts of solid waste taken to or diverted from landfills or reused on the project will be tracked and reported on each calendar year.

- **14-11.03 Hazardous Waste Management:** This specification outlines the procedures for the handling, storage, transport, and disposal of hazardous waste, which will comply with 22 California Code of Regulations Division 4.5.

- **14-11.04 Dust Control:** Excavation, transportation, and handling of material containing hazardous waste or contamination must result in no visible dust migration. When clearing, grubbing, and performing earthwork operations in areas containing hazardous waste or contamination, a water truck or tank will be provided on the job site.

- **14-11.06 Contractor-Generated Hazardous Waste:** This specification provides instructions to the contractor for the management of hazardous wastes that may be generated during construction, such as petroleum materials, paints, stains, and wood preservatives. Instructions for the management of contaminated soils that may be created due to accidental leaks or spills are also included.

- **14-11.08 For Regulated Material Containing Aerially Deposited Lead:** This specification provides instructions to the contractor for the handling, management, and disposal of regulated material containing aerially deposited lead.

- **14-11.09 For Minimal Disturbance of Regulated Material Containing Aerially Deposited Lead:** This specification is reserved for providing instructions to the contractor for the minimal disturbance of regulated material containing aerially deposited lead.

- **14-11.14 Treated Wood Waste:** Includes specifications for handing, storing, transporting, and disposing of treated wood waste.

- **19-2.03B Surplus Material:** This section requires authorization by Caltrans before disposing of surplus materials or using it for fill.

- **36-4 Residue Containing Lead from Paint and Thermoplastic:** For work involving residue from grinding and cold planing that contains lead from paint and thermoplastic.

- **84-9.03C Remove Traffic Stripes and Pavement Markings Containing Lead:** This specification includes instructions for the removal of yellow traffic stripe if the stripe will be removed using a cold-plane or grinding operation.

- **Transportation Management Plan:** A standard measure implemented on every Caltrans project that prescribes specific lane closures, detour routes, public information programs, and other procedures to manage

traffic flow through project work areas during construction periods. See also Section 1.4.1, Build Alternative, for additional information.

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:

Table 1.5 Permits and Approvals

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Federal Endangered Species Act Section 7 Consultation and Biological Opinion for the San Joaquin kit fox and golden eagle	Section 7 consultation has been completed, and a Biological Opinion was issued on October 17, 2023.
U.S. Army Corps of Engineers	Clean Water Act, Section 404 Nationwide Permit	To be obtained prior to construction.
Regional Water Quality Control Board	Clean Water Act, Section 401 Water Quality Certification	To be obtained prior to construction.
Local Landowners	Temporary Construction Easements	Formal agreements would be drafted after the project is approved.

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 June 9, 2023), 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

Visual Environment

Southern Monterey County and the Salinas Valley area are defined by the broad valley floor with the Santa Lucia Mountains to the west and the Gabilan Mountains to the east. Land use is mostly agricultural with low-growing crops, vineyards, and processing facilities. The Salinas River runs parallel to the highway on the east side with dense riparian vegetation. Low rolling hills are covered with scattered oaks. While Bradley is not visible from the highway due to intervening vegetation, San Ardo contributes to the visual experience along U.S. 101 with its relatively small, compact community. As seen from the highway, the unincorporated community is mostly recognized by the on- and off-ramps associated with its central business district. Some residential areas can also be seen along the highway.

Viewer Sensitivity

Viewers travelling 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 limits; however, the hills west of the Salinas Valley area are a nearby 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 rural development and agriculture, backdropped by scenic hillsides in the Salinas Valley. 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. Overhead utilities, signage, lighting, and other elements are commonly seen throughout the area.

Environmental Consequences

The proposed improvements would cause a minimal, if any, effect on views of scenic vistas in the area. The distant hills and fields would remain visible and would continue to contribute to the scenic vista. The project does not include installation of new, or modification of existing, sources of light.

Implementation of the project would result in visual changes as seen from public viewpoints such as U.S. 101 and some intersecting local streets. An increased visual scale of the highway facility would mostly be the result of the introduction of additional paved surfaces, drainage structures, and slightly taller guardrail. While they would not be unexpected elements in the roadway environment, their 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 trees and vegetation would also result in a somewhat more engineered appearance of the highway facility.

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. The noticeability of the visible drainage elements would be reduced by coloring or staining as well as planting. As a result, the proposed drainage structures would be subordinate to the overall experience of travelling along the highway.

Much of the area in the vicinity of the culverts is vegetated, either with native shrubs and/or trees. The construction of drainage improvements as well as access roads would cause the removal of trees and 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.

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 viewpoints in the area. If noticed, the project would not appear out-of-place with the setting. Measures specifically addressing this visual effect would minimize noticeability of the individual project elements and would further reduce its potential effect on the existing visual character. Impacts to visual resources would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Since impacts to visual resources would be less than significant, mitigation is not proposed. However, the following measures would be included to further reduce effects to visual resources:

- **AES-1:** As much existing vegetation as possible would be preserved. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible would be employed.

- **AES-2:** All disturbed areas would be revegetated with native plant species appropriate to each specific work location.

- **AES-3:** Replacement planting would include aesthetic considerations as well as the inherent biological goals. Revegetation would include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture.

- **AES-4:** All visible concrete drainage elements including but not limited to headwalls, drain inlet aprons, et cetera, would be colored to blend with the surroundings and reduce reflectivity. The specific colors of these concrete elements would be determined by Caltrans District 5 Landscape Architecture.

- **AES-5:** If vegetation control under guardrail is deemed necessary, then a natural material such as shale would be used. The selection of the vegetation control material and/or color would be determined and approved by District 5 Landscape Architecture.

- **AES-6:** Paving beyond the gore would include aesthetic treatment to be determined and approved by District 5 Landscape Architecture.

- **AES-7:** Following construction, the contractor would 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.

Considering the information in the California Department of Conservation's Farmland Mapping and Monitoring Program (dated 2016), the Farmland Map of Northern Monterey County (accessed September 12, 2023. https://montereyco.maps.arcgis.com/apps/webappviewer/index.html?id=9aa9d5bf30904f3c904eb5fe869f62b7), the Monterey County Williamson Act Lands Map, the 2010 Monterey County General Plan, and Title 21 (Zoning) of the

Monterey County Code, 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?	**Less Than Significant Impact**
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**

Affected Environment

Most of the properties adjacent to the project limits are under a Williamson Act land use contract. However, only lands from post mile R17.8 (Los Lobos Road) north to the project end at post mile 22.0 (San Ardo) are designated as Prime Farmland or Farmland of Statewide Importance. Prime Farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. Farmland of Statewide Importance under the Farmland Protection Policy Act is land that meets specific criteria based on the physical and chemical properties of the soils, and the climatic environment of soil occurrence. It has the soil quality, growing season, and moisture supply needed to economically produce sustained yields

of crops when treated and managed, including water management (irrigation and drainage), according to acceptable farming methods.

Properties locally zoned as Farmlands and Permanent Grazing sit along the project limits from project's southern end at post mile R9.2 (Bradley) north to post mile R15.3 (just south of Alvarado Road) and from post mile R17.1 (just south of Los Lobos Road) north to the project's northern end at post mile R22.0 (San Ardo). The purpose of the Farmlands zone district is to preserve and enhance the use of the prime, productive, and unique farmlands in the County of Monterey while also providing opportunity to establish necessary support facilities for those agricultural uses. The purpose of the Permanent Grazing zone district is to preserve, protect, and enhance those productive exclusive grazing lands in the County of Monterey. There is no 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)) within the project limits.

Environmental Consequences

The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the California Department of Conservation's Farmland Mapping and Monitoring Program, to non-agricultural use, since these types of properties would not be affected by temporary construction easements or other project activities. Access for farm laborers and vehicles would be maintained throughout construction.

As listed in Table 2.1 (Temporary Easements on Properties Zoned Farmlands), the project would require up to three temporary construction easements on a total of two properties zoned as Farmlands and ranging in size from 41.60 acres up to 384.60 acres. The temporary easements would occur at the edge of the properties at the base of a slope and would occupy less than 0.01 percent of any affected property.

At all three of the temporary construction easements, excavation for the pipe jacking pit would occur on the west of the northbound travel lanes and within the U.S. 101 right-of-way. Two of the easements (at post mile R11.42 and post mile R12.58) would be needed only for the staging of equipment and storage of excess fill material. At both locations, the receiving pits for pipe jacking would be located within the U.S. 101 right-of-way east of the northbound travel lanes. The easement at post mile R11.32 would be needed to excavate a receiving pit for the new culvert and excess fill material. The staging of equipment and storage of excess fill material would also occur in this easement. Access to all work areas would be taken directly from the U.S. 101 right-of-way. The temporary construction easements would be minimal and limited to the required work area and duration of construction. Any existing fencing would be removed for access but would be replaced in kind

once the work is complete. Temporary fencing would be installed to secure the remainder of the property during construction. Equipment and excess fill material would be removed upon completion of the work. Entry and exit pits for pipe jacking would be filled once the work is complete. Excavation areas would be contoured to match the topography existing before construction. Because excavation would occur only either within the U.S. 101 right-of-way or an existing drainage area, not used for agricultural production, soil replacement would not affect soil viability for agricultural activities.

Table 2.1 Temporary Easements on Properties Zoned Farmlands

Assessor Parcel Number	Purpose for Easement	Estimated Easement Area in Square Feet (in Acres)	Total Parcel Area in Square Feet (in Acres)	Percentage of Total Parcel Area
423-091-018	Equipment staging and excess fill material storage at post mile R11.32. Excavation of a receiving pit and equipment and excess fill material storage at post mile R11.42.	7,500 (0.17)	16,753,233 (384.60)	Less than 0.01
423-091-048	Equipment and excess fill material storage at post mile R12.58.	5,000 (0.12)	1,812,169 (41.60)	Less than 0.01

The southernmost area identified for a temporary construction easement on Assessor Parcel Number 423-091-018 (at post mile R11.32) is used for drainage, and the northernmost area (at post mile R11.42) is used both for drainage and private access along the western edge of the property. Private access throughout the property would remain available because the farm road encircles the parcel. The easement on Assessor Parcel Number 423-091-048 (at post mile R12.58) would occur within an active grazing area. This property is subject to a Williamson Act contract and is under contract as an Agricultural Preserve. According to the terms of the Agricultural Preserve contract, pursuant to the Williamson Act contract to which the property is subject, at least 60 percent of the property needs to remain in production for fiber or animals. The proposed easement on this property would temporarily remove less than 0.01 percent of the parcel from production and would not result in violation of the terms of the existing contract.

Farming activities within the proposed easement areas would be temporarily disrupted. Because the use of these properties would be minimal in area and temporary (for a short duration), the project would not generate impacts resulting in conflicts with existing zoning for agriculture or the conversion of farmland to non-agricultural use. According to Statewide Crop Mapping publishehd by the California Natural Resources Agency (https://data.cnra.ca.gov/dataset/statewide-crop-mapping#), neither of the

affected properties has been used for row crop production in the past 10 years. Both properties are currently and have been historically used for grazing and animal production.

The project would not conflict with existing zoning of, 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)) because these types of properties are not within the project limits. For the same reason, the project would not result in the loss of forest land or conversion of forest land to non-forest use.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are proposed.

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 Chapter 1 of this Initial Study, the project's Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Assessment Memo (dated April 25, 2023), and the Monterey Bay Air Resources District's Guidelines for Implementing the California Environmental Quality Act (2015), the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No 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?	**No Impact**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	**No Impact**

Affected Environment

The project is in the North Central Coast Air Basin, which includes Monterey County, Santa Cruz County, and San Benito County. The Monterey Bay Air Resources District regulates air quality in the North Central Coast Air Basin. This region is considered in attainment for all National Ambient Air Quality Standards. With regard to California Ambient Air Quality Standards, air quality for the region is in a state of poor health because the air basin is in nonattainment for airborne particulate matter less than 10 microns in diameter. However, the air basin is in attainment for all other state air quality standards. Particulate matter (also called particle pollution) is the term for a mix of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can be detected using only an electron microscope.

Environmental Consequences

The project improvements to existing roadway infrastructure would not increase vehicle capacity, increase the number of lanes, or change the alignment of the highway. Therefore, there would be no change in long-term air emissions as a result of the improvements to the project route. Projects that do not further degrade air quality with long-term emissions in the North Central Coast Air Basin are consistent with the Monterey Bay Air Resources District's adopted state air quality attainment goals, as stated in its 2012-2015 Air Quality Management Plan (adopted March 15, 2017).

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other construction-related activities. Emissions from construction equipment also are expected and would include carbon monoxide, nitrogen oxides, volatile organic compounds, directly emitted particulate matter, and toxic air contaminants such as diesel exhaust particulate matter. Nitrogen oxides and volatile organic compounds will react in the presence of sunlight and heat to produce ozone, which is a regional pollutant.

Site preparation and roadway construction typically involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough particulate matter emissions of 10 microns or less in size, particulate matter emissions of 2.5 microns or less in size, and small amounts of carbon monoxide, sulfur dioxide, nitrogen oxides, and volatile organic compounds to be of concern. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on

local streets, which could be an added source of airborne dust after it dries. Particulate matter emissions of 10 microns or less in size would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Particulate matter emissions of 10 microns or less would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the U.S. Environmental Protection Agency to add 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. Standard Specifications (Section 14) on dust minimization require use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction.

In addition to dust-related particulate matter emissions of 10 microns or less in size, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate carbon monoxide, sulfur dioxide, nitrogen oxides, volatile organic compounds, and some soot particulate (particulate matter emissions of 10 microns or less in size and particulate matter emissions of 2.5 microns or less in size) in exhaust emissions. If construction activities were to increase traffic congestion in the area, carbon monoxide and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Sulfur dioxide is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Under California law and Air Resources Board regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 parts per million sulfur), so sulfur dioxide-related issues due to diesel exhaust would be minimal.

Some phases of construction, particularly asphalt paving, may result in short-term odors in the immediate area of each paving site. Such odors would quickly disperse to below detectable levels as distance from the site increases.

Construction is estimated to take 150 working days over a staged, one-year construction schedule and is expected to progress quickly once the construction contract is awarded. Since construction activities would not last for more than 5 years at one general location, construction-related emissions do not need to be included in regional and project-level conformity analysis (40 Code of Federal Regulations 93.123(c)(5)).

Most of the construction impacts to air quality would be of short-term duration and, therefore, would not result in long-term adverse conditions. To minimize dust emissions from the project, Section 14-9.02 (Air Pollution Control) of the 2022 Standard Specifications 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, including those provided in Government Code Section 11017 (Public Contract Code Section 10231). Also, water pollution control measures that cross-correlate with standard dust emission minimization measures such as covering soil stockpiles, watering haul roads, watering excavation and grading areas, and so on would be implemented by the project. Minimal short-term air quality impacts are anticipated because appropriate engineering design and storm water Best Management Practices would be incorporated during construction.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are proposed.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study (dated June 8, 2023) and Jurisdictional Delineation (dated October 31, 2022), 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**
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**

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

The Biological Study Area is the area studied for biological resources and includes the area that may be directly, indirectly, temporarily, or permanently impacted by construction and construction-related activities as well as some adjoining habitats to ensure adequate area has been studied. The Biological Study Area includes an approximately 12.8-mile stretch of U.S. 101 in Monterey County between Bradley and San Ardo.

The Biological Study Area totals approximately 243 acres. It is mostly confined to areas immediately adjacent to highway facilities and ruderal/disturbed habitats (which include the road surface and shoulders) but is expanded in areas surrounding proposed drainage work at nine locations. The limits of the Biological Study Area include the proposed construction work areas, any associated access roads and staging areas, and nearby potential habitat areas. Therefore, the Biological Study Area is somewhat larger than the anticipated construction footprint to ensure evaluation of all potential effects on the biological resources near the project limits.

Special-status species include those 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; or, 4) considered special concern species by the federal government (that is, former U.S. Fish and Wildlife Federal Species of Concern) and the California Department of Fish and Wildlife (that is, California Species of Special Concern), or those that appear on the California Natural Diversity Database (2021) Special Animals List. Sensitive species also include those afforded protection or considered sensitive under various laws (for example, National Environmental Policy Act, California Environmental Quality Act, Migratory Bird Treaty Act) or under sections of the

California Fish and Game Code (for example, nesting birds), and those species 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 the National Environmental Policy Act and California Environmental Quality Act. The known occurrences of sensitive species have been inventoried and mapped, to varying degrees of accuracy, by the California Natural Diversity Database (2022). The search area for this project includes the following U.S. Geological Survey 7.5-Minute Quadrangles: San Ardo, Wunpost, Hames Valley, and Bradley.

Habitats and Natural Communities of Special Concern

Six land cover types and vegetation communities occur in the Biological Study Area of the project: developed/anthropogenic, ruderal, non-native annual grassland, oak woodland, coastal scrub, and waters of the State. Much of the Biological Study Area is developed, including paved highway, gravel shoulders, gore areas, dirt roads, and oil refinery infrastructure totaling approximately 166 acres. The anthropogenic (developed) areas are not included in the natural communities' descriptions below.

The oak woodland community occurs throughout the Biological Study Area and totals approximately 2.65 acres. It is dominated mostly by coast live oak (*Quercus agrifolia*), but occasionally by blue oak (*Quercus douglasii*) and valley oak (*Quercus lobata*), which grow in varying densities. Oak woodlands in the Biological Study Area typically have an understory of poison oak (*Toxicodendron diversilobum*), Italian thistle (*Carduus pycnocephalus*), poison hemlock (*Conium maculatum*), and non-native annual grasses such as ripgut brome (*Bromus diandrus*) and wild oat (*Avena fatua*). Although most areas of the Biological Study Area are disturbed due to the immediate proximity of the highway or surrounding high-intensity land uses, portions of the Biological Study Area are adjacent to the Salinas River corridor or open rangeland. These areas provide moderately suitable habitat for a variety of common wildlife species.

Coastal scrub habitat within the Biological Study Area is most similar to Coyote Brush Scrub/Baccharis pilularis Shrubland Alliance and totals approximately 13.97 acres. In areas mapped as coastal scrub, the habitat is dominated by coyote brush (*Baccharis pilularis*) and includes associated species such as black elderberry (*Sambucus nigra*) and California sagebrush (*Artemisia californica*). Coastal scrub habitat within the Biological Study Area supports moderate quality habitat for various wildlife species.

Non-native annual grassland occupies 10.08 acres of the Biological Study Area. This habitat type is best characterized as "Non-native Grassland" or *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance. It is dominated by introduced annual grasses and weedy herbaceous species. Dominant

species include introduced grasses such as slender wild oat (*Avena barbata*), common wild oat, ripgut brome, soft chess brome (*Bromus hordeaceus*), and red brome (*Bromus madritensis*). Other associate species include red-stemmed filaree (*Erodium cicutarium*), perennial mustard (*Hirshfeldia incana*), English plantain (*Plantago lanceolata*), and tocalote (*Centaurea melitensis*). Small mammals such as California ground squirrel (*Otospermophilus beecheyi*) and Botta's pocket gophers (*Thomomys bottae*) are common in annual grasslands within the Biological Study Area.

Ruderal/disturbed vegetation flanks the edges of the project corridor and vegetated medians throughout the entire Biological Study Area totaling an estimated 50.58 acres. This habitat is dominated by weedy species such as ripgut brome, poison hemlock, perennial mustard, wild oat (*Avena* spp.), Russian thistle (*Salsola tragus*) and tumbleweed (*Salsola tragus*). These areas are subjected to routine disturbance from maintenance and vehicle traffic and have minimal potential to support habitat for sensitive species.

Potential Jurisdictional Areas

Wetlands, Other Waters, and Riparian

Within the approximately 12.8-mile-long project limits, there is only one potential jurisdictional area at post mile R14.72 that may be impacted. An evaluation of wetland parameters indicated that although this location supports invasive wetland facultative vegetation (*Lepidium latifolium*) and wetland hydrology was present, soils did not show any redoximorphic features (evidence of presence of oxidized or reduced zones). Therefore, the location was not considered a three-parameter wetland. No contributing drainage feature could be attributed to the post mile R14.72 culvert conveyance system, and the location lacked evidence of gravel sorting or other indication of regular flows. Also, the surrounding vegetation transitions abruptly to upland ruderal species, so no riparian area was identified. The feature is approximately 5 feet wide, and it extends outside of the right-of-way to the northeast.

Although the delineated feature did not meet the three-parameter wetland criteria, nor did it show evidence of a bed or bank, as noted above, the Porter-Cologne Act defines "waters of the state" very broadly. Therefore, the delineated feature at post mile R14.72 is determined to qualify as a Water of the State under the jurisdiction of the Regional Water Quality Control Board. This feature totals 34 square feet (less than 0.001 acre) within the Biological Study Area.

Special-Status Plant Species

Botanical surveys were conducted within the project's Biological Study Area on July 15, 2021, and during 2022 on March 17, April 8 and 13, and May 20. The California Natural Diversity Database (2022) documents 21 special-status plant species (federally listed, state listed, and/or California Native

Plant Species California Rare Plant Rank of 1B, 2, or 4) as occurring within the search area. 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.

The names and legal status of each of the special-status plant species considered are included in Table 2.2, with a general description of the habitat requirements for each. Also included are determinations whether suitable habitat is present or absent, whether the species is present, and/or whether the project's Biological Study Area is located within a federally designated critical habitat unit. The rationale section summarizes the potential for each species to occur in the project's Biological Study Area or be affected by the project. Where suitable habitat is absent, it is assumed that the species does not occur within the project's Biological Study Area. Where suitable habitat is present, but species were not detected during appropriately timed floristic surveys, it is assumed that the species does not occur within the Biological Study Area of the project.

Table 2.2 Special-Status Plant Species within the Biological Study Area

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Arenaria paludicola	marsh sandwort	Federal Endangered State Endangered California Rare Plant Rank 1B.1	Absent - Suitable habitat is not present. This species was not detected during appropriately timed floristic surveys.
Calycadenia villosa	dwarf calycadenia	California Rare Plant Rank 1B.1	Absent - Suitable habitat consisting of gravely outwashes and rocky fine soils is not present. This species was not detected during appropriately timed floristic surveys.
Camissoniopsis hardhamiae	Hardham's evening-primrose	California Rare Plant Rank 1B.2	Habitat Present - Moderately suitable habitat consisting of sandy cismontane woodland is present. However, this species was not detected during appropriately timed floristic surveys.
Castilleja densiflora variety obispoensis	San Luis Obispo owl's clover	California Rare Plant Rank 1B.2	Absent - Suitable habitat is not present. This species was not detected during appropriately timed floristic surveys.
Caulanthus lemmonii	Lemmon's jewelflower	California Rare Plant Rank 1B.2	Absent - Suitable habitat is not present. This species was not detected during appropriately timed floristic surveys.
Chlorogalum purpureum variety purpureum	Santa Lucia purple amole	Federal Threatened Critical Habitat California Rare Plant Rank 1B.1	Habitat Present - Suitable habitat consisting of mixed oak woodland and grassland habitat is present within the Biological Study Area. However, this species was not detected during appropriately timed floristic surveys.
Chorizanthe pungens variety pungens	Monterey spineflower	Federal Threatened Critical Habitat California Rare Plant Rank 1B.2	Absent - Suitable habitat is not present. This species was not detected during appropriately timed floristic surveys.

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Chorizanthe rectispina	straight-awned spineflower	California Rare Plant Rank 1B.3	Absent - Suitable granite in chaparral habitat is not present. This species was not detected during appropriately timed floristic surveys.
Clarkia jolonensis	Jolon clarkia	California Rare Plant Rank 1B.2	Habitat Present - Suitable woodland habitat is present in the Biological Study Area. However, this species was not detected during appropriately timed floristic surveys.
Collinsia antonina	San Antonio collinsia	California Rare Plant Rank 1B.2	Habitat Present - Suitable woodland habitat is present in the Biological Study Area. However, this species was not detected during appropriately timed floristic surveys.
Collinsia multicolor	San Francisco collinsia	California Rare Plant Rank 1B.2	Absent - Suitable soils and habitat are not present. This species was not detected during appropriately timed floristic surveys.
Delphinium umbraculorum	umbrella larkspur	California Rare Plant Rank 1B.3	Habitat Present - Suitable woodland habitat is present in the Biological Study Area. However, this species was not detected during appropriately timed floristic surveys.
Entosthodon kochii	Koch's cord moss	California Rare Plant Rank 1B.3	Absent - Suitable riverbank bank habitat is not present. This species was not detected during appropriately timed floristic surveys.
Eriastrum luteum	yellow-flowered eriastrum	California Rare Plant Rank 1B.2	Habitat Present - Suitable gravelly woodland habitat is present within the Biological Study Area. However, this species was not detected during appropriately timed floristic surveys.

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Layia heterotricha	pale-yellow layia	California Rare Plant Rank 1B.1	Habitat Present - Suitable habitat is present within the Biological Study Area. However, this species was not detected during appropriately timed floristic surveys.
Malacothamnus abbottii	Abbott's bush mallow	California Rare Plant Rank 1B.1	Absent - Suitable riparian willow scrub habitat is not present. This species was not detected during appropriately timed floristic surveys.
Malacothamnus davidsonii	Davidson's bush-mallow	California Rare Plant Rank 1B.2	Absent - Suitable sandy washes in suitable habitat are not present. This species was not detected during appropriately timed floristic surveys.
Malacothamnus palmeri variety involucratus	Carmel Valley bush-mallow	California Rare Plant Rank 1B.2	Absent - Suitable habitat consisting of talus hilltops and serpentine soils is not present. This species was not detected during appropriately timed floristic surveys.
Navarretia nigelliformis subspecies radians	shining navarretia	California Rare Plant Rank 1B.2	Absent - Suitable vernally wet clay habitat is not present. This species was not detected during appropriately timed floristic surveys.
Navarretia prostrata	Prostrate vernal pool navarretia	California Rare Plant Rank 1B.1	Absent - Suitable alkaline soils or vernal pools are not present. This species was not detected during appropriately timed floristic surveys.
Plagiobothrys uncinatus	hooked popcornflower	California Rare Plant Rank 1B.2	Absent - Suitable sandstone outcrop habitat is not present. This species was not detected during appropriately timed floristic surveys.
Stylocline masonii	Mason's neststraw	California Rare Plant Rank 1B.1	Absent - Suitable habitat is not present. This species was not detected during appropriately timed floristic surveys.

Within the project's Biological Study Area, suitable habitat was present for seven special-status plant species. However, no special-status plant species or designated Critical Habitat for special-status plant species was found during appropriately timed floristic and botanical surveys.

Special-Status Animal Species

Reconnaissance wildlife surveys of the project's Biological Study Area were conducted by Caltrans biologists on July 15, 2021, and during 2022 on March 17, April 8 and 13, and May 20, and on January 24, 2023. The California Natural Diversity Database (2022) documents 24 special-status animal species (federally listed, state-listed, California Fully Protected, Special Species of Concern, California Natural Diversity Database Special Animals, and/or protected by the Migratory Bird Treaty Act and the California Fish and Game Code) occurring in the search area. The official federal species list for the vicinity of the project area, received from the U.S. Fish and Wild Service, included six additional federally listed species.

The names and legal status of each of the special-status animal species are identified in Tables 2.3 through 2.8. Also included are determinations whether suitable habitat is present or absent, whether the species is present, and/or whether the project's Biological Study Area is within a federally designated critical habitat unit.

Table 2.3 Special-Status Animal Species in the Biological Study Area (Invertebrates)

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Branchinecta lynchi	vernal pool fairy shrimp	Federal Threatened Critical Habitat	Absent - Suitable vernal pool habitat is not present. This species was not detected during reconnaissance wildlife surveys.
Danaus plexippus	monarch butterfly	Federal Candidate California Natural Diversity Database Special Animals List	Absent - Suitable overwintering grove habitat is not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.

Table 2.4 Special-Status Animal Species in the Biological Study Area (Fish)

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Lavinia exilicauda harengus	Monterey hitch	California Species of Special Concern	Absent - Suitable aquatic habitat for Monterey hitch is not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.
Oncorhynchus mykiss irideus	steelhead - South-Central California Coast Distinct Population Species	Federal Threatened Critical Habitat California Natural Diversity Database Special Animals List	Absent - Suitable aquatic habitat for steelhead is not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.

Table 2.5 Special-Status Animal Species in the Biological Study Area (Amphibians)

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Rana draytonii	California red-legged frog	Federal Threatened Designated Critical Habitat California Species of Special Concern	Absent - Suitable habitat is not present. The project is limited mostly to the pavement and shoulder. In specific areas where culvert repairs occur, the drainage systems convey roadside runoff surrounded by ruderal vegetation and little to no cover. No suitable breeding habitat with the presence of surface water through early June is present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.
Rana boylii	foothill yellow-legged frog	Federal Endangered California Species of Special Concern	Absent - Suitable habitat is not present. The project is limited mostly to the pavement and shoulder. In specific areas where culvert repairs occur, the drainage systems convey roadside runoff surrounded by ruderal vegetation and little to no cover. This species was not detected during reconnaissance wildlife surveys.
Spea hammondii	western spadefoot	Federal Proposed Threatened California Species of Special Concern	Absent - Suitable vernal pools or other ephemeral pool habitats were not observed within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.

Table 2.6 Special-Status Animal Species in the Biological Study Area (Reptiles)

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Anniella pulchra	Northern California legless lizard	California Species of Special Concern	Absent - Suitable habitat consisting of sandy soils with high moisture content is not present. This species was not detected during reconnaissance wildlife surveys.
Emys marmorata	western pond turtle	Federal Proposed Threatened California Species of Special Concern	Absent - Suitable pond, marsh, and stream habitat for the western pond turtle is not present. This species was not detected during reconnaissance wildlife surveys.
Masticophis flagellum ruddocki	San Joaquin coachwhip	California Species of Special Concern	Habitat Present - Suitable dry, open habitat with ground squirrel burrows is present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys; however, presence is assumed.
Phrynosoma blainvillii	coast horned lizard	California Species of Special Concern	Habitat Present - Suitable sandy soils with scattered shrub habitat for the coast horned lizard are present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys; however, presence is assumed.

Table 2.7 Special-Status Animal Species in the Biological Study Area (Birds)

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Agelaius tricolor	tricolored blackbird	Migratory Bird Treaty Act California Species of Special Concern	Absent - Suitable freshwater ponds or marshes with wetland vegetation for cover are not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.
Aquila chrysaetos	golden eagle	Bald and Golden Eagle Protection Act Migratory Bird Treaty Act Federal Protected California Department of Fish and Wildlife Watch List	Absent - Suitable nesting habitat for golden eagles is not present within the Biological Study Area. Golden eagles were seen soaring over the Biological Study Area during reconnaissance wildlife surveys since suitable foraging habitat is present in adjacent canyons and the general vicinity of the Salinas River corridor.
Athene cunicularia	burrowing owl	Migratory Bird Treaty Act California Species of Special Concern	Habitat Present - Marginally suitable habitat for the burrowing owl is present within the Biological Study Area in open grasslands with small mammal burrows. This species was not detected during reconnaissance wildlife surveys, but presence is assumed.
Coccyzus americanus	yellow-billed cuckoo	Federal Threatened State Endangered	Absent - Suitable dense riparian habitat for yellow-billed cuckoo is not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.
Empidonax traillii extimus	Southwestern willow flycatcher	Federal Endangered Migratory Bird Treaty Act State Endangered Critical Habitat	Absent - Suitable marshes and riparian habitat for the southwestern willow flycatcher are not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Gymnogyps californianus	California condor	Federal Endangered Migratory Bird Treaty Act State Endangered Critical Habitat State Fully Protected	Absent - Suitable nesting habitat for the California condor is not present within the Biological Study Area. Foraging habitat is present in areas surrounding the Biological Study Area, but the highway system does not provide suitable habitat for the condor. This species was not detected during reconnaissance wildlife surveys.
Haliaeetus leucocephalus	bald eagle	Bald and Golden Eagle Protection Act Migratory Bird Treaty Act Federal Delisted State Endangered State Fully Protected	Habitat Present - Although typical nesting habitat for bald eagles is not present within the Biological Study Area, a known bald eagle nest is located within approximately 700 feet of the Biological Study Area along the Salinas River. Bald eagles were seen soaring over the Biological Study Area on several site visits. Species presence within the Biological Study Area is assumed.
Setophaga petechia	yellow warbler	Migratory Bird Treaty Act California Species of Special Concern	Absent - Suitable riparian habitat for the nesting yellow warbler is not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.
Vireo bellii pusillus	least Bell's vireo	Federal Endangered Migratory Bird Treaty Act State Endangered Critical Habitat	Absent - Suitable riparian scrub habitat for the least Bell's vireo is not present within the Biological Study Area. Suitable habitat may be present nearby along Salinas River; however, the project would not impact the Salinas River or its associated riparian habitat. This species was not detected during reconnaissance wildlife surveys.

Table 2.8 Special-Status Animal Species in the Biological Study Area (Mammals)

Scientific Name	Common Name	Status	Species and Habitat Presence in the Biological Study Area - Determination Rationale
Corynorhinus townsendii	Townsend's big-eared bat	California Species of Special Concern	Absent - Suitable roosting habitat for Townsend's big-eared bat is not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.
Antrozous pallidus	pallid bat	California Species of Special Concern	Absent - Suitable roosting habitat for the pallid bat is not present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys.
Perognathus inornatus psammophilus	Salinas pocket mouse	California Species of Special Concern	Habitat Present - Moderately suitable annual grassland habitat for the Salinas pocket mouse is within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys, but presence is assumed.
Taxidea taxus	American badger	California Species of Special Concern	Habitat Present - Moderately suitable annual grassland habitat for the American badger is present within the Biological Study Area. Although the species was not observed during surveys, sign (claw marks) were detected at ground squirrel burrows within the Biological Study Area.
Vulpes macrotis mutica	San Joaquin kit fox	Federal Endangered State Threatened	Habitat Present - Moderately suitable annual grassland habitat for the San Joaquin kit fox is present within the Biological Study Area. This species was not detected during reconnaissance wildlife surveys, but presence is assumed.

Suitable habitat for seven special-status animal species was found during wildlife surveys. No designated Critical Habitat for special-status animal species was found. Special-status animal species with the potential to be found within the Biological Study Area during construction are discussed below.

San Joaquin Coachwhip and Coast Horned Lizard

The San Joaquin coachwhip and coast horned lizard are addressed together in this section because they have similar habitat requirements. None of the species listed in this section were detected during surveys, but suitable habitat is present within the Biological Study Area.

Suitable open arid plant communities with little or no tree cover are present in the Biological Study Area for the San Joaquin coachwhip. The nearest documented San Joaquin coachwhip occurrence is 2.5 miles southeast of the Biological Study Area near San Antonio Drive and U.S. 101, south of the town of Bradley. Coachwhips have large ranges, and individuals may occur within the Biological Study Area.

Suitable habitat for the coast horned lizard is present in coastal scrub habitat within the Biological Study Area. Due to the adjacent oil fields and extensive cultivation of land surrounding the northern portion of the Biological Study Area, it seems likely that coast horned lizard populations are fragmented so that they have been unable to persist in most of the region adjacent to U.S. 101. Nevertheless, large open swaths of habitat are present in some areas west of the Biological Study Area and in the sandy washes of the Salinas River floodplain east of the Biological Study Area. The nearest California Natural Diversity Database occurrence is along San Antonio River on Camp Roberts property about 3.4 miles south of the Biological Study Area.

San Joaquin Kit Fox

No San Joaquin kit foxes or signs of the species were observed within the Biological Study Area during surveys for the project. Within the four-quadrangle search area for this project, the California Natural Diversity Database has 38 records of the San Joaquin kit fox. One occurrence from 1975 overlaps the Biological Study Area in the vicinity of Los Lobos Road, and several other occurrences from 1975 are in very close proximity to the Biological Study Area.

A 5-year review of the San Joaquin kit fox indicated that some of the satellite populations in the Salinas Valley area appear to have become locally extirpated (eliminated), including subpopulations at Camp Roberts military reserve, as well as at Fort Hunter Liggett military reserve, Pixley National Wildlife Refuge, and San Luis National Wildlife Refuge. At Fort Hunter Liggett, no San Joaquin kit foxes have been observed since 2000.

Many records of the San Joaquin kit fox have been documented on the Camp Roberts military reserve near the Biological Study Area. However, the most recent data indicate the resident group has been extirpated. Disease and predation may have both contributed to the catastrophic decline in the satellite population of San Joaquin kit fox at Camp Roberts. Kit fox captures decreased from 103 in 1988 to 20 in 1991, and further to only 3 in 1997. Potential causes of decline included increased prevalence of rabies, limited recruitment of young and the presence of relatively high numbers of other predators and competitors, including the red fox and the coyote. Between 1997 and 2000, no San Joaquin kit foxes were seen or captured in the developed areas of the camp, and only one observation of a single kit fox has occurred in the Camp Roberts area since 2002. A single San Joaquin kit fox, likely a migrant, was observed in June 2007 by a Camp Roberts staff member during night surveys, not far from the road. Subsequent surveys and trapping attempts were unsuccessful at locating the individual.

No evidence of kit foxes was observed within or adjacent to the Biological Study Area. Spotlighting surveys were not conducted. Small mammal burrows were noted during surveys, but none were observed that were large enough to meet the U.S. Fish and Wildlife Service size criteria for potential use by a kit fox, and no evidence of denning was observed within the Biological Study Area. Due to the historic occurrences of kit foxes in the area, potential presence of the San Joaquin kit fox within the project site during construction is assumed.

Burrowing Owl, Salinas Pocket Mouse, and American Badger

The American badger, Salinas pocket mouse, and burrowing owl are addressed as a group in this section because they have similar habitat requirements. The Biological Study Area provides marginally suitable habitat for these three special-status species. It is unlikely that these species would den onsite, but they may occur as a transient during foraging activities.

No potential badger dens were observed within the Biological Study Area during reconnaissance wildlife surveys. However, ground squirrel holes with badger claw marks were observed within the Biological Study Area near post miles R12.29 and R12.58. Although no burrows capable of supporting badgers were observed within the Caltrans right-of-way, the adjacent property to the northeast of post miles R12.29 and R12.58 has an expanse of annual grassland suitable for foraging and denning by the American badger. Similar suitable annual grassland is present east of post miles R11.32 and R11.42. Potential presence of the American badger within the project site during construction is assumed.

No small mammal trapping was conducted for this project. The Salinas pocket mouse was not observed during reconnaissance wildlife surveys in years 2021 and 2022. However, potential presence of the Salinas pocket mouse within the project site during construction is assumed.

Open grassland habitat suitable for nesting burrowing owls is present on private property adjacent to the Biological Study Area at post miles R11.32, R11.42, R12.29, and R12.58. However, no burrowing owl sign was observed at ground squirrel burrows within the Biological Study Area. Protocol-level surveys for the burrowing owl were not conducted, and burrowing owls were not observed in the Biological Study Area during reconnaissance wildlife surveys. However, potential presence of the burrowing owl within the project site during construction is assumed.

Bald Eagle

Bald eagles were observed soaring in the vicinity of the Biological Study Area during several site visits in 2022. A known bald eagle nest is present within 700 feet of the Biological Study Area. The nest is in a sycamore tree along the riparian border of Salinas River and is visible from the Jolon Road northbound off-ramp. The status of the nest in 2022 is not documented but, according to Ventana Wildlife Society, the nest has been active in recent years. Caltrans Biologists Amy Millan and Audrey Weichert monitored the nest from the Caltrans right-of-way on January 24, 2023, to observe whether there was any early nesting activity at the site. Although no bald eagles were observed on the nest during the visit, an individual was perched on the top of the nest tree when surveyors arrived. Also, a pair of bald eagles was perched in a nearby tree approximately 500 feet upstream of the nest tree. The nest is presumed to still be active.

Other Nesting and Migratory Birds

Cliff swallows (*Petrochelidon pyrrhonota*) were observed nesting on several overpass bridges and an underpass within the Biological Study Area. Common birds observed within the Biological Study Area included species such as the California scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), Eurasian starling (*Sturnus vulgaris*), and house finch (*Haemorhous mexicanus*). Potential nesting habitat for bird species occurs in shrubs and trees throughout the Biological Study Area.

Migratory Fish and Wildlife Corridors

The Salinas River riparian area is an important natural corridor for wildlife movement that runs parallel to, and on the east side of, the proposed project. The project will not impact the Salinas River. Post miles R9.6 through R13.5 are mapped as Connectivity Rank 5 (Irreplaceable and Essential) in the Terrestrial Connectivity Areas of Conservation Emphasis (ACE). Post miles R13.5 through R21.9 are mapped as Connectivity Rank 4 (Conservation Planning Linkages) and are within the Pancho Rico Valley-Los Padres National Forest Essential Connectivity Area.

Regional Habitats of Concern

Within the search area, the California Natural Diversity Database (2022) documents Sycamore Alluvial Woodland as a regional habitat of concern that

is considered sensitive. Also, the California Department of Fish and Wildlife's Classification and Mapping Program (VegCAMP) was also referenced for regional habitats of concern. The Sycamore Alluvial Woodland habitat type occurs within the Salinas River floodplain. However, it is not present within the Biological Study Area. Therefore, the project would not impact Sycamore Alluvial Woodland.

Invasive Species

A total of 18 invasive plant species identified by the online California Invasive Plant Council (Cal-IPC) Database (2022) were observed within the Biological Study Area for the project. Table 2.9 (Invasive Plants within the Biological Study Area) lists the invasive species found within the Biological Study Areas and their Cal-IPC invasiveness rating. The distribution of invasive plant species is scattered throughout the Biological Study Area and is most common in ruderal/disturbed areas along the edges of U.S. 101.

Table 2.9 Invasive Plants within the Biological Study Area

Scientific Name	Common Name	Cal-IPC Status1
Bromus hordeaceus	soft chess brome	Limited
Marrubium vulgare	horehound	Limited
Medicago polymorpha	California burclover	Limited
Plantago lanceolata	English plantain	Limited
Rumex crispus	curly dock	Limited
Salsola tragus	tumbleweed	Limited
Schinus molle	Peruvian pepper tree	Limited
Ailanthus altissima	tree of heaven	Moderate
Avena barbata	slender wild oat	Moderate
Avena fatua	wild oat	Moderate
Bromus diandrus	ripgut grass	Moderate
Carduus pycnocephalus	Italian thistle	Moderate
Centaurea melitensis	tocalote	Moderate
Conium maculatum	poison hemlock	Moderate
Festuca perennis	rye grass	Moderate
Hirschfeldia incana	perennial mustard	Moderate
Hordeum murinum	wall barley	Moderate
Lepidium latifolium	perennial pepperweed	High

Environmental Consequences

Potential project impact areas were determined from the preliminary design plans during the Project Approval and Environmental Document phase of project development. A subset area, referred to as the Area of Potential Impact, within the larger Biological Study Area of the entire project was estimated. The Area of Potential Impact is defined as all areas that may be impacted by project activities. The Area of Potential Impact was used to determine potential direct and indirect (proximate) physical effects on biological resources.

The project would cause temporary and permanent impacts to biological resources in the Area of Potential Impact from the rehabilitation of pavement and drainage systems infrastructure. Temporary impacts would occur from the use of construction equipment, the creation and use of vehicle staging areas and dirt access roads to work sites, and from vegetation trimming and removal. Sources of impacts would be from construction equipment activities and worker foot traffic. The following discussions address potential impacts of the project upon specific categories of biological resources in the project's Biological Study Area.

Habitats and Natural Communities of Special Concern

Estimated permanent and temporary impacts to habitats and natural communities of special concern are quantified in Table 2.10 (Impacts to Natural Communities/Habitats).

Table 2.10 Impacts to Natural Communities/Habitats

Natural Community/Habitat	Permanent Impacts in Square Feet (Acre)	Temporary Impacts in Square Feet (Acre)
Non-native Annual Grassland	0.0 (0.0)	439,041 (10.079)
Ruderal/Disturbed	0.0 (0.0)	2,203,395 (50.582)
Coastal Scrub	0.0 (0.0)	608,446 (13.968)
Oak Woodland	0.0 (0.0)	115,608 (2.654)
Waters of the State (Regional Water Quality Control Jurisdictional Area)	0.0 (0.0)	34 (less than 0.001)

Impacts have been quantified based on estimated ground disturbance, disturbed vegetation, et cetera. These impact areas are represented as the Area of Potential Impact, which was overlain with habitat mapping and jurisdictional determination mapping in ArcMap Geographic Information System software to quantify project impacts.

Project work would/ occur mostly along the paved travel way and would not extend beyond 10 feet of the existing pavement, except in specified culvert

locations. The proposed shoulder backing would be placed primarily in areas where shoulder backing application and ongoing maintenance have occurred before. Improvements to guardrail and end treatments would be localized and only a few feet off of the paved surface in most places. Ground disturbance from anchor blocks, piles, guardrail upgrades and end treatments would be isolated and contained within the right-of-way and within 10 feet from the paved highway.

Up to six native trees would likely be removed in upland areas for work related to culvert replacements. Caltrans landscaping would replace trees removed at a 3-to-1 ratio. Temporary impacts would be mostly from equipment access, clearing vegetation, staging, and stock piling. The Monterey County Zoning Ordinance (Chapter 16.60, Title 16) allows for the removal of trees by government agencies within public rights-of-way. Therefore, the project would not conflict with any local policies or ordinances protecting trees.

Sources of impacts would be mostly from the use of construction equipment and associated worker foot traffic. Trucks, bulldozers, backhoes, compactors, asphalt concrete rollers, clamshells, excavators, compressors, pavers, water trucks, sweepers, and any other equipment necessary in the course of 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.

No impacts to waters of the U.S. or riparian areas would occur for this project. Approximately 0.001 acre (34 square feet) of waters of the State would be temporarily impacted at post mile R14.72 during replacement of the culvert system at that location. Permanent impacts to waters of the State are not anticipated. Areas of temporary impact would be restored at a 1-to-1 ratio (acreage), while compensatory mitigation for permanent impacts to jurisdictional areas is proposed at a 3-to-1 ratio (acreage), should they occur.

Potential Jurisdictional Areas

Estimates of impacts to jurisdictional waters and other upland habitats are presented in Table 2.10 (Impacts to Natural Communities/Habitats). 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 only from the proposed culvert replacement at post mile R14.72.

Permanent impacts to jurisdictional features are not anticipated. Temporary impacts to jurisdictional features would occur due to temporary access and in-kind culvert replacement operations. A total of approximately 34 square feet (less than 0.001 acre) of Regional Water Quality Control Board jurisdictional waters of the State may be temporarily impacted. Implementation of the project would require a Regional Water Quality Control Board Waste Discharge

Permit. The project would include measures to reduce impacts to Environmentally Sensitive Areas through the placement of high visibility fencing, implementation of Waste Discharge Permit terms and conditions, seasonal work restriction, limitations on select construction activities, placement of erosion control, and conformance to Best Management Practices. Also, mitigation for the restoration of temporary impacts at a 1-to-1 ratio (acreage) would be included. Therefore, the project would have less than significant impacts to jurisdictional waters with the incorporation of mitigation.

Special-Status Plant Species

The project is not anticipated to impact any special-status plant species. Although the Biological Study Area supports suitable habitat for several special-status plant species, none were observed during appropriately timed floristic surveys, and none are expected to occur within the Biological Study Area during construction. Of the federally listed plant species included in Table 2.2, the Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on the marsh sandwort (*Arenaria paludicola*) and purple amole (*Chlorogalum purpureum*). Therefore, no impacts to special-status plant species would occur.

Special-Status Animal Species

San Joaquin Coachwhip and Coast Horned Lizard

Project construction could result in the injury or death of the San Joaquin coachwhip and coast horned lizard (if present) during clearing and grubbing operations in the areas surrounding 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 death 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 are likely transient in the Biological Study Area, they were not detected during surveys, and habitats bordering the highway are marginally suitable. The project impacts to the San Joaquin coachwhip and coast horned lizard, should these species occur within the work zone, would be less than significant with mitigation incorporated. Avoidance and minimization measures would be implemented as mitigation to further reduce potential impacts and would include preconstruction surveys and the designation of Environmentally Sensitive Areas.

San Joaquin Kit Fox

Although the Biological Study Area supports a prey base and connects to extensive suitable habitat, it provides only marginal habitat for the San Joaquin kit fox because it is next to the busy highway (U.S. 101). 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 project may affect, but is unlikely to adversely affect, the San Joaquin kit fox. The basis for this determination is that San Joaquin kit foxes have not been observed in the project vicinity in recent years and the project would implement standardized recommendations as mitigation measures to protect the species during construction. These measures would require onsite education programs, speed limits, litter control, material and equipment inspections, restoration and revegetation work, and preconstruction surveys for species presence and natal dens. On October 17, 2023, the U.S. Fish and Wildlife Service issued a Biological Opinion for the project's potential impacts to the San Joaquin kit fox. The Biological Opinion noted the agency's concurrence with the Section 7 effects determination and proposed measures for this species. Potential project impacts to the San Joaquin kit fox would be less than significant with mitigation.

American Badger, Salinas Pocket Mouse, and Burrowing Owl

If present during construction, the American badger, Salinas pocket mouse, and/or burrowing owl could be directly impacted by project activities. Any of the three 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.

Potential impacts to the American badger, Salinas pocket mouse, and burrowing owl would be less than significant with the incorporation of mitigation. Avoidance and minimization measures proposed for the San Joaquin kit fox are included as mitigation to reduce potential impacts to the American badger, Salinas pocket mouse, and burrowing owl. All three species would be included in environmental education materials. Additional measures are recommended for the burrowing owl, including preconstruction surveys, monitoring, and buffers for active burrows, if found.

Bald Eagle

Overlay work is proposed at the Jolon Road interchange area (post miles R9.6 through R10.6), which is about 700 feet from a known bald eagle nest. Overlay work would involve equipment and activity such as a 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. Also, there is no drainage work or staging proposed in the vicinity of the known nest.

Caltrans submitted the project's description, mapping, and proposed avoidance measures to the U.S. Fish and Wildlife Service for review as part of technical assistance. In response, a Biological Opinion (dated October 17, 2023) regarding bald eagles was issued by the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service concurred with the project's proposed protection measures. During the recent consultation, 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's Area Potential Impact is just over 700 feet from the nest. This indicates that project activities would be far enough away from the known nest to avoid disturbance.

With implementation of avoidance and minimization measures as mitigation, the project would not result in take of the bald eagle. These measures would include preconstruction surveys, limitation of construction activities near active nests, and consultation with the U.S. Fish and Wildlife Service to determine if additional protective actions are required.

Other Nesting and Migratory Birds

Cliff swallow colonies were seen nesting on the overcrossing bridges for Alvarado Road and Los Lobos Road, and the undercrossing bridge at Paris Valley Road within the Biological Study Area. Although no other active bird nests were found in the Biological Study Area during surveys, potential nesting habitat for a variety of bird species occurs throughout the Biological Study Area. Direct impacts to nesting birds could result if removal of vegetation occurs during the nesting season. These direct effects would result in the injury or death of nesting birds or harassment that could alter nesting behaviors. Indirect impacts could also result from noise and disturbance associated with construction, including pavement activities near overcrossings where cliff swallows are present, during the nesting season, which could alter nesting behaviors. Potential impacts to other nesting and migratory birds would be less than significant with the incorporation of mitigation. The implementation of preconstruction nesting surveys and buffer exclusion zones (if necessary) as avoidance and minimization measures would reduce the potential for adverse effects to other nesting and migratory birds. Restoration replacement plantings for temporary impacts to jurisdictional areas within the project limits would also minimize potential impacts.

Invasive Species

Ground disturbance and other aspects of project construction could potentially spread or introduce invasive species within the Biological Study Area. Invasive plant species are 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. Environmentally Sensitive Area fencing would be installed throughout areas of the project to limit construction activities and protect habitats of concern, individual trees, and sensitive species. Construction equipment would be inspected and washed to ensure that invasive species are not spread. Only clean fill, free of invasive species, would be imported to the project site. Potential impacts resulting from the introduction and spread of invasive species would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Jurisdictional Areas

The following measures would be implemented as avoidance and minimization and compensatory mitigation to reduce the potential impacts to jurisdictional areas resulting from the project:

- **BIO-1:** Prior to construction, Caltrans would obtain a Waste Discharge Permit from the Regional Water Quality Control Board. All permit terms and conditions would be incorporated into construction plans and implemented.

- **BIO-2:** Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing would be installed around jurisdictional features and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas would be noted on design plans and delineated in the field prior to the start of construction activities.

- **BIO-3:** Construction activities in jurisdictional waters would be timed to occur between June 1 and October 31 in any given year, or as otherwise directed by the regulatory agency, when the surface water is likely to be dry or at a seasonal minimum. Deviations from this work window would be made only with permission from the relevant regulatory agencies.

- **BIO-4:** During construction, all project-related hazardous materials spills within the project site would be cleaned up immediately. Readily accessible spill prevention and cleanup materials would be kept by the contractor onsite at all times during construction.

- **BIO-5:** During construction, erosion control measures would be implemented. Silt fencing (or equivalent), fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional areas. 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 would conform to Best Management Practices. At a minimum, all equipment and vehicles would

be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.

- **BIO-7:** All refueling, maintenance and staging of non-stationary equipment and vehicles would occur at least 100 feet from jurisdictional areas and not in a location from where a spill would drain directly toward aquatic habitat. If stationary equipment must be refueled within 100 feet of jurisdictional areas, secondary containment Best Management Practices would be implemented. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- **BIO-8 (Mitigation Measure):** Temporary impacts to jurisdictional wetlands would be restored at a 1-to-1 ratio (acreage).

San Joaquin Coachwhip and Coast Horned Lizard

The following measures would be implemented as mitigation to reduce potential impacts to the San Joaquin coachwhip and coast horned lizard resulting from the project:

- **BIO-9 (Mitigation Measure):** Prior to construction, a qualified biologist would survey the Area of Potential Impact and, if present, capture and relocate any San Joaquin coachwhips and coast horned lizards to the nearest suitable habitat outside of the Area of Potential Impact. Observations of Species of Special Concern or other special-status species would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

- **BIO-10 (Mitigation Measure):** The project plans would 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 be permitted.

San Joaquin Kit Fox

The following measures would be implemented, in accordance with project's Biological Opinion, as mitigation to reduce potential impacts to the San Joaquin kit fox resulting from the project:

- **BIO-11 (Mitigation Measure):** Project employees would be directed to exercise caution when commuting within listed species habitats. A 20-mile-per-hour speed limit would be observed in all project areas, except on county roads and state and federal highways. Cross-country travel by vehicles would be prohibited outside of the project area unless authorized by the U.S. Fish and Wildlife Service. Project employees would be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

- **BIO-12 (Mitigation Measure):** Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees would attend an employee education program conducted by a Caltrans or U.S. Fish and Wildlife Service-approved biologist. The program would 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-13 (Mitigation Measure):** A litter control program would be initiated at each project site. No pets or firearms (except for law enforcement officers and security personnel) would be allowed onsite.

- **BIO-14 (Mitigation Measure):** Excavations deeper than 2 feet would 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 would be inspected thoroughly before being filled.

- **BIO-15 (Mitigation Measure):** All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater stored on the construction site overnight would 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 would 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-16 (Mitigation Measure):** The Resident Engineer or their designee would be responsible for implementing these conservation measures, and the Caltrans biologist would represent the point of contact for the project.

- **BIO-17 (Mitigation Measure):** Restoration and vegetation work would use California endemic plant materials from onsite or local sources. Loss of soil from runoff or erosion would be prevented using fiber rolls or similar material and by implementing the best management practices from the Caltrans National Pollutant Discharge Elimination System statewide storm water permit.

- **BIO-18 (Mitigation Measure):** Prior to any ground disturbance in suitable habitat, a preconstruction survey would be conducted for the San Joaquin kit fox. The preconstruction survey would 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 would identify any potential kit fox dens. The status of all potential dens would be determined and mapped. Potential dens would be monitored with tracking medium for three days to determine the current use. If no kit fox activity is observed during this period, then the den would be excavated by hand or carefully with equipment provided by the contractor, under the direction of the biologist to preclude subsequent use. If

kit fox activity is observed at a den, Caltrans will contact the U.S. Fish and Wildlife Service for further coordination.

- **BIO-19 (Mitigation Measure):** Written results of the preconstruction survey would be submitted to the U.S. Fish and Wildlife Service within 5 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 would be notified immediately. If the preconstruction survey reveals an active natal den or new information, Caltrans would notify the U.S. Fish and Wildlife Service immediately for further consultation.

American Badger and Salinas Pocket Mouse

The measures proposed for the San Joaquin kit fox would also serve to reduce impacts to the American badger and Salinas pocket mouse. No additional measures are proposed.

Burrowing Owl

The measures proposed for the San Joaquin kit fox would also serve to reduce potential impacts to the burrowing owl. Information regarding burrowing owls would be included in all environmental education materials. The following additional measures would be included for burrowing owls:

- **BIO-20:** A qualified biologist would conduct preconstruction surveys for the burrowing owl within the project area, within 30 days prior to project commencement. The biologist would 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. Observations of Species of Special Concern or other special-status species would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

- **BIO-21:** If a burrowing owl is detected within the project limits or within 250 feet of the construction activities, a buffer zone for the burrow or burrow complex would be defined. Between February 1 and September 1, the owls are presumed to be nesting and a buffer and monitoring would be implemented to provide protection to the nest and its occupants.

Bald Eagle

In addition to the measures listed below that apply to all other nesting and migratory birds protected by the Migratory Bird Treaty Act and the California Fish and Game Code, the following protective measures, in accordance with the project's Biological Opinion, are specific to the bald eagle:

- **BIO-22 (Mitigation Measure):** 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), would not occur until a qualified biologist conducts a survey to determine nest activity.

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 would not commence until the qualified biologist has determined that nesting is complete, and eagles have fledged.

- **BIO-23:** 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 the California Department of Fish and Wildlife, as needed, to avoid potential adverse effects.

Other Migratory and Nesting Birds

The following measures apply to all birds protected by the Migratory Bird Treaty Act and the California Fish and Game Code. The list of birds protected by these regulatory laws is extensive, and not all birds protected by these laws are included in Table 2.7. There are no formal survey protocols for most of these bird species, but the California Department of Fish and Wildlife typically requires preconstruction nesting bird surveys and avoidance of impacts to active bird nests.

- **BIO-24:** Prior to construction, vegetation removal would 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 would 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 would implement an appropriate buffer or monitoring strategy based on the habits and needs of the species. The buffer area or monitoring strategy would be implemented until a qualified biologist has determined that juveniles have fledged or nesting activity has otherwise ceased.

- **BIO-25:** During construction, active bird nests would not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and the California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time.

- **BIO-26:** Trees to be removed would be noted on design plans. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing would be installed around the dripline of trees to be protected within project limits.

- **BIO-27:** All clearing/grubbing and vegetation removal would be monitored and documented by a qualified biologist regardless of time of year.

Invasive Species

The following avoidance and minimization measures would be implemented to reduce the risk of impacts related to invasive species propagation:

- **BIO-28:** During construction, Caltrans would ensure that the spread or introduction of invasive exotic plant species would be avoided to the maximum extent possible.

- **BIO-29:** Only clean fill would be imported. When practicable, invasive exotic plants in the project site would be removed and properly disposed of. Any plant species rated as “High” on the Cal-IPC Invasive Plant Inventory that are removed from the construction site would be taken to a landfill to prevent the spread of invasive species.

- **BIO-30:** Plant species that the Cal-IPC, the California Department of Agriculture, the California Department of Fish and Wildlife, or other resource organizations consider to be invasive or potentially invasive would not be used in erosion control seed mix or to revegetate areas of disturbance. Caltrans erosion control mix would contain only native species to the Central Coast of California.

- **BIO-31:** Construction equipment would be inspected as “weed-free” by Caltrans before entering the construction site. If necessary, wash stations onsite would 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.

2.1.5 Cultural Resources

Archaeological and historic surveys for this project yielded no evidence of cultural resources, either historic or prehistoric, within the study area. This project, as proposed, does not have the potential to affect cultural resources. Considering the information in the project’s Historic Property Survey Report (dated May 3, 2023) and Archaeological Survey Report dated May 2023, 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?	**No 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?	**No Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

2.1.6 Energy

The project would not increase roadway capacity, so there would be no significant long-term increase in energy consumption. Minor use of fuels and other energy sources would be required during maintenance of the rehabilitated roadway and drainage systems. The replacement of aging infrastructure would reduce the potential future scheduled and unanticipated maintenance operations and any affiliated energy use for maintenance vehicle access and equipment use.

During operation, the vehicular detection system and 14 traffic count stations would use electricity as necessary to maintain operation. Energy consumption would be minimized whenever possible through recycling of materials and implementation of greenhouse gas reduction strategies as discussed in Section 2.1.8, Greenhouse Gas Emissions. Though energy would be required to construct and operate the project, the use of energy would not be wasteful, inefficient, or unnecessary.

Considering the information in the project's Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memo dated April 25, 2023, 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

The project area is not within the boundaries of or near an Alquist-Priolo Earthquake Fault Zone. Therefore, the risk of ground surface rupture and related hazards at the project site is expected to be low. Also, the project site is not within an area that is known for high groundwater or risk of landslides

(Source: California Department of Conservation, Earthquake Zones of Required Investigation, https://maps.conservation.ca.gov/cgs/eqzapp/app/, accessed on August 25, 2023). For this transportation project, no septic tanks or wastewater disposal systems would be constructed. During construction, portable toilets would be used, and collected waste would be disposed of at designated offsite facilities with available capacity.

For the project, impacts to paleontological resources are not expected because earthwork for all project elements is expected to be fairly shallow (less than 10 feet), including the in-kind replacement of drainage facilities, and would therefore be limited to previously disturbed deposits that have no paleontological potential. No sediments of high paleontological potential are expected to be disturbed by project construction. It should also be noted that the U.S. 101 corridor has been modified by past human activity. Though not formally included on geologic maps, it is assumed that portions of the sediments underlying the project corridor have been previously disturbed by construction of the highway and related infrastructure. Previously disturbed deposits have no paleontological potential because any contained fossil remains have lost their original geographic and stratigraphic contextual data and therefore would not be scientifically significant. In the unlikely event that fossils are unearthed during project construction, Standard Specification 14-7.03 provides procedures to be followed for unanticipated fossil discoveries.

Considering the information in the Paleontological Identification Report (dated April 24, 2023) for the project, the U.S. Department of Agriculture Soil Conservation Service's Soils Survey of Monterey County, California (dated April 1978), and the County of Monterey Geographic Information Systems data (https://montereycountyopendata-12017-01-13t232948815z-montereyco.opendata.arcgis.com/ Accessed: April 24, 2023) 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.	**No Impact**
ii) Strong seismic ground shaking?	**Less Than Significant Impact**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
iii) Seismic-related ground failure, including liquefaction?	**Less Than Significant Impact**
iv) Landslides?	**No 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?	**Less Than Significant Impact**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	**No Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**No Impact**

Affected Environment

Evaluation of the project's geological and paleontological elements included a review of available geological mapping, paleontological and geological literature, the PaleoBiology Database, Caltrans paleontology mapping tool, and Google Street View Imagery. A field review was not conducted.

The project site lies on a rolling plain that varies in elevation between about 500 to 600 feet above mean sea level. The site lies east of the Santa Lucia Mountain Range within the Salinas River Valley, which is part of the Coast Range Geomorphic Province of California. The Central Coast Region of this province is divided into two major blocks; the Salinian Block and the Coastal Block. These blocks are separated by the Rinconada Fault Zone, which lies an average of 5.25 miles west of the site. Based on the County of Monterey Geographic Information Systems data, the site is on the Salinian Block.

Within the project limits, U.S. 101 runs parallel to and twice crosses the Los Lobos thrust fault. The U.S. Geological Survey's interactive Quaternary faults database shows the Los Lobos thrust fault as a late Quaternary (less than 130,000 years before the present) northwest-trending, southwest-dipping

fault. The most recent activity of the Los Lobos thrust fault has been determined to be middle to late Pleistocene in age (about 11,700 to 1.25 million years ago).

According to County of Monterey online mapping and data, the project site soils have a moderate risk for liquefaction (where the soil turns to a jellylike substance during a seismic event). Project area soil types and associated properties, as identified by U.S. Department of Agriculture Soil Conservation Service soil surveys of the project area, are listed in Table 2.11 (Project Area Soil Types and Properties). Project area soils have the potential for erosion and for shrinking and swelling.

Table 2.11 Project Area Soil Types and Properties

Soil Types	Erosion Hazard	Shrink/Swell Potential
Chamise channery loam, 15 to 30 percent slopes	High	Low to Moderate
Gazos silt loam, 30 to 50 percent slopes	Moderate to High	Moderate
Lockwood channery loam, 2 to 9 percent	Slight to Moderate	Moderate to High
Lockwood shaly loam, 9 to 15 percent slopes	Moderate	Moderate to High
Los Osos clay loam, 9 to 15 percent slopes	Moderate	High
Los Osos clay loam, 30 to 50 percent	High	High
Metz loamy sand	Slight	Low
Metz complex	Slight	Low
Nacimiento silty clay loam, 15 to 30 percent slopes	Moderate	Moderate
Pico fine sandy loam	Slight	Low
Rincon clay loam, 2 to 9 percent	Low	Moderate to High
Santa Lucia channery clay loam, 30 to 50 percent slopes	High	Low
Santa Lucia-Reliz association	High	Low
Xerorthents, loamy	Variable	Moderate

Source: U.S. Department of Agriculture Soil Conservation Service's Soils Survey of Monterey County, California (dated April 1978)

Environmental Consequences

A risk-free seismic environment does not exist anywhere in California. Generally, shaking is less severe on rock than on alluvium or fill, though other local geologic conditions in a project area may override this generalization. Although the project area could experience strong shaking in the event of an

earthquake, the proposed improvements to the highway infrastructure would not add any new structural elements to the project limits of the route that might otherwise increase the potential for seismic hazards to the traveling public in the long-term use of the highway within the project limits. Seismic design standards in the Caltrans Highway Design Manual are implemented to the extent needed for each project's specific geologic and soil setting and to address the specific elements of design. These design standards would minimize the susceptibility of the project route, the travelers that use the highway, and the nearby buildings and utilities to damage from earthquakes and other seismically induced hazards over the long term. Also, the contractor is responsible pursuant to the requirements of the U.S. Department of Labor and the U.S. Department of Occupational Safety and Health administrations to provide employees with a workplace free from recognized hazards likely to cause death or serious physical harm, including during seismic events.

Drainage systems that are proposed for replacement using the cut and cover method would install the new culverts at approximately the same depth below the ground surface as the existing culverts that are being replaced (within 3 to 10 feet below the highway). Trenches cut for the repair work would be laid back into slopes and embankments, which would be required to be shored up at 95 percent compaction, using concrete slurry backfill when appropriate, to ensure there would be no roadway or embankment slope failures. Culvert repairs would not increase the groundwater levels in the work areas and would, therefore, not increase the expansive potential of the soils in the project construction areas. Also, Standard Specifications and Best Management Practices would be implemented during construction at project work locations for control of erosion and sedimentation from the construction work areas, as further discussed in Section 2.1.10, Hydrology and Water Quality. It is expected that construction of the project would have less than significant impacts related to soil instability and erosion.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are proposed.

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change Technical Report (November 28, 2023) and the Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Assessment Memo (dated April 25, 2023), 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

Regulatory agencies take greenhouse gas emissions inventory estimates to track the amount of greenhouse gases discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual greenhouse gas emissions allows all levels of government jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals set by the jurisdictions. The U.S. Environmental Protection Agency is responsible for documenting greenhouse gas emissions nationwide, and the California Air Resources Board documents emissions for the state as required by Health and Safety Code Section 39607.4.

The 1990-2019 greenhouse gas inventory for the nation prepared by the U.S. Environmental Protection Agency found that overall greenhouse gas emissions were 6,558 million metric tons in 2019, down 1.7 percent from 2018, but 1.8 percent higher than 1990 levels. The transportation sector accounted for 29 percent of the national greenhouse gas emissions in 2019 (U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019, EPA 430-R-21-005, https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019. Accessed: September 5, 2021).

The California Air Resources Board collects greenhouse gas emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. The data is summarized, and major trends are identified to demonstrate the state's progress toward meeting its greenhouse gas reduction goals. The 2021 edition of the Greenhouse Gas Inventory 2000-2019, Trends of Emissions and other Indicators Report (California Air Resources Board, July 28, 2021) identified total emissions of 418.2 million metric tons of carbon dioxide equivalent statewide for 2019, a reduction of 7.2 million metric tons of carbon dioxide equivalent since 2018, with the transportation sector responsible for nearly 40 percent of the total greenhouse gases. The inventory also found that overall statewide greenhouse gas emissions declined from 2000 to 2019 despite

growth in population and state economic output (California Air Resources Board 2021, https://ww2.arb.ca.gov/ghg-inventory-data/).

The project is within the jurisdiction of the Transportation Agency for Monterey County, which is designated by the State of California as the Regional Transportation Agency for the county. The Association of Monterey Bay Area Governments is the joint power, multi-planning agency for the area, and the federal Metropolitan Planning Organization for the region. The Transportation Agency for Monterey County updates the Regional Transportation Plan every four years in coordination with the Association of Monterey Bay Area Governments, which prepares a Metropolitan Transportation Plan/Sustainable Communities Strategy for the three counties of Monterey, San Benito, and Santa Cruz. The Regional Transportation Plan provides a basis for actions to allocate state and federal funding for transportation improvement projects.

In 2008, the State of California enacted Senate Bill 375, which requires Metropolitan Planning Organizations to prepare a Sustainable Communities Strategy. The strategy integrates land use and transportation planning by coordinating transportation investments with land use patterns to reduce greenhouse gas emission targets set by the state for each region. The California Air Resources Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Metropolitan Transportation Plan/Sustainable Communities Strategy to plan future projects that will cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels. The regional reduction target for the Association of Monterey Bay Area Governments is 6 percent by 2035 (Air Resources Board 2019c). The Transportation Agency for Monterey County coordinated with the Association of Monterey Bay Area Governments to develop a Policy Element, a Financial Element, and a list of regional transportation investments that achieve greenhouse gas emissions reduction targets and support the Association of Monterey Bay Area Government's 2040 Metropolitan Transportation Plan-Sustainable Communities Strategy (Transportation Agency for Monterey County Regional Transportation Plan 2018 (ii)).

The 2018 Regional Transportation Plan identifies U.S. 101 as an interregional travel route providing north-south access for traffic between Los Angeles and San Francisco. Within Monterey County, the U.S. 101 corridor includes the City of Salinas and the southern Monterey County cities of Gonzales, Soledad, Greenfield, and King City. This corridor serves as both a significant county commute corridor and an important interregional corridor for goods movement and Monterey County's agricultural industry. The 12.8-mile portion of U.S. 101 in the project limits goes through rural residential, agricultural, and mineral extraction land uses. Most of the project site is in a rural landscape amidst scenic hills and open spaces. Within the project limits, U.S. 101 has

an annual average daily traffic volume of 13,225 vehicles (Caltrans State Highway Traffic Census data 2019).

Environmental Consequences

Greenhouse gas emissions from transportation projects can be divided into those produced during the operation of the state highway system and those produced during the construction of highway facility improvements. The main greenhouse gases produced by the transportation sector are carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. Carbon dioxide emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of methane and nitrous oxides are emitted during fuel combustion. Relatively small amounts of hydrofluorocarbon emissions are generated by the transportation sector.

The California Environmental Quality Act Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Public Resources Code, Section 21083(b)(2)). To assess the incremental effects that an individual project would contribute to the cumulative impacts of greenhouse gas generation, the project's greenhouse gas emissions must be considered along with the emissions from past, present, and reasonably foreseeable (probable) future projects. Not every individual project that emits greenhouse gases must necessarily be determined to contribute to a significant cumulative impact on the environment.

Operational Emissions

Long-term operational increases in greenhouse gas emissions are not expected because the project would not increase the capacity of U.S. 101 (for example, by adding travel lanes). Therefore, it would not increase vehicle miles traveled on the route. Non-capacity-increasing projects generally cause minimal or no increase in operational greenhouse gas emissions in the long term. The improved condition of the roadway infrastructure within the project and associated culvert rehabilitation where necessary would reduce the potential number of maintenance-related operational vehicle trips to the project site in the long term, thereby providing greenhouse gas reduction benefits.

Construction Emissions

Construction greenhouse gas emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. Estimated greenhouse gas emissions from project construction activities were quantified using the Caltrans Construction Emissions Tool (2021), using settings for a pavement preservation project. Greenhouse gas emissions are estimated to total about 683 metric tons of carbon dioxide per year during the estimated 150 working days of project construction (less than one year). The estimated average carbon dioxide equivalent emissions are 460 metric tons generated over the same construction period. Carbon dioxide equivalent is a measure used to compare emissions from a variety of

greenhouse gases based on their global warming potential. For the proposed project, the carbon dioxide equivalent calculation considers converted amounts of methane, nitrous oxide, and hydrofluorocarbons. Therefore, total construction-related greenhouse gas emissions over the project's duration were estimated at 1,143 metric tons.

Standard Measures and Project Features

The frequency and occurrence of greenhouse gas emissions during the construction period would be reduced by the implementation of standard measures and Best Management Practices. All construction contracts include Standard Specifications Sections 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and would comply with all California Air Resources Board emission reduction regulations. All construction contracts also include Standard Specifications Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Routine regulations such as equipment idling restrictions that reduce construction vehicle emissions also help reduce the generation of greenhouse gas emissions.

The project's construction contractor would be required to comply with all air pollution control rules, regulations, ordinances, and statutes, according to Standard Specifications Section 14-9.02, Air Pollution Control. Compliance would minimize project impacts that would result in increased greenhouse gas emissions and reduced water supply. The project would ensure that two-way (bidirectional) flow remains open throughout construction with the implementation of Standard Specifications (Sections 12-1 through 12-7) and Standard Special Provisions pertaining to traffic management and control and through the implementation of a Transportation Management Plan prepared specifically for the project route and setting conditions. The project would balance earthwork (cut and fill quantities) to reduce the need for transport of earthen materials through the implementation of Standard Specification, Section 19-2.03B (Surplus Material), which requires authorization before disposing of surplus materials or using it for fill. The project would conserve water during construction through the implementation of Standard Specification, Section 10-4 (Water Usage), which encourages the construction contractor to conserve water in all construction activities. The use of recycled water for construction needs would be prioritized through the implementation of Standard Specification, Section 10-6 (Watering), which requires that water for construction may be potable or non-potable, and that non-potable water must be either recycled water or non-potable water developed from other sources.

The replanting of trees and other native vegetation removed for construction of the project improvements, as minimization measures prescribed in Section 2.1.1, Aesthetics, and Section 2.1.4, Biological Resources, would sequester carbon. Revegetation plans would include standard practices of compliance

with the statewide Model Water Efficient Landscape Ordinance or local agency ordinance for water conservation for project landscape maintenance and inclusion of landscaping components such as mulch and compost application to improve carbon sequestration rates in soils and reduce organic waste.

Greenhouse Gas Reduction Strategies

The project would also include greenhouse gas reduction strategies that would further avoid and minimize the emission of greenhouse gases. These strategies would be included as avoidance and minimization measures and are fully listed below. The project's greenhouse gas reduction strategies would use measures to reduce construction waste and improve fuel efficiency.

Avoidance, Minimization, and/or Mitigation Measures

Although the project would not result in significant greenhouse gas emissions, implementation of minimization measures prescribed in Section 2.1.1, Aesthetics, and Section 2.1.4, Biological Resources, for tree and vegetation replanting would help to offset the project's greenhouse gas emissions. In addition, the following greenhouse gas reduction strategies would be implemented as avoidance and minimization measures to further offset greenhouse gas emissions during construction:

- **GHG-1:** As feasible, the construction contractor would reduce construction waste and maximize the use of recycled materials, including but not limited to stockpiling pavement grindings for future use, salvaging rebar from demolished concrete, and processing waste to create usable fill (that is, crushing concrete for aggregate base).
- **GHG-2:** The construction contractor would operate construction equipment with improved fuel efficiency by:
    - Properly tuning and maintaining equipment, when feasible.
    - Using the right-sized equipment for the job, as feasible.
    - Using solar-powered equipment, when feasible.
    - Using Tier 4 equipment (applicable for manufacturers that create fuel-efficient engines), when feasible.
    - Using alternative fuels such as renewable diesel, as feasible.
    - Producing hot mix asphalt with warm mix technology, as feasible.
    - Recycling of non-hazardous waste and excess materials, when feasible, to reduce disposal offsite.

2.1.9 Hazards and Hazardous Materials

As noted in the project's Initial Site Assessment memorandum (dated April 28, 2023), the project site is not on properties that are included on a list of

hazardous materials sites compiled pursuant to California Government Code Section 65962.5. Asbestos-containing materials and lead-containing paint are not expected within the project work areas. Naturally occurring asbestos does not occur within the project area. According to Federal Aviation Administration maps, the project site is not within the vicinity of a private airstrip, an airport land use plan, or within 2 miles of a public airport or public use airport. The project site is not within one-quarter mile of any existing or proposed schools, according to the San Ardo Union Elementary District and Bradley Union Elementary School District.

Considering the information in the project's Initial Site Assessment memorandum, publicly available online mapping, LandVision, the California Environmental Protection Agency's Cortese List, the Federal Aviation Administration San Francisco Visual Flight Rules Sectional Chart, and the California Department of Forestry and Fire Protection's Fire Hazard Severity Zone Map for Monterey County, 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**
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?	**No Impact**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
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?	**No Impact**

Affected Environment

The project site lies along a 12.8-mile-long section of rural freeway. Treated wood waste has historically been used for guardrail and other highway components within the project limits. Treated wood waste is considered to be a California hazardous waste.

The historic use of leaded gasoline in automobiles has led to soils along roadways throughout California containing elevated concentrations of lead. Soil determined to contain 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. This agreement outlines which soils can be safely reused within the project limits, and which soils must be exported and disposed of as hazardous waste.

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.

According to the California Department of Forestry and Fire Protection's Fire Hazard Severity Zone Map for Monterey County, the project site is in a High Fire Hazard Zone and the nearest Very High Fire Hazard Zone is 1.5 miles to the west. Most of the project site goes through fire-susceptible rural residential areas and open spaces with woodland, scrub, and grassland vegetation.

According to the Caltrans Climate Change Vulnerability Assessment for District 5, the fire severity levels for the project and surrounding region are forecast to increase due to climate change factors. U.S. 101 is included in the list of designated evacuation routes in the Monterey County General Plan (General Plan Safety Element, Table S-1). In addition, Goal S-5.14 of the Safety Element states that all public thoroughfares, private roads, and deeded emergency accesses are considered potential emergency evacuation routes.

Environmental Consequences

The project is not likely to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Project construction could potentially involve encounters with contaminants and waste streams that are frequently encountered or produced by Caltrans projects. Investigation of these routine issues (when required) is typically conducted during the project's final design stage. Standard Special Provisions have been developed for the proper handling, treatment, and disposal of these routine hazardous materials/wastes during construction to protect the health of workers, the public, and the environment.

Along the existing right-of-way of U.S. 101 near the project limits, aerially deposited lead concentrations below hazardous waste criteria (below Department of Toxic Substances Control Aerially Deposited Lead Agreement regulatory concentrations) have been documented to a depth of 2.5 feet in exposed soils. Management and disposal (if required) of soils in this area would follow Standard Special Provision 7-1.02K(6)(j)(iii), for Unregulated Earth Material and may be reused or disposed without restriction.

The yellow traffic striping within the project limits was replaced in 2002 and 2003 and does not contain hazardous lead. Nevertheless, the project would include Standard Special Provisions for stripe removal. The appropriate Standard Special Provision for stripe removal is 84-9.03B if the stripe would be removed separately, or 36-4 (Residue Containing Lead from Paint and Thermoplastic) if the stripe would be removed as part of a cold plane or grinding operation. Regardless of the removal method, a Lead Compliance Plan would be developed and implemented by the construction contractor and would be included as a bid item.

Treated wood waste may be generated from the reconstruction and disposal of guardrail posts. Treated wood waste would be managed and disposed of in accordance with Standard Special Provision 14-11.14, Treated Wood Waste, which would be included in the construction contract.

As listed in Section 1.5, Standard Special Provisions 14-11.03 and 14-11.06 would require compliance with applicable hazardous materials regulations. Implementation of standard measures and Best Management Practices for hazardous materials and waste would ensure that potential hazards to the public involving the release of hazardous materials into the environment

around the project site would be minimal. Impacts associated with the creation of 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 would be less than significant.

Minor delays in emergency service response times may result during construction due to periodic lane closures and/or modifications, route detours, driveway closures, and other circulation and access alterations. A Transportation Management Plan for traffic control and access during construction would minimize to the extent feasible any delays in emergency service access that could result from the necessity of activating lane closures and/or modifications and detour routes.

The Resident Engineer for the project would notify and coordinate with regional emergency service providers regarding construction-related activities to ensure that project activities would not restrict or prevent access within the project area. Access for fire/paramedic and other emergency service vehicles through the project limits would be enabled through controlled work zones by the project's construction contractor. The construction contractor would also ensure that construction activities would not block emergency service access to all interconnecting roadways and routes in the project area. Coordination with the regional transit provider would occur to provide information in advance for potential route rescheduling. The project would include Standard Specifications and Standard Special Provisions that pertain to actions and strategies that would help maintain a safe environment for construction workers and the traveling public. Refer to additional discussions in Section 1.4.1, Build Alternative, and Section 2.1.17, Transportation.

The project would extend the life of the highway infrastructure. The project would not change the existing land uses or generate new development so that new populations and structures would be brought into wildland fire zones. As noted in Section 1.5, the project would implement Standard Special Provision 7-1.02M(2), which would require the contractor to develop and implement a fire prevention plan to minimize the risk of starting a wildfire during construction. Therefore, the project would not expose residents or businesses to increased risk of loss, injury, or death from wildland fires in the long term or permanently increase the potential for wildfire hazards in the region.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are proposed.

2.1.10 Hydrology and Water Quality

Considering the information in the project's Air Quality, Greenhouse Gas, Noise and Water Quality Technical Memo (dated April 25, 2023), Location Hydraulic Study (dated May 1, 2023), and Stormwater Data Report (dated October 9, 2023), 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: (i) result in substantial erosion or siltation onsite or offsite;	**Less Than Significant Impact**
(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**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**No Impact**

Affected Environment

The receiving water body in the vicinity of the project limits is the Salinas River with associated tributary creeks. The project is within the Upper Salinas Valley Hydrologic Area (sub area 309.40) in the Salinas Hydrologic Unit. A review of the project's location with respect to adjacent receiving waters

indicates that the water bodies include impairments listed on the 2014/2016 Clean Water Act Section 303(d) list. According to the 303(d) list, the adjacent water bodies are impaired for benthic community effects, pH, temperature (water), toxicity, and turbidity.

The beneficial uses of the Salinas River are as follows:

- Biological Habitats of Special Significance
- Cold Freshwater Habitat
- Commercial and Sport Fishing
- Estuarine Habitat
- Migration of Aquatic Organisms
- Rare, Threatened, or Endangered Species
- Water Contact Recreation
- Non-contact Water Recreation
- Shellfish Harvesting
- Spawning, Reproduction, and/or Early Development
- Warm Freshwater Habitat
- Wildlife Habitat

There are no Drinking Water Reservoirs and/or Recharge Facilities within the project limits. No existing Treatment Best Management Practices are located within the project limits.

The Salinas River flows alongside the eastern side of U.S. 101 in Monterey County. This region is designated by the Federal Emergency Management Agency as a Special Flood Hazard Area Zone AE. The Federal Emergency Management Agency defines Zone AE areas as areas that present a 1.0 percent annual chance of flooding and are typically paired with detailed information regarding base flood elevations. At post mile R9.7, the northbound lane of U.S. 101 crosses a Zone AE area. At the same location, the portions of the route that are not in a Zone AE are within a Special Flood Hazard Area Zone X. Zone X areas are defined as areas that have a 0.2 percent annual chance of flooding.

The project limits are outside of the Tsunami Hazard Area according to the California Department of Conservation tsunami hazard areas of Monterey County (https://www.conservation.ca.gov/cgs/tsunami/maps/monterey/).

Environmental Consequences

Sources of impacts would be mostly from the use of construction equipment and associated worker foot traffic. Trucks, bulldozers, backhoes, compactors, 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 edges of U.S. 101.

The proposed replacement culverts and infrastructure to be repaired would be addressed at the approximate same locations and alignments and with the same lengths of pipe or slightly longer as the existing facilities. Excavation where the trenching (cut-and-cover) method is proposed would be at approximately the same depths for repair or replacement of culverts as the existing culverts. For the locations where the trenchless pipe jacking method is proposed, the new pipe would also be installed at approximately the same depths as the existing infrastructure.

Drainage inlets would be modified at various locations to accommodate the installation of the new culverts. As described in Table 1.1 (Drainage System Locations and Construction Activities), only one of the existing project culverts would be replaced with a larger diameter pipe. The larger diameter pipe is proposed so that debris would pass more easily and to facilitate maintenance of the drainage infrastructure. The other project culverts would be replaced with pipes of the same diameter as the existing pipes. Therefore, the project would not cause any substantial alteration of existing drainage patterns.

The replacement and repair work would not alter the watersheds that contribute surface runoff via tributaries into the project culverts. As culvert pipe size (diameter) increases, the drainage flow rates (velocities) decrease, and potential scour is reduced; the smaller the pipe diameter, the greater the force of water that builds up behind it. Also, the project would not increase the existing grade (degree of steepness) of the drainage infrastructure. Pipe inlets would be designed and spaced to control the quantity of runoff that passes through based on 25-year storm event criteria. Therefore, the project would not increase quantities or flow rates of surface runoff passing through the pipes.

The project does not consist of a longitudinal encroachment or a significant encroachment on the base floodplain as defined in Section 650.105q of the Code of Federal Regulations 23. The project proposes to rehabilitate the existing pavement and cross culverts. In areas where the floodplain may encroach, no additional widening, fills or obstructions are proposed. This work would not impact the floodplain because the improvement would not cause a significant increase in roadway elevation and alter the natural flow of the floodplain. Therefore, this project does not constitute a longitudinal or a significant encroachment on the base floodplain.

The construction activities for the project would not use any groundwater for water supply during construction or for mitigation landscape maintenance, and therefore would not affect recharge of local groundwater units. Revegetation would include native trees and plants, occur at the maximum extent horticulturally viable, and be maintained until established. Water for tree and plant establishment would be brought in by truck and delivered directly to replanted areas. Landscape irrigation is not required for this project. Therefore, the potential for conflicts with or obstruction of the implementation of a water quality control plan or sustainable groundwater management plan would be minimal and less than significant.

Construction activities such as excavation and trenchless horizontal drilling could potentially discharge stormwater along with erosion and sedimentation into surface waters and receiving water bodies downstream. However, the amount of earthwork overall would not be so extensive that existing turbidity conditions would be increased, according to the Water Quality Assessment technical analysis. The project would be designed to avoid impacts from turbidity to receiving waters downstream of the project limits in accordance with the design storm criteria discussed above.

Standard measures and Best Management Practices listed in Section 1.5 would be implemented to protect surface water and groundwater quality and to minimize potential erosion and sedimentation during construction. A Water Pollution Control Program would be prepared by the construction contractor, who would be responsible for adherence to the specifications and measures in the program. Implementation of the standard measures would keep potential project water quality effects to a minimum and short-term. These management options would not discharge into a stormwater drain or receiving water.

The project would create over 1 acre of net new impervious surfaces and would disturb more than 1 acre of soil. A Storm Water Pollution Prevention Plan and coverage under the Construction General Permit would be required for this project. A preliminary Construction General Permit risk level assessment has determined that the risk for this project is Risk Level 2 (Medium). According to the project's Storm Water Data report, no permanent storm water treatment Best Management Practices would be required for this project.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are proposed.

2.1.11 Land Use and Planning

Transportation plans and programs applicable to this project include the Transportation Agency for Monterey County's 2018 Regional Transportation Plan and the Association of Monterey Bay Area Governments' Metropolitan

Transportation Improvement Program for Federal Fiscal Year 2020-2021 to Federal Fiscal Year 2023-2024. The Monterey County plan relevant to the project study area is the Monterey County General Plan.

The project is included in the adopted Association of Monterey Bay Area Governments Metropolitan Transportation Improvement Program for Federal Fiscal Year 2020-2021 to Federal Fiscal Year 2023-2024. The project is proposed for funding under the Roadway Preservation Program and programmed in the State Highway Operation and Protection Program.

Because the scope of the project is to upgrade infrastructure and rehabilitate pavement and drainage features on U.S. 101, existing and future land uses within or adjacent to the project limits would not be changed, nor would the project divide an established community. The replaced features would be installed in the same locations as the existing infrastructure with minor adjustments at selected locations for embankment and slope stabilization.

The project would not conflict with the elements of the general plans of Monterey County or any other land use policy or regulation intended to avoid or mitigate any effects on the environment. Appendix C contains a table that evaluates the project's consistency with relevant local plans. Because the project would upgrade and repair aging infrastructure within the highway corridor and would not increase the capacity of the highway, it would not directly or indirectly cause changes in land uses that would conflict with planning policies and regulations. The project would implement compensatory mitigation for potential impacts to sensitive wildlife and plant species and locally and regionally important habitat types. Avoidance and minimization measures would be implemented to further reduce the project's potential effects on the environmental resources of the project area, including biological resources, visual resources, and generation of greenhouse gases. Standard Specifications and standard special provisions would be applied for noise level controls from construction vehicles and equipment, proper handling and disposal of hazardous materials and waste, and Best Management Practices for the protection of water quality.

Upon consideration of the above 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

From approximately post mile R14.5 to post mile R17.2, the project site is located within a Mineral Extraction (HI) zone district per the Monterey County Zoning Ordinance. However, activities in the area are limited to petroleum extraction. Petroleum (crude oil) is not a mineral but is considered a mineral resource because it is associated with geology. According to the California Geological Survey Mineral Land Classification Map for the project area and the Monterey County 2007 General Plan Draft Environmental Impact Report (Section 4.5.1, Mineral Resources), there are no other known mineral resources that would be of value to the region and the residents of the state within the project limits. The nearest mineral recovery site to the project limits is the SBS Concrete Aggregate Supplies: Hidden Canyon Quarry sand and gravel quarry 36 miles to the north in the Gabilan Range foothills. Implementation of the Build Alternative would not impede mineral resource recovery, and access to mineral resource recovery areas would be maintained during construction. 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

Pursuant to 23 Code of Federal Regulations 772.7, the Federal Highway Administration defines transportation projects as Type 1 (construction that involves a substantial horizontal or vertical alteration), Type 2 (construction of noise abatement on an existing highway with no changes to highway capacity or alignment) or Type 3 (projects that do not meet the definitions of either Type 1 or Type 2). The project is a Type 3 project because it would not increase the capacity of U.S. 101 and it would not involve substantial design alterations or construct noise abatement measures on the highway. Because the project is a Type 3, long-term local noise levels on the highway from traffic within the project limits would not be changed, and therefore, noise abatement measures would not be required. Also, the project limits are not located within the vicinity of a private airstrip or an airport land use plan, or within 2 miles of a public airport or public use airport.

Considering the information in the Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memo dated April 25, 2023, and the information above, 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 is rural with grazing lands and very few residential units scattered along the project limits. In some portions of the project limits, residential development is set back from the highway; in others, it is close by. The closest residences to proposed work areas are at post miles R9.7 (approximately 100 feet), R17.7 (approximately 160 feet), and R21.5 (approximately 100 feet). Project activities near these locations may include pavement rehabilitation, guardrail upgrades, sign replacement, and construction of shoulder backing. All other residences are 200 feet or more from the project work areas.

Environmental Consequences

The California Environmental Quality Act (CEQA) considers noise to be a significant effect when it increases substantially the ambient noise levels for adjoining areas. The proposed roadway and drainage rehabilitation activities would not cause any permanent increase in ambient levels in the project vicinity or region. Since no capacity would be added to the highway and no significant change in the profile of the highway is anticipated, it is assumed that local noise levels would be the same after completion of the project as they were before. Long-term noise abatement measures are not anticipated

with this project. Night work would be used depending on traffic demands at construction locations.

Adverse noise impacts from implementation of the Build Alternative are not anticipated because construction would be temporary and intermittent, conducted in accordance with Standard Specifications, and because local noise levels are significantly influenced by local traffic noise. The potential for the project to generate 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 would be less than significant.

The project would not directly or indirectly generate additional long-term vibration or groundborne noise from traffic operations along the project route because the highway's vehicular capacity would not change. Roadway and drainage system rehabilitation would not cause any permanent increase in ambient vibration and groundborne noise levels in the project vicinity or region. The project's potential to generate excessive groundborne vibration or groundborne noise levels would be less than significant.

Avoidance, Minimization, and/or Noise Abatement Measures

The following general measures would be implemented, as appropriate, to further minimize temporary construction-noise impacts:

Equipment Noise Control

- **NOI-1:** The construction contractor would develop a Noise Control Plan and submit it to Caltrans District 5 noise staff for review. District noise staff would be responsible for obtaining nonstandard special provisions addressing any necessary requirements of the Noise Control Plan.

- **NOI-2:** The construction contractor would shield loud pieces of stationary construction equipment if complaints are received.

- **NOI-3:** The construction contractor would locate portable generators, air compressors, and other similar equipment as far away from sensitive noise receptors as feasibly possible.

- **NOI-4:** The construction contractor would limit the grouping of major pieces of equipment operating in one area to the greatest extent feasible.

- **NOI-5:** The construction contractor would use newer equipment that is quieter and would ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational. The construction contractor would equip internal combustion engines used for any purpose on or related to the job with a muffler or baffle of a type recommended by the manufacturer.

- **NOI-6:** The Resident Engineer for the project would ensure that, whenever possible, construction work is conducted during the day when work is near sensitive receptors. If nighttime construction activities are necessary, the noisiest and/or most vibratory construction activities near residences would be conducted as early in the evening as possible.

- **NOI-7:** The Resident Engineer for the project would consult Caltrans District 5 noise staff if complaints are received during the construction process.

Administrative Measures

- **NOI-8:** Caltrans would 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. The notice would be provided two weeks in advance and would be published in local news media with the dates and duration of the proposed construction activities. The Caltrans District 5 Public Information Office would post notices of the proposed construction and potential community impacts after receiving notice from a Caltrans Resident Engineer.

2.1.14 Population and Housing

The project would not alter the existing capacity or alignment of U.S. 101; therefore, it would not induce unplanned population growth directly or indirectly. The project would not 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**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	**No Impact**

2.1.15 Public Services

The project would be within the existing alignment of U.S. 101. As is typical with all Caltrans construction projects, the project would require traffic enforcement from the California Highway Patrol during construction. Public access would be maintained on U.S. 101 during construction activities. No population growth or need for additional public services would result from the

improvements within the project limits. The project would not impact any existing or planned governmental facilities near the project location.

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 Build Alternative would upgrade infrastructure and rehabilitate pavement and drainage systems within the project limits on U.S. 101. The existing highway capacity for vehicle traffic would not be increased. The project would not provide new routes or route alignments that could facilitate population growth and additional development. Therefore, the project would not result in direct or indirect impacts that would increase the use of existing neighborhood and regional parks or other recreational facilities so that substantial physical deterioration of the facilities would occur or be accelerated. The project does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. There are no recreational facilities within the project limits or nearby that would be directly or indirectly affected by the project.

Considering the information provided above and in Section 1.4.1, Build Alternative, 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 generate any additional population growth in the project area or region and therefore would not increase traffic volumes along the project route or increase vehicle miles traveled. Roadway and drainage rehabilitation would not alter the existing highway alignment or capacity of U.S. 101. According to the Caltrans Technical Analysis under the CEQA (2020), rehabilitation, replacement, and repair projects designed to improve the conditions of existing transportation assets and that do not add additional motor vehicle capacity are not likely to lead to a measurable and substantial increase in vehicle travel.

Improvements associated with the Build Alternative would not conflict with any existing or planned transportation-related plans, programs, or facilities in the region because the project would rehabilitate existing drainage systems. The project is included in the adopted Association of Monterey Bay Area Governments Metropolitan Transportation Improvement Program for Federal Fiscal Year 2020-2021 to Federal Fiscal Year 2023-2024. The project is proposed for funding under the Roadway Preservation Program and programmed in the State Highway Operation and Protection Program.

No changes to the existing highway or adjoining roadway alignments, capacities (number of lanes or lane widths), or design features would be involved with the improvements; therefore, no design-related hazards or incompatible uses would be generated.

Considering the information provided above and in Section 1.4.1, Build Alternative, 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

Within the project limits, U.S. 101 is a four-lane divided highway with 12-foot-wide travel lanes. The existing median is not paved within the project limits; it varies from 35 feet to 60 feet in width. The inside shoulder width is generally 5 feet throughout, and the outside shoulder varies from 8 feet to 10 feet. Local arterial and collector streets access U.S. 101 within the project limits. The route provides regional access for the public and emergency service providers traveling between Monterey County and San Luis Obispo County.

Environmental Consequences

Project construction would require approximately 150 working days over a staged, one-year construction schedule. Near work areas, temporary closure and/or modification of lanes and ramps along affected portions of U.S. 101 would result. However, two-way flow would remain open throughout construction with the implementation of Caltrans' Standard Specifications (Sections 12-1 through 12-7), Standard Special Provisions that pertain to traffic management and control, and through the implementation of a Transportation Management Plan prepared specifically for the project route and setting conditions.

Traffic control during construction would be handled by changeable message signs, construction area signs, and lane closures. During the hours of construction, there would be intermittent single lane closures. Due to the location of the project, bicycle accommodations would be required during construction. Lane and ramp closure charts would be provided during the project's final design stage. The project would not result in full freeway closures.

The Caltrans Construction Manual requires, whether permanent or temporary, restoration of access as soon as possible without waiting for the work to be completed past all the nearby access points. In accordance with the Caltrans Construction Manual (2022, Section 3-702A), the project's construction contractor would provide for the convenience of the public and public traffic. Section 7-1.03, "Public Convenience," of the Standard Specifications requires that operations present the least possible obstruction and inconvenience to the public. The "least possible obstruction and inconvenience" will always depend on a judgment. Ultimately, the construction contractor for the project would use good construction industry practice, comply with specifications, and not materially diminish the degree of convenience and free passage through the area that existed before construction.

Minor delays in emergency service response times may result during construction due to periodic lane and ramp closures and/or modifications, route detours, driveway closures, and other circulation and access alterations. A Transportation Management Plan for traffic control and access during construction would minimize to the extent feasible any delays in emergency service access that could result from the necessity of activating lane closures and/or modifications and detour routes.

The Resident Engineer for the project would notify and coordinate with regional emergency service providers regarding construction-related activities to ensure that project activities would not restrict or prevent access within the project area. Access for fire/paramedic and other emergency service vehicles through the project limits would be enabled through controlled work zones by the project's construction contractor. The construction contractor would also ensure that construction activities would not block emergency service access to all interconnecting roadways and routes in the project area. Coordination with the regional transit provider would occur to provide information in advance for potential route rescheduling. The project would include Standard Specifications and Standard Special Provisions that pertain to actions and strategies that would help maintain a safe environment for construction workers and the traveling public.

The public would be notified of planned construction traffic management strategies through various methods as part of a public awareness campaign and motorist information on the project route. The public awareness campaign may include strategies such as press releases and media alerts, advertisements, Caltrans websites and other highway traffic-related internet applications, and/or a telephone hotline. Traveling motorist information may include tools such as on-highway and local street changeable message signs, construction area signs, and radio advisories. Once installed, the proposed infrastructural repairs within the project limits would not have any long-term effects on emergency access on U.S Route 101.

Avoidance, Minimization, and/or Mitigation Measures

The project would implement standard Caltrans measures, including a Transportation Management Plan, during construction. No avoidance, minimization, and/or mitigation measures are proposed.

2.1.18 Tribal Cultural Resources

Caltrans conducted Native American consultation as required under Assembly Bill 52 (Public Resources Codes 21080.3.1 and 21084.3(c)) in accordance with the California Environmental Quality Act Initial Study preparation. As noted in Section 2.1.5, Cultural Resources, of this document, there are no historic or archaeological resources within the project limits. Letters describing the proposed project were mailed to Native American tribes, individuals, and organizations on January 14, 2021. The letters initiated Section 106 consultation pursuant to the National Historic Preservation Act and formal notification of a proposed project as required under the California Environmental Quality Act, specifically Assembly Bill 52 (Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014). Caltrans did not receive any replies or requests for consultation regarding this project. Pursuant to the project's Section 106 Complete memorandum (dated May 3, 2023), cultural resource studies have been completed for this project.

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	**No Impact**
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.	**No Impact**

2.1.19 Utilities and Service Systems

According to the project's Right-of-Way Data Sheet Request Form in the Draft Project Report, a utility permit search has been completed, and utility involvement and/or relocation would not be required. Positive confirmation of utility locations would occur during the project's final design stage. Construction activities are expected to use electricity and natural gas to power equipment, tools, and vehicles as needed for the repairs and other improvements throughout the construction period (expected to be about one year). Electrical power would be provided by portable gas-powered generators. The project would rehabilitate drainage systems at selected locations within the project limits and would not cause changes in land uses or other environmental effects that would necessitate additional drainage system capacity.

In accordance with the standard procedures and measures developed by Caltrans for all highway construction projects, the construction contractor would be required to comply with all applicable federal, state, and local management and reduction statutes and regulations related to solid waste implementation. Considering the information in publicly available online records and service maps for the Local Agency Formation Commission of Monterey County, the San Ardo Water District, and the Nacimiento Water Company, 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?	**No Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**Less Than Significant Impact**
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**

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
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

Public water is not provided at the project site and is limited to the nearby communities of Bradley and San Ardo. Water for implementation of the Build Alternative would be acquired from a commercially available source that caters to construction work and has capacity to serve the project. Five landfills with capacity to serve the project's solid waste disposal needs are located within 50 miles of the project site. Public wastewater service is not provided within the project area.

Environmental Consequences

Minor amounts of water would be used for various construction activities throughout the construction period at the project locations. Water would also be needed for the establishment and periodic irrigation maintenance of landscape plantings and tree replanting mitigation areas for up to three and a half years after completion of construction. Caltrans implements water conservation elements as part of the standard procedures for landscape planting and irrigation design processes. Specifically, Caltrans highway landscape projects are required to comply with either the statewide Model Water Efficient Landscape Ordinance or local ordinances for water conservation where applicable.

The landscape planting and irrigation design for the project's replacement plantings would include methods to minimize potable usage for supplemental irrigation for plant establishment, such as use of recycled, non-potable water where available, drip irrigation, and low-water-use plant species that are suitable for the micro-climates of the landscape areas. Caltrans landscape planning applies a goal of a 50 percent reduction in water usage from the year 2013, in accordance with the requirements of California executive orders issued under the administration of Governor Edmund G. Brown Jr. Therefore, the project would be expected to have sufficient water supplies to support project restoration landscaping in the long term during dry or multiple dry years through the use of efficient and minimal water usage practices and would not substantially reduce local and regional water supplies.

Construction activities would generate minor amounts of solid waste that would not overwhelm the capacity of existing waste management facilities in the project area. Recyclable materials would be recycled, and waste materials would be disposed of in accordance with all state and federal requirements.

No sewage facilities or services would be affected by or needed for the project construction activities or for long-term maintenance of the project's drainage and other infrastructural improvements. Sewage services for workers during construction would be temporary and managed through portable toilets that would be periodically emptied by pump trunks. Sewage would be transported to an offsite location that is permitted for sewage disposal and subsequent processing. Therefore, the project would not substantially affect wastewater treatment in the local project area and the region because construction activities would be minor and short term.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are proposed.

2.1.20 Wildfire

Considering the information in the California Department of Forestry and Fire Protection (CalFire) Fire Hazard Severity Zone Map for Monterey County, 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

Most of the project site goes through fire-susceptible rural residential areas and open spaces with woodland, scrub, and grassland vegetation. In recent years, California has experienced unprecedented drought conditions that typically further increase the potential for accidental fire hazard events. According to the Caltrans Climate Change Vulnerability Assessment for District 5, the fire severity levels for the project and surrounding region are forecast to increase over the century due to climate change factors.

However, based on the CalFire Very High Fire Hazard Severity Zones in Local Responsibility Area map, the project site is not within a Very High Fire Hazard Severity Zone in a Local Responsibility Area. Also, based on the CalFire Very High Fire Hazard Severity Zones in State Responsibility Area map, the project site is not within a Very High Fire Hazard Severity Zone in a State Responsibility Area. According to the California Department of Forestry and Fire Protection's Fire Hazard Severity Zone Map for Monterey County, the project site is in a High Fire Hazard Zone, and the nearest Very High Fire Hazard Zone is 1.5 miles to the west.

Environmental Consequences

Since the project site is not within a Very High Fire Hazard Severity Zone, it is highly unlikely that wildfire risks would result from construction activities. Also, the project is not anticipated to result in permanent impacts related to exacerbation of fire hazards because the project would rehabilitate and replace existing roadway infrastructure and would not include the extension of infrastructure through an area that is subject to high fire risk. No impacts would occur in this regard.

In addition, the project would not alter existing drainage patterns or potentially increase downstream flooding or landslides because the culverts to be replaced would be essentially in the same locations as the existing drainage pipes. Design standards would be implemented in accordance with the roadway and hydraulic and topographical conditions at each culvert location to control runoff and ensure slope protection. In addition, Best Management Practices for stormwater management would be implemented as part of Caltrans' standard procedures and measures during construction activities and post-construction activities (see also the discussions in Section 2.1.9,

Hazards and Hazardous Materials, and Section 2.1.10, Hydrology and Water Quality).

During construction, vegetation removal would be necessary at some of the culvert locations to enable access by construction equipment, vehicles, and supplies to the work sites. The project would implement Caltrans' Standard Specifications for fire prevention and safety as precautionary measures to prevent fire-related incidents during construction in accordance with the California Division of Occupational Safety and Health's Construction Safety Orders, Fire Protection and Prevention Guidance. Vegetation removal would be planned and conducted using techniques to avoid and minimize unintentional fire hazards.

Construction of the improvements is expected to necessitate temporary lane and ramp closures or other lane modifications and construction site strategies to maintain traffic access along U.S. 101. As discussed in Section 2.1.17, Transportation, it is expected that at least one lane in each direction would always be maintained and open for traffic access during lane closures as configurations allow.

Any full-closure locations, roadway instructional signage, and/or detour routes would be determined as necessary in the Transportation Management Plan that would be implemented during the construction phase (see also Section 1.4.1, Build Alternative). Travel lane closures or reversible one-lane direction control in the construction work locations would occur at nighttime when traffic levels are lower than the daytime peak periods. Access for emergency vehicles would be maintained along U.S. 101 in the project limits during construction as specified in the Transportation Management Plan, and therefore the project would not impair an emergency response plan or evacuation plan. No long-term effects on emergency response or evacuation plans would occur after completion of project construction at the project infrastructure locations because the traffic management lane closures would be temporary during construction.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are proposed.

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**
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?	**No Impact**

Affected Environment

The project would affect environmental resources within and immediately surrounding post miles R9.2 to R22.0 on U.S. 101 along the Salinas River Valley in Monterey County. The scope of the project would be limited to rehabilitating and upgrading existing roadway infrastructure within the project limits. Related functions for project construction would include the use of staging areas for equipment and materials, and temporary construction easements at selected properties outside of the state highway right-of-way.

Environmental Consequences

Overall, the project is not expected to substantially degrade the quality of the environment. The project would have minimal impacts upon the environment. Project-related impacts to biological resources would be temporary and are considered less than significant with the incorporation of mitigation for waters of the State and the San Joaquin kit fox. Therefore, the project would not

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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. Also, the project would not impact any known archaeological or historic era resources and therefore would not eliminate any important examples of the major periods of California history or pre-history.

Air quality for the project region, with regard to airborne particulate emissions, is considered to be in a state of poor health. As noted in Section 2.1.13, Air Quality, the project falls within the North Central Coast Air Basin, which is considered in non-attainment for California air quality standards for airborne particulate matter less than 10 microns in diameter. The project impacts to air quality would be limited in scope and duration and would result from construction and earthwork associated with the project. Fugitive dust and construction emissions are expected to be well within the local air district's daily thresholds for the project. Engineering design and robust storm water Best Management Practices would be implemented and as a result, minimal short-term air quality impacts are anticipated, including impacts to greenhouse gas emissions. For these reasons, the project's cumulative impacts to air quality would be less than significant.

The San Joaquin kit fox is a species that is considered in poor health and subject to decline. The Federal Endangered Species Act Section 7 effects determination is that the project may affect, but is not likely to adversely affect, the San Joaquin kit fox. The basis for this determination is that San Joaquin kit foxes have not been observed in the project vicinity in recent years and the project would implement standardized recommendations as mitigation measures to protect the species during construction. Since impacts would be temporary and take is not expected, cumulative project impacts to the San Joaquin kit fox would be less than significant with mitigation.

Since the 19th and 20th centuries, the watersheds that encompass the region have undergone substantial changes due to agricultural conversion, mineral extraction, and urbanization. These alterations have led to grading of the landscape, soil amendments, groundwater pumping, and redirection of natural freshwater systems to facilitate irrigation and drainage needs for crops. Consequently, the ecological system has been significantly degraded, no longer resembling its original natural state. While quantifiable data may be lacking, it is highly probable that the region originally possessed a much larger extent of waters of the State. Historical records suggest that California as a whole, has lost the vast majority of its original wetland resources to alternative land use. In response to this loss, regulatory agencies now require restoration and revegetation measures to offset any further depletion of wetlands and riparian habitats in projects within their respective jurisdictions. That being said, the highly modified waters of the State within the region are considered to be in poor health. However, the potential for adverse

cumulative impacts from this project to waters of the State, which are Regional Water Quality Control Board jurisdictional areas, is considered to be low considering the small amount of area that would be impacted. As noted in Section 2.1.4, Biological Resources, approximately 0.001 acre (34 square feet) of waters of the State would be temporarily impacted at post mile R14.72 during replacement of the culvert system at that location. The impacted location is highly degraded due to the presence of invasive species, channelization of stream habitats, and disruption by regular maintenance.

Some greenhouse gas emissions would occur during construction from equipment, processing of construction materials, construction vehicle use, and public vehicles idling during minor traffic delays during construction. Impacts would be less than significant in consideration of the limited scope and temporary nature of the project. However, the project would implement Standard Specifications, Best Management Practices, and the greenhouse gas reduction strategies noted in Section 2.1.8, Greenhouse Gas Emissions, as avoidance and minimization measures to further reduce greenhouse gas emissions during construction.

As noted in Section 2.1.10, Hydrology and Water Quality, the receiving water bodies in the vicinity of the project limits are the Salinas River, which is noted to be in poor health, and its associated tributary creeks. The Salinas River is impaired for benthic community effects, pH, temperature (water), toxicity, and turbidity. However, the Water Quality Technical Memo prepared by Caltrans for the project noted that the project has no potential to directly discharge storm water within the project limits into the above identified receiving water bodies. The Salinas River does not intersect the roadway, but some of its tributary creeks do. However, by incorporating appropriate engineering design and robust storm water Best Management Practices during construction, minimal short-term water quality impacts are anticipated. These would be included as part of a Storm Water Pollution Prevention Plan, a document used to manage erosion from disturbed soil areas and control runoff. Cumulative project impacts to water quality would be less than significant.

In conclusion, the project would not have cumulatively considerable effects on the environmental resources of the project study area and vicinity in consideration of past, current, and reasonably foreseeable future projects with implementation of Standard Specifications, Special Standard Provisions, Best Management Practices, avoidance and minimization measures, and mitigation measures as noted in this document. Also, the project does not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. All impacts would either be less than significant or less than significant with the incorporation of mitigation.

Avoidance, Minimization, and/or Mitigation Measures

No additional avoidance, minimization, and/or mitigation measures are proposed.

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS–49 | SACRAMENTO, CA 94273–0001
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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.

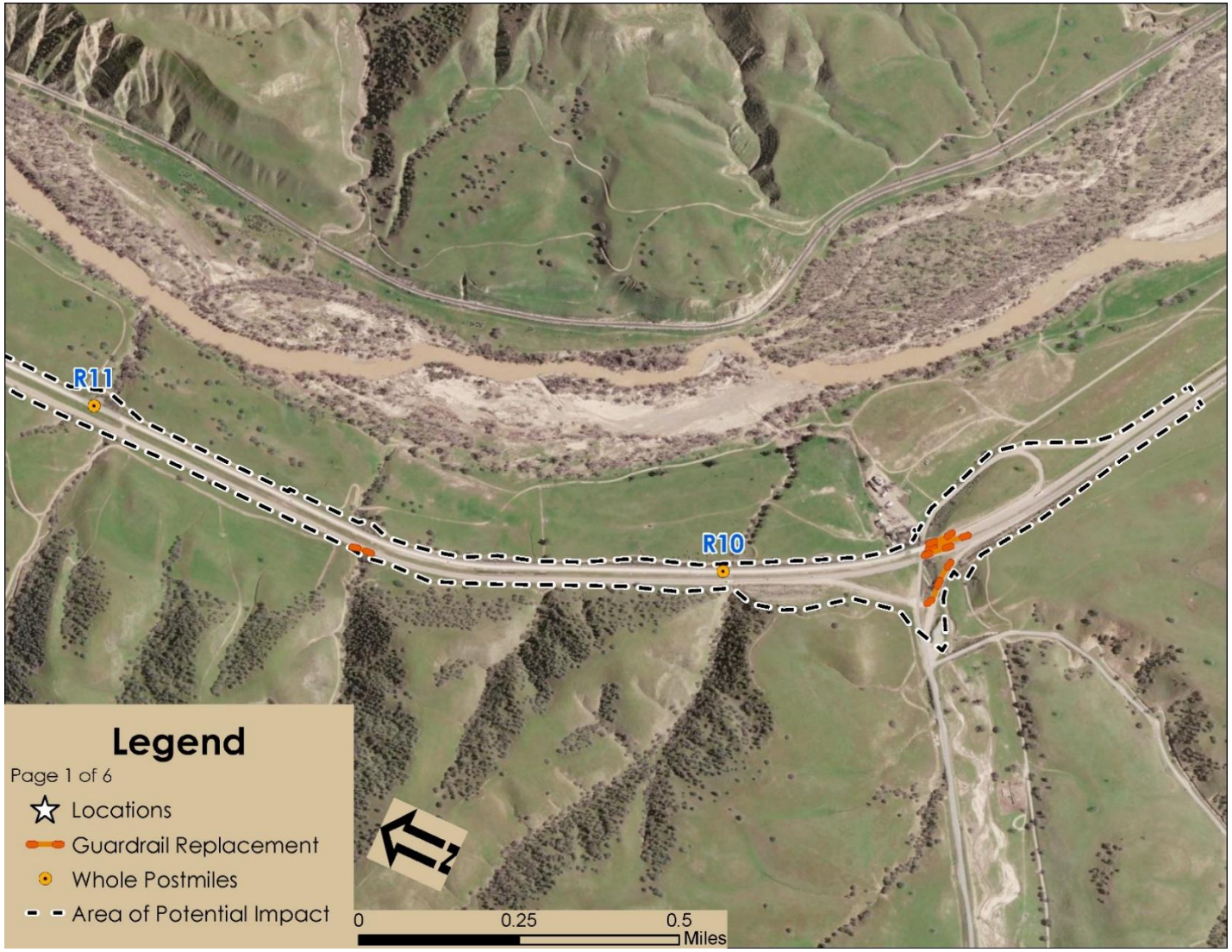
For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

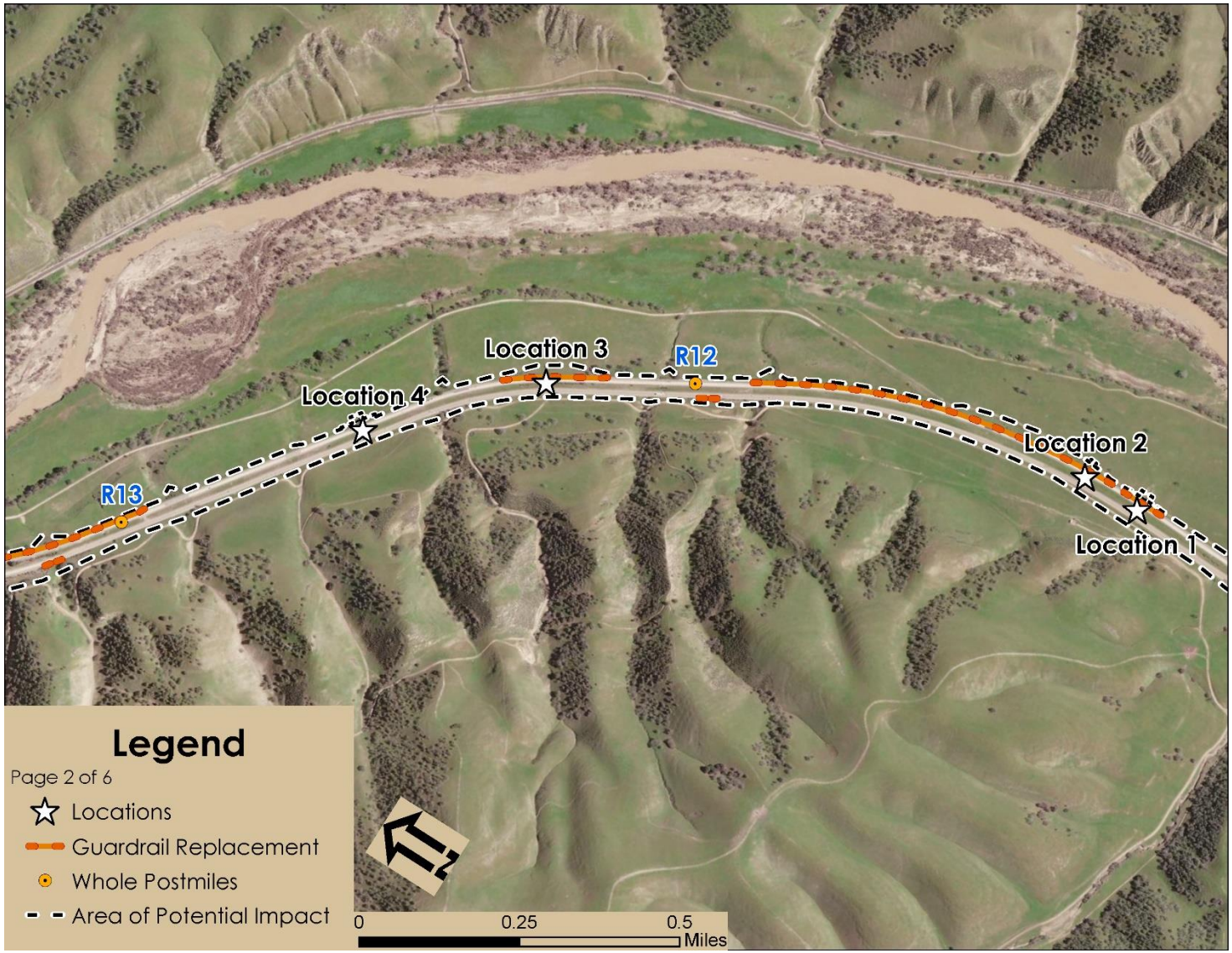
To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
Director

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

Appendix B Preliminary Project Plans

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Locations
Guardrail Replacement
Whole Postmiles
Area of Potential Impact
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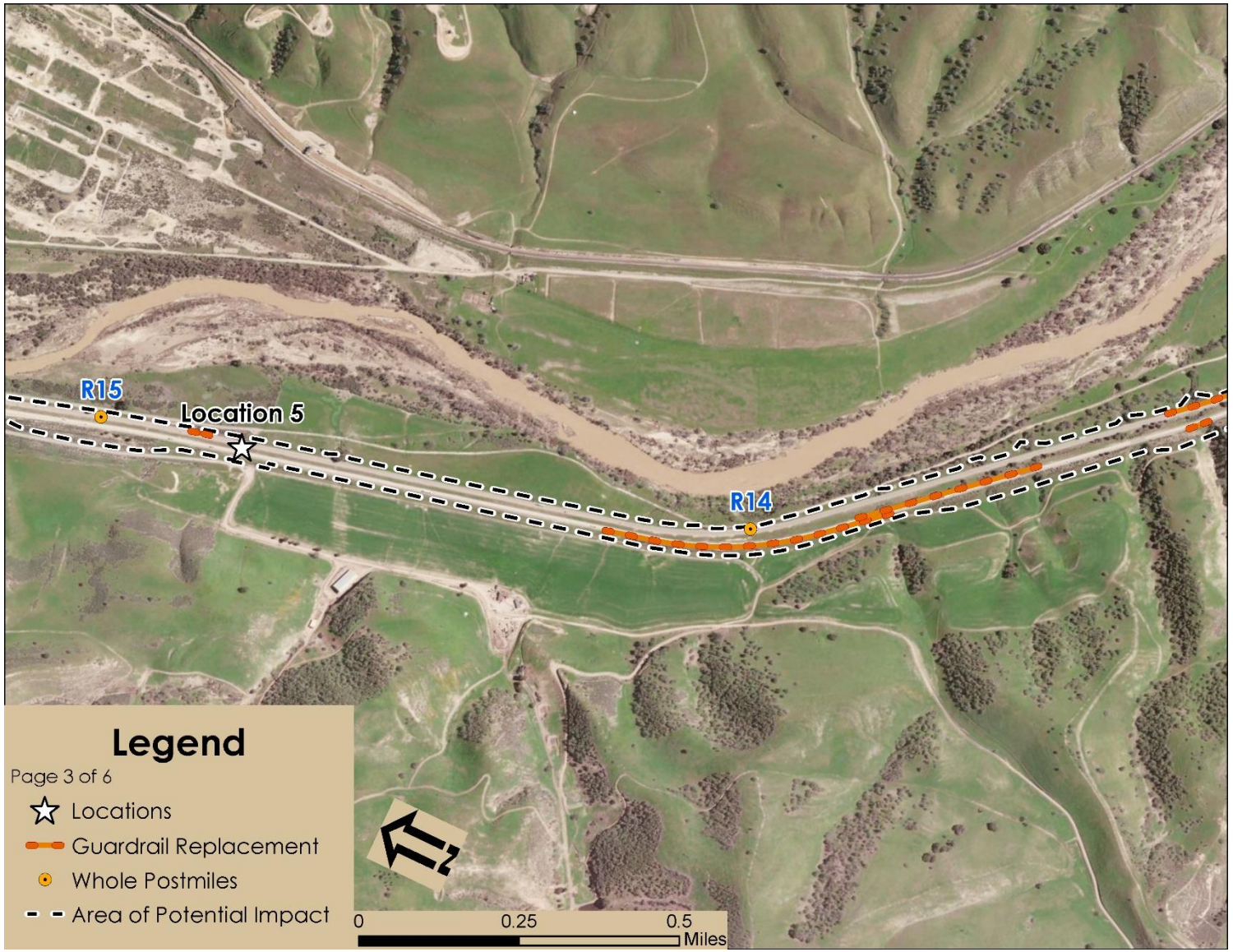
Miles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R16
Location 6
R17
Location 7
Legend
Page 4 of 6
Locations
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Whole Postmiles
Area of Potential Impact
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Miles


Location 9 R18
Legend
Page 5 of 6
Locations
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Whole Postmiles
Area of Potential Impact
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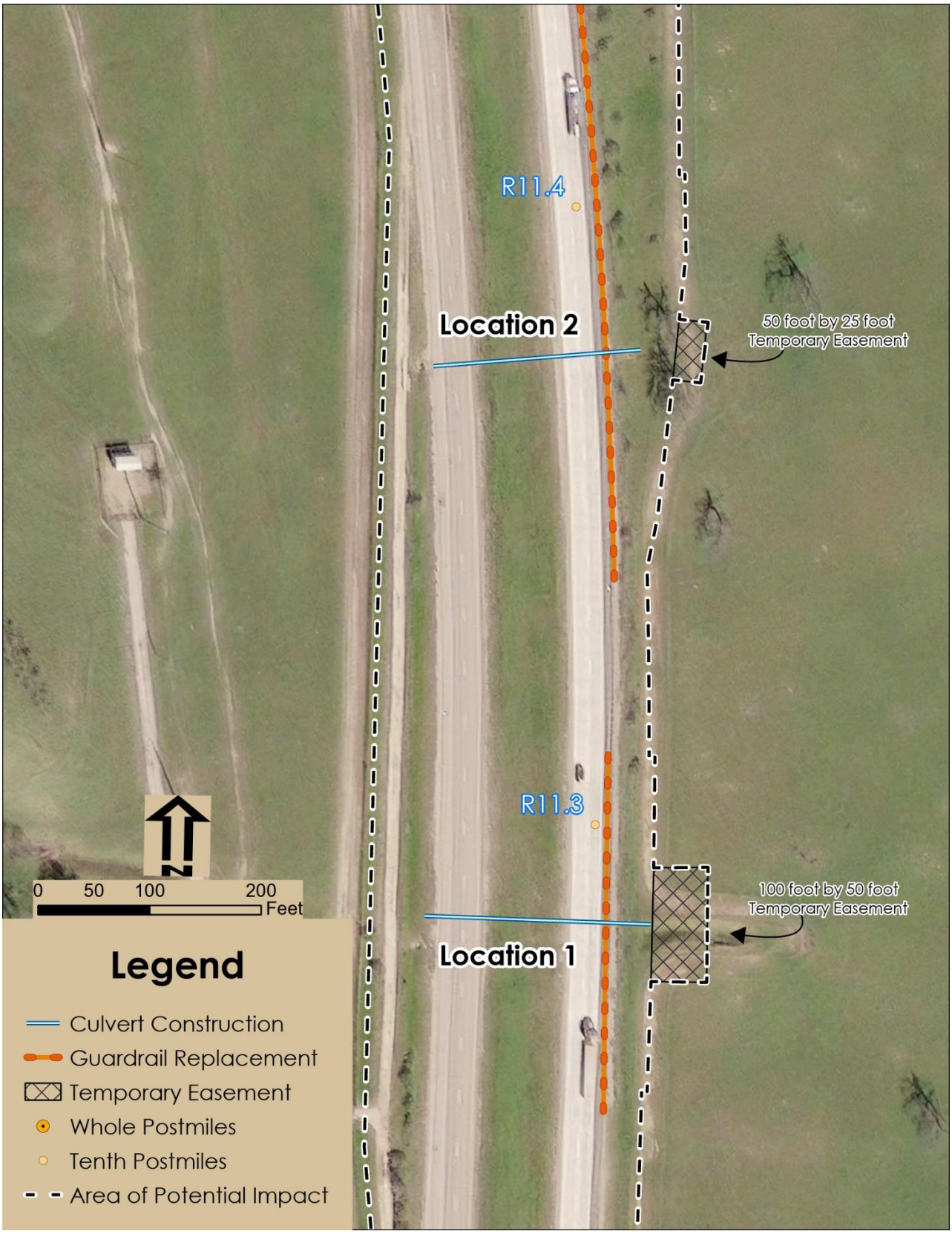
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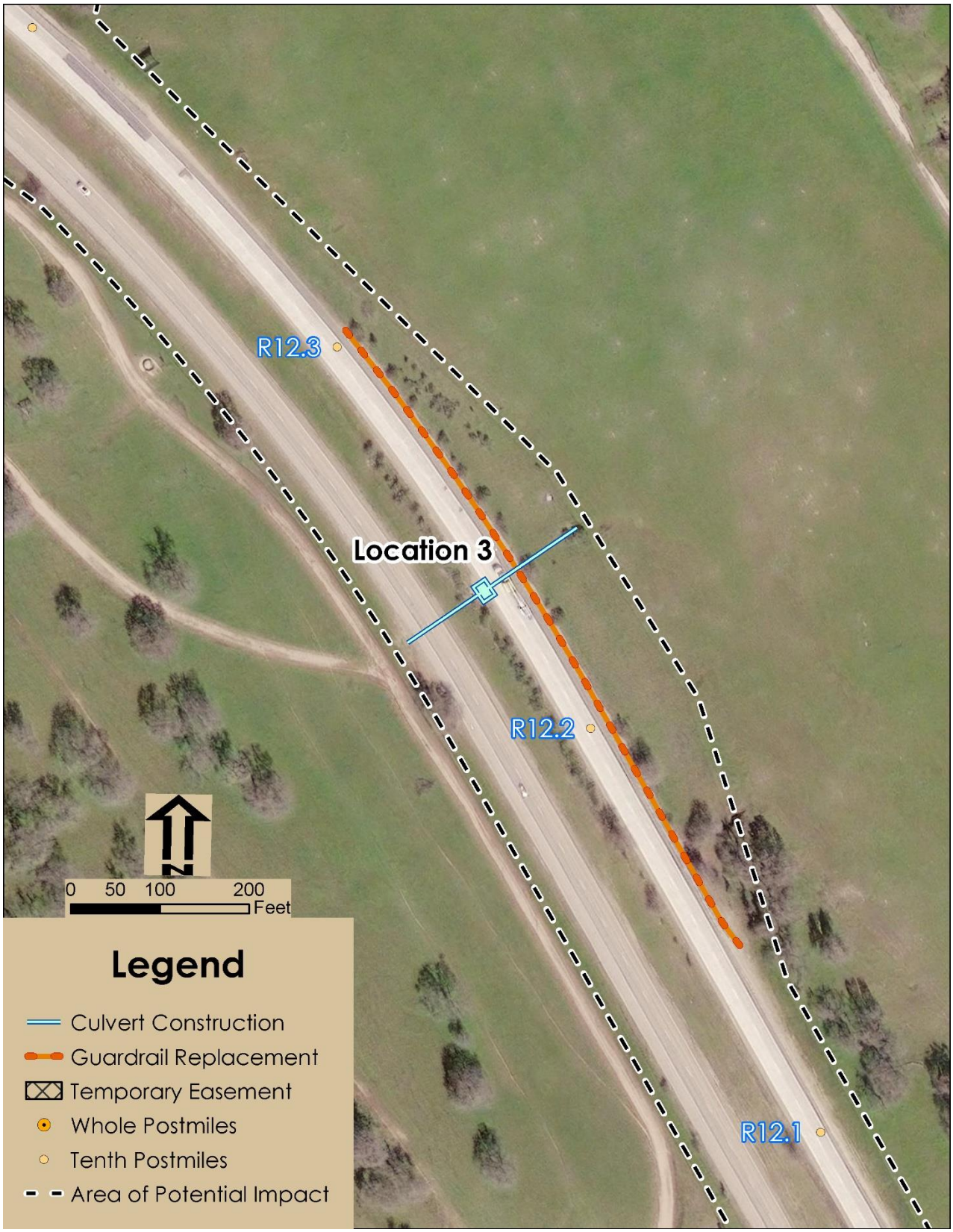
Area of Potential Impact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Tenth Postmiles
Area of Potential Impact


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R12.5
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Culvert Construction
Guardrail Replacement
Temporary Easement
Whole Postmiles
Tenth Postmiles
Area of Potential Impact


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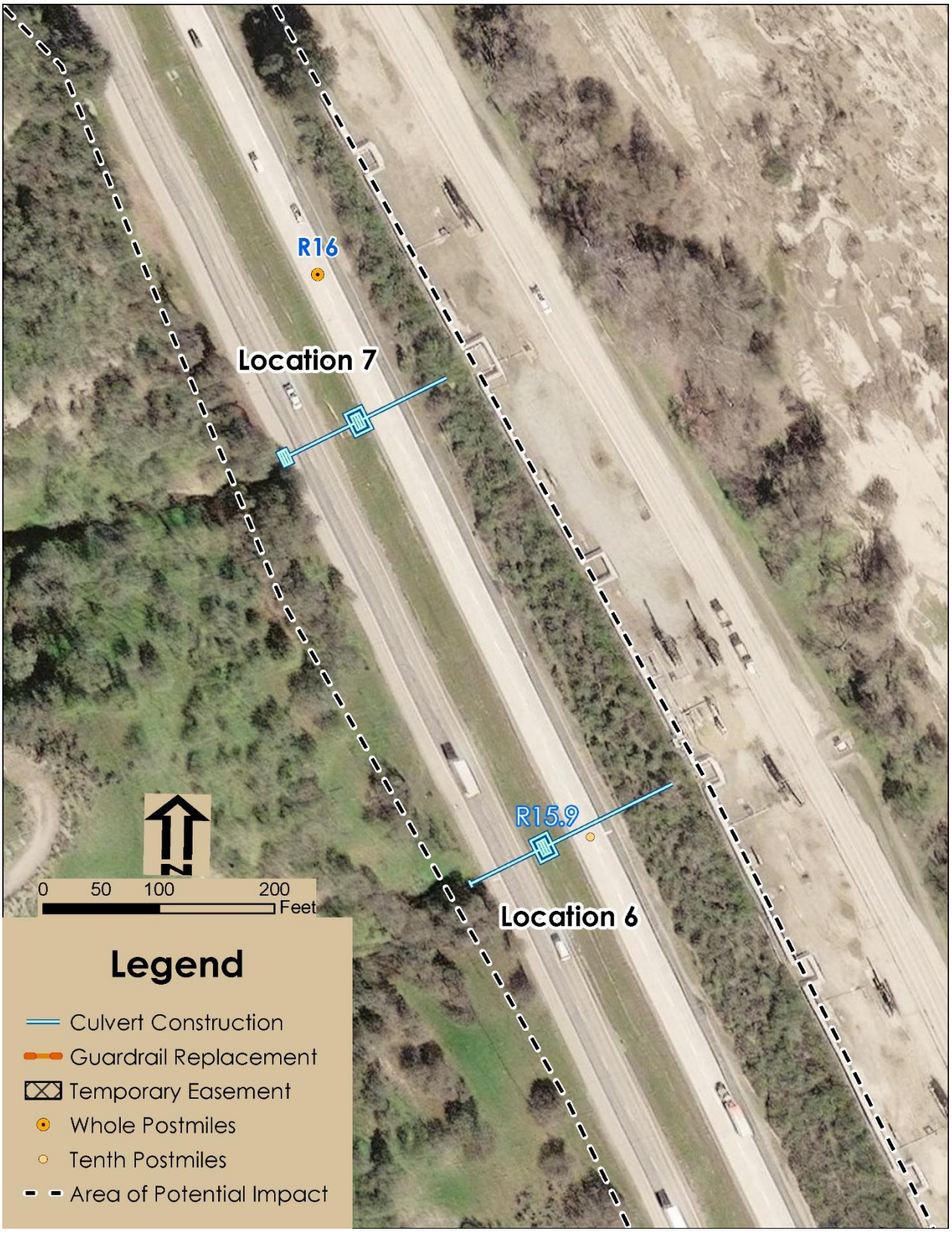
Area of Potential Impact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Tenth Postmiles
Area of Potential Impact


R16.6
R16.5
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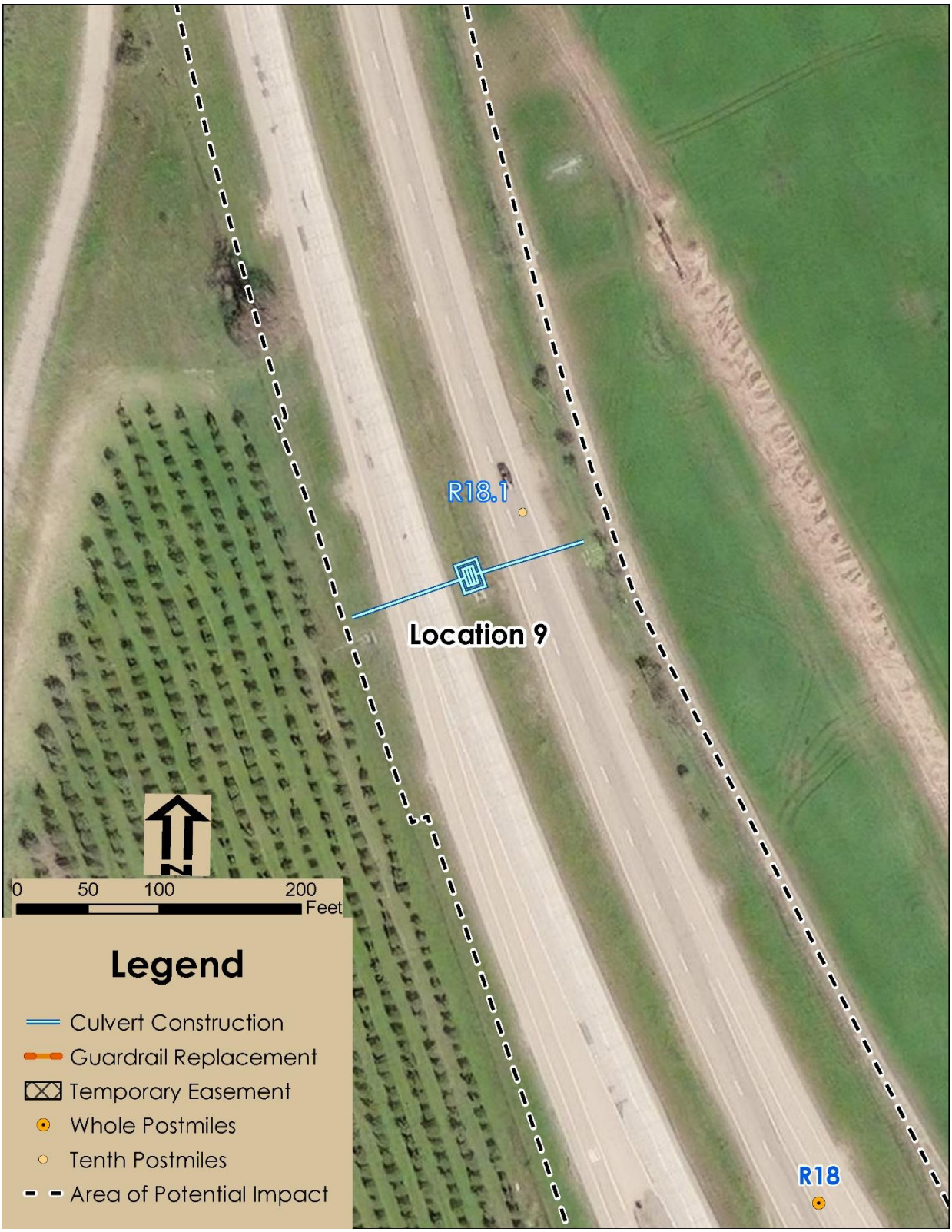
Area of Potential Impact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Tenth Postmiles
Area of Potential Impact

Appendix C Consistency with Local Plans

Policy	Build Alternative	No-Build Alternative
Monterey County General Plan, Circulation Element Policy C-4.10: *Priority shall be given to the improvement and maintenance of highways and arterial roads that carry a significant amount of people and goods movement, particularly agricultural goods.*	**Consistent—**Provides improvement and maintenance for roadway facilities and drainage systems within the project limit on U.S. 101.	**Not Consistent—**Would not make any improvements or rehabilitation of roadway facilities and drainage systems servicing U.S. 101. Continued roadway degradation and possible failure could occur.
Monterey County General Plan, Conservation/Open Space Element Policy OS-4.1: *Federal and State listed native marine and freshwater species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant shall be protected. Species designated in Area Plans shall also be protected.*	**Consistent—**The project's proposed avoidance, minimization, and mitigation measures would protect potentially impacted federal and state listed freshwater species and subspecies of birds, mammals, amphibians, reptiles, and plants, and other species listed in the applicable local area plans. No federal or state listed marine species or subspecies of birds, mammals, fish, amphibians, reptiles, plants, or freshwater fish would be impacted.	**Consistent—**No federal or state listed species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant, or species designated in the local area would be impacted.
Monterey County General Plan, Conservation/Open Space Element Policy OS-4.2: *Direct and indirect discharges of harmful substances into marine waters, rivers or streams shall not exceed state or federal standards.*	**Consistent—**Direct and indirect discharges of harmful substances would not exceed state or federal standards. Best Management Practices incorporated for this project would avoid and minimize any discharges of harmful substances into nearby streams and rivers.	**Not Consistent—**Drainage systems would not be rehabilitated, and culverts would further deteriorate. Future roadway failure could result and discharge material, with the potential to contain harmful substances, into nearby streams and rivers.

Policy	Build Alternative	No-Build Alternative
MCGP, Conservation Element OS-5.6: *Native and native compatible species, especially drought resistant species, shall be utilized in fulfilling landscaping requirements.*	**Consistent—**Replacement plantings would include aesthetic considerations as well as the inherent biological goals. Revegetation would include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture Branch.	**Consistent—**No replacement plantings would be required.
Monterey County General Plan, Conservation/Open Space Element Policy OS-5.18: *Prior to disturbing any federal or state jurisdictional areas, all applicable federal and state permitting requirements shall be met, including all mitigation measures for development of jurisdictional areas and associated riparian habitats.*	**Consistent—**All applicable federal and state permitting requirements would be met prior to disturbing any federal or state jurisdictional areas. Mitigation measures would adhere to the requirements and schedules stipulated by the approved conditions as stipulated by the permitting agency.	**Consistent—**No permits would be required.
Monterey County General Plan, Safety Element Policy S-3.2: *Best Management Practices to protect groundwater and surface water quality shall be incorporated into all development.*	**Consistent—**Standard provisions and Best Management Practices would be implemented by the contractor during excavation, dewatering, and other construction activities for avoidance and minimization of impacts to surface water and groundwater quality.	**Consistent—**No development would occur.
Monterey County General Plan, Safety Element Policy S-7-10: *Construction projects shall include the following standard noise protection measures:* • *Construction shall occur only during times allowed by ordinance/code unless such limits are waived for public convenience;*	**Not Applicable—**Caltrans follows state and federal guidelines to ensure consistency across the state. However, the state standards are very similar to the local standards and include the following standard noise protection measures: • Standard Specifications Section 14-8.02 would be implemented, which requires the construction contractor to control and	**Not Applicable—**Caltrans follows state and federal guidelines to ensure consistency across the state. Furthermore, no additional noise would be generated.

Policy	Build Alternative	No-Build Alternative
• *All equipment shall have properly operating mufflers; and* • *Lay-down yards and semi-stationary equipment such as pumps or generators shall be located as far from noise-sensitive land uses as practical.* Monterey County Code, Chapter 10.60 Noise Control, Section 10.60.030: *At any time of day, it is prohibited within the unincorporated area of the County of Monterey to operate, allow, or cause to be operated any machine, mechanism, device, or contrivance which produces a noise level that exceeds eighty-five (85) A-Weighted Decibels measured fifty (50) feet therefrom. The prohibition in this section shall not apply to aircraft nor to any such machine, mechanism, device or contrivance that is operated in excess of two thousand five hundred (2,500) feet from any occupied dwelling unit.* Monterey County Code, Chapter 10.60 Noise Control, Section 10.60.034 (Ordinance 5315): *The following regulations shall apply to nighttime noise:* *A. It is prohibited within the unincorporated area of the County of Monterey to make, assist in making, allow, continue, create, or cause to be made any loud and unreasonable sound any day of the week from 9:00 p.m. to*	monitor construction noise and not to exceed 86 A-weighted decibels at 50 feet from the work site from 9:00 p.m. to 6:00 a.m. Whenever possible, construction work would be conducted during the day when work is near sensitive receptors. If nighttime construction activities are necessary, the noisiest and/or most vibratory construction activities near residences would be conducted as early in the evening as possible. • Use of newer equipment that is quieter and has the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational would be required. • Portable generators, air compressors, and other similar equipment, would be located as far away from sensitive noise receptors as feasibly possible. The grouping of major pieces of equipment operating in one area would be limited to the greatest extent feasible. (No lay-down yards are proposed.)	

Policy	Build Alternative	No-Build Alternative
7:00 a.m. the following morning. *B. Within the time period from 9:00 p.m. to 7:00 a.m. the following morning, and for the purposes of this Section, a loud and unreasonable sound shall include any sound that is plainly audible at a distance of fifty (50) feet in any direction from the source of the sound or any sound that exceeds the exterior noise level standards set forth in Table 1 below.* **Table 1: Exterior Noise Level Standards (Nighttime Only)** • Nighttime hourly equivalent sound level of 45 decibels • Maximum level of 65 A-Weighted Decibels		
Monterey County Code, Chapter 16 Environmental. *The following tree removal activities are exempted from the provisions of this Chapter:* *A. Timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Zberg-Nejedly Forest Practices Act of 1973 (commencing with Section 45110 of the Public Resources Code).* *B. Tree removal pursuant to Public Utilities Commission General Order 95 or by governmental agencies*	**Consistent—**Caltrans, a governmental agency, is the project proponent. The project would remove trees from the public rights-of-way.	**Consistent—**No trees would be removed.

Policy	Build Alternative	No-Build Alternative
within public rights-of-way. C. *Tree removal for construction of structures, roads and other site improvements included in an approved subdivision, Use Permit or similar discretionary permit.*		

Appendix D Avoidance, Minimization and/or Mitigation Summary

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

Caltrans Standardized Measures

This project contains standard measures, standard special provisions, and Best Management Practices that are implemented on all or most Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. The following list of measures are included as project features in Chapter 1 and addressed in more detail in the Environmental Consequences sections found in Chapter 2 when appropriate.

- **7-1.02A General:** The contractor will comply with laws, regulations, orders, and decrees applicable to the project.
- **7-1.02C Emissions Reductions:** The contractor will submit a certification acknowledging compliance with emissions reduction regulations managed by the California Air Resources Board.
- **7-1.02K(6)(j)(ii) Lead Compliance Plan:** This specification requires the submittal of a plan to document a compliance program to prevent or minimize worker exposure to lead.
- **7-1.02M(2) Fire Protection:** Reserved for development of a fire prevention plan, which will minimize the risk of starting a wildfire during construction.

- **7-1.03 Public Convenience:** The contractor will work to minimize the inconvenience to the public or abutting property owners resulting from construction activities.
- **10-4 Water Usage:** This section includes specifications for the usage and conservation of water during construction.
- **12-1 through 12-7 Temporary Traffic Control:** This section includes general specifications for providing temporary traffic control.
- **13-3 Storm Water Pollution Prevention Plan:** This section includes specifications for preparing a stormwater pollution prevention plan for projects that will disturb 1 acre or more of soil.
- **13-4 Job Site Management:** This section includes specifications for performing job site management work such as spill prevention and control, material management, waste management, non-stormwater management, and dewatering activities.
- **13-5 Temporary Soil Stabilization:** This section includes specifications for placing temporary soil stabilization materials on stockpiles or disturbed soil areas.
- **13-6 Temporary Sediment Control:** This section covers specifications for installing temporary sediment controls, such as check dams and drainage inlet protections.
- **13-9 Temporary Concrete Washouts:** This section covers specifications for installing temporary concrete washouts to receive and dispose of concrete waste.
- **13-10 Temporary Linear Sediment Barriers:** This section covers specifications for installing temporary linear barriers to control sediment.
- **14-1.02 Environmentally Sensitive Area:** Caltrans will mark areas that are environmentally sensitive. These areas cannot be entered unless authorized. If an Environmentally Sensitive Area is breached, work near the area will stop immediately, and the Resident Engineer will be notified.
- **14-2.03 Archaeological Resources:** If archaeological resources are discovered within or near the construction limits, the resources will not be further disturbed, and all work near the discovery will stop immediately. The area will be secured, and the Resident Engineer notified.
- **14-6.03 Species Protection:** This specification includes instructions for the protection of regulated species and their associated habitat, including migratory and nongame birds. If a protected species is discovered, work will

stop near the discovery, and the engineer will be notified so that Caltrans biologists could investigate the discovery and take appropriate action.

- **14-7.03 Discovery of Unanticipated Paleontological Resources:** If unanticipated paleontological resources are discovered, the resources will not be further disturbed, and all work near the discovery will stop immediately. The area will be secured, and the Resident Engineer notified.

- **14-8.02 Noise Control:** Noise from work activities will be controlled and monitored. Noise will not exceed 86 decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

- **14-9.02 Air Pollution Control:** The project will comply with applicable air pollution control rules, regulations, ordinances, and statutes.

- **14-10.02 Solid Waste Disposal and Recycling Report:** The types and amounts of solid waste taken to or diverted from landfills or reused on the project will be tracked and reported on each calendar year.

- **14-11.03 Hazardous Waste Management:** This specification outlines the procedures for the handling, storage, transport, and disposal of hazardous waste, which will comply with 22 California Code of Regulations Division 4.5.

- **14-11.04 Dust Control:** Excavation, transportation, and handling of material containing hazardous waste or contamination must result in no visible dust migration. When clearing, grubbing, and performing earthwork operations in areas containing hazardous waste or contamination, a water truck or tank will be provided on the job site.

- **14-11.06 Contractor-Generated Hazardous Waste:** This specification provides instructions to the contractor for the management of hazardous wastes that may be generated during construction, such as petroleum materials, paints, stains, and wood preservatives. Instructions for the management of contaminated soils that may be created due to accidental leaks or spills are also included.

- **14-11.08 For Regulated Material Containing Aerially Deposited Lead:** This specification provides instructions to the contractor for the handling, management, and disposal of regulated material containing aerially deposited lead.

- **14-11.09 For Minimal Disturbance of Regulated Material Containing Aerially Deposited Lead:** This specification is reserved for providing instructions to the contractor for the minimal disturbance of regulated material containing aerially deposited lead.

- **14-11.14 Treated Wood Waste:** Includes specifications for handing, storing, transporting, and disposing of treated wood waste.

- **19-2.03B Surplus Material:** This section requires authorization by Caltrans before disposing of surplus materials or using it for fill.

- **36-4 Residue Containing Lead from Paint and Thermoplastic:** For work involving residue from grinding and cold planing that contains lead from paint and thermoplastic.

- **84-9.03C Remove Traffic Stripes and Pavement Markings Containing Lead:** This specification includes instructions for the removal of yellow traffic stripe if the stripe will be removed using a cold-plane or grinding operation.

- **Transportation Management Plan:** A standard measure implemented on every Caltrans project that prescribes specific lane closures, detour routes, public information programs, and other procedures to manage traffic flow through project work areas during construction periods. See also Section 1.4.1, Build Alternative, for additional information.

Project Measures

Aesthetics

The following measures would be included to further reduce effects to visual resources:

- **AES-1:** As much existing vegetation as possible would be preserved. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible would be employed.

- **AES-2:** All disturbed areas would be revegetated with native plant species appropriate to each specific work location.

- **AES-3:** Replacement planting would include aesthetic considerations as well as the inherent biological goals. Revegetation would include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architecture.

- **AES-4:** All visible concrete drainage elements including but not limited to headwalls, drain inlet aprons, et cetera, would be colored to blend with the surroundings and reduce reflectivity. The specific colors of these concrete elements would be determined by Caltrans District 5 Landscape Architecture.

- **AES-5:** If vegetation control under guardrail is deemed necessary, then a natural material such as shale would be used. The selection of the vegetation control material and/or color would be determined and approved by District 5 Landscape Architecture.

- **AES-6:** Paving beyond the gore would include aesthetic treatment to be determined and approved by District 5 Landscape Architecture.

- **AES-7:** Following construction, the contractor would re-grade and re-contour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

Biological Resources

Jurisdictional Areas

The following measures would be implemented as avoidance and minimization and compensatory mitigation to reduce potential impacts to jurisdictional areas resulting from the project:

- **BIO-1:** Prior to construction, Caltrans would obtain a Waste Discharge Permit from the Regional Water Quality Control Board. All permit terms and conditions would be incorporated into construction plans and implemented.

- **BIO-2:** Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing would be installed around jurisdictional features and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas would be noted on design plans and delineated in the field prior to the start of construction activities.

- **BIO-3:** Construction activities in jurisdictional waters would be timed to occur between June 1 and October 31 in any given year, or as otherwise directed by the regulatory agency, when the surface water is likely to be dry or at a seasonal minimum. Deviations from this work window would be made only with permission from the relevant regulatory agencies.

- **BIO-4:** During construction, all project-related hazardous materials spills within the project site would be cleaned up immediately. Readily accessible spill prevention and cleanup materials would be kept by the contractor onsite at all times during construction.

- **BIO-5:** During construction, erosion control measures would be implemented. Silt fencing (or equivalent), fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional areas. 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 would conform to Best Management Practices. At a minimum, all equipment and vehicles would be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.

- **BIO-7:** All refueling, maintenance and staging of non-stationary equipment and vehicles would occur at least 100 feet from jurisdictional areas and not in a location from where a spill would drain directly toward aquatic habitat. If stationary equipment must be refueled within 100 feet of jurisdictional areas, secondary containment Best Management Practices would be implemented.

All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- **BIO-8 (Mitigation Measure):** Temporary impacts to jurisdictional wetlands would be restored at a 1-to-1 ratio (acreage).

Coast Horned Lizard and San Joaquin Coachwhip

The following measures would be implemented to reduce potential impacts to the coast horned lizard and San Joaquin coachwhip resulting from the project:

- **BIO-9 (Mitigation Measure):** Prior to construction, a qualified biologist would 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 would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

- **BIO-10 (Mitigation Measure):** The project plans would 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 be permitted.

San Joaquin Kit Fox

The following measures would be implemented as mitigation, in accordance with the project's Biological Opinion, to reduce potential impacts to the San Joaquin kit fox resulting from the project:

- **BIO-11 (Mitigation Measure):** Project employees would be directed to exercise caution when commuting within listed species habitats. A 20-mile-per-hour speed limit would be observed in all project areas, except on county roads and state and federal highways. Cross-country travel by vehicles would be prohibited outside of the project area unless authorized by the U.S. Fish and Wildlife Service. Project employees would be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

- **BIO-12 (Mitigation Measure):** Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees would attend an employee education program conducted by a Caltrans or U.S. Fish and Wildlife Service-approved biologist. The program would consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology and legislative protection, and measures to avoid impacts to the species during project implementation.

- **BIO-13 (Mitigation Measure):** A litter control program would be initiated at each project site. No pets or firearms (except for law enforcement officers and security personnel) would be allowed onsite.

- **BIO-14 (Mitigation Measure):** Excavations deeper than 2 feet would 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 would be inspected thoroughly before being filled.

- **BIO-15 (Mitigation Measure):** All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater stored on the construction site overnight would 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 would 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-16 (Mitigation Measure):** The Resident Engineer or their designee would be responsible for implementing these conservation measures, and the Caltrans biologist would represent the point of contact for the project.

- **BIO-17 (Mitigation Measure):** Restoration and vegetation work would use California endemic plant materials from onsite or local sources. Loss of soil from runoff or erosion would be prevented using fiber rolls or similar material and by implementing the Best Management Practices from the Caltrans National Pollutant Discharge Elimination System statewide storm water permit.

- **BIO-18 (Mitigation Measure):** Prior to any ground disturbance in suitable habitat, a preconstruction survey would be conducted for the San Joaquin kit fox. The preconstruction survey would 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 would identify any potential kit fox dens. The status of all potential dens would be determined and mapped. Potential dens would be monitored with tracking medium for three days to determine the current use. If no kit fox activity is observed during this period, then the den would be excavated by hand or carefully with equipment provided by the contractor, under the direction of the biologist to preclude subsequent use. If kit fox activity is observed at a den, Caltrans will contact the U.S. Fish and Wildlife Service for further coordination.

- **BIO-19 (Mitigation Measure):** Written results of the preconstruction survey would be submitted to the U.S. Fish and Wildlife Service within 5 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 would be

notified immediately. If the preconstruction survey reveals an active natal den or new information, Caltrans would notify the U.S. Fish and Wildlife Service immediately for further consultation.

American Badger and Salinas Pocket Mouse

The measures proposed for the San Joaquin kit fox would also serve through avoidance and minimization efforts to reduce impacts to the American badger and Salinas pocket mouse. No additional measures are proposed.

Burrowing Owl

The measures proposed for the San Joaquin kit fox would also serve through avoidance and minimization efforts to reduce potential impacts to the burrowing owl. The burrowing owl would be included in all environmental education materials. The following additional measures would be included for the burrowing owl:

- **BIO-20:** A qualified biologist would conduct pre-construction surveys for the burrowing owl within the project area, within 30 days prior to project commencement. The biologist would 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. Observations of Species of Special Concern or other special-status species would be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

- **BIO-21:** If a burrowing owl is detected within the project limits or within 250 feet of the construction activities, a buffer zone for the burrow or burrow complex would be defined. Between February 1 and September 1, the owls are presumed to be nesting, and a buffer and monitoring would be implemented to provide protection to the nest and its occupants.

Bald Eagle

In addition to the measures listed below that apply to all other nesting and migratory birds protected by the Migratory Bird Treaty Act and the California Fish and Game Code, the following measures, in accordance with the project's Biological Opinion, are specific to the bald eagle:

- **BIO-22 (Mitigation Measure):** 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), would not occur until a qualified biologist conducts a survey to determine nest activity.

  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 would not commence until the qualified biologist has determined that nesting is complete, and eagles have fledged.

- **BIO-23 (Mitigation Measure):** 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 the California Department of Fish and Wildlife, as needed, to avoid potential adverse effects.

Other Migratory and Nesting Birds

The following measures apply to all birds protected by the Migratory Bird Treaty Act and the California Fish and Game Code. The list of birds protected by these regulatory laws is extensive, and not all birds protected by these laws are included in Table 2.7. There are no formal survey protocols for most of these bird species, but the California Department of Fish and Wildlife typically requires preconstruction nesting bird surveys and avoidance of impacts to active bird nests.

- **BIO-24:** Prior to construction, vegetation removal would 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 would 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 would implement an appropriate buffer or monitoring strategy based on the habits and needs of the species. The buffer area or monitoring strategy would be implemented until a qualified biologist has determined that juveniles have fledged or nesting activity has otherwise ceased.

- **BIO-25:** During construction, active bird nests would not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and the California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time.

- **BIO-26:** Trees to be removed would be noted on design plans. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing would be installed around the dripline of trees to be protected within project limits.

- **BIO-27:** All clearing/grubbing and vegetation removal would be monitored and documented by a qualified biologist regardless of time of year.

Invasive Species

The following avoidance and minimization measures would be implemented to reduce the risk of impacts related to invasive species propagation:

- **BIO-28:** During construction, Caltrans would ensure that the spread or introduction of invasive exotic plant species would be avoided to the maximum extent possible.

- **BIO-29:** Only clean fill would be imported. When practicable, invasive exotic plants in the project site would be removed and properly disposed of. Any plant species rated as "High" on the Cal-IPC Invasive Plant Inventory that are removed from the construction site would be taken to a landfill to prevent the spread of invasive species.

- **BIO-30:** Plant species that the Cal-IPC, California Department of Agriculture, the California Department of Fish and Wildlife, or other resource organizations consider to be invasive or potentially invasive would not be used in erosion control seed mix or to revegetate areas of disturbance. Caltrans erosion control mix would contain only native species to the Central Coast of California.

- **BIO-31:** Construction equipment would be inspected as "weed-free" by Caltrans before entering the construction site. If necessary, wash stations onsite would 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.

Greenhouse Gas Emissions

In addition to minimization measures prescribed in Section 2.1.1, Aesthetics, and Section 2.1.4, Biological Resources, for tree and vegetation replanting, the following greenhouse gas reduction strategies would be implemented as avoidance and minimization measures to further offset greenhouse gas emissions during construction:

- **GHG-1:** As feasible, the construction contractor would reduce construction waste and maximize the use of recycled materials, including but not limited to stockpiling pavement grindings for future use, salvaging rebar from demolished concrete, and processing waste to create usable fill (that is, crushing concrete for aggregate base).

- **GHG-2:** The construction contractor would operate construction equipment with improved fuel efficiency by:

    - Properly tuning and maintaining equipment, when feasible.
    - Using the right-sized equipment for the job, as feasible.
    - Using solar-powered equipment, when feasible.
    - Using Tier 4 equipment (applicable for manufacturers that create fuel-efficient engines), when feasible.
    - Using alternative fuels such as renewable diesel, as feasible.

- Producing hot mix asphalt with warm mix technology, as feasible.
- Recycling of non-hazardous waste and excess materials, when feasible, to reduce disposal offsite.

Noise

The following general measures would be implemented, as appropriate, to further minimize temporary construction noise impacts:

Equipment Noise Control

- **NOI-1:** The construction contractor would develop a Noise Control Plan and submit it to Caltrans District 5 noise staff for review. District noise staff would be responsible for obtaining nonstandard special provisions addressing any necessary requirements of the Noise Control Plan.
- **NOI-2:** The construction contractor would shield loud pieces of stationary construction equipment if complaints are received.
- **NOI-3:** The construction contractor would locate portable generators, air compressors, and other similar equipment as far away from sensitive noise receptors as feasibly possible.
- **NOI-4:** The construction contractor would limit the grouping of major pieces of equipment operating in one area to the greatest extent feasible.
- **NOI-5:** The construction contractor would use newer equipment that is quieter and would ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational. The construction contractor would equip internal combustion engines used for any purpose on or related to the job with a muffler or baffle of a type recommended by the manufacturer.
- **NOI-6:** The Resident Engineer for the project would ensure that, whenever possible, construction work is conducted during the day when work is near sensitive receptors. If nighttime construction activities are necessary, the noisiest and/or most vibratory construction activities near residences would be conducted as early in the evening as possible.
- **NOI-7:** The Resident Engineer for the project would consult Caltrans District 5 noise staff if complaints are received during the construction process.

Administrative Measures

- **NOI-8:** Caltrans would 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. The notice would be provided two weeks in advance and would be published in local

news media with the dates and duration of the proposed construction activities. The Caltrans District 5 Public Information Office would post notices of the proposed construction and potential community impacts after receiving notice from a Caltrans Resident Engineer.

List of Technical Studies Bound Separately (Volume 2)

Archaeological Survey Report (May 3, 2023)

Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memorandum (April 25, 2023)

Biological Opinion from U.S. Fish and Wildlife Service (October 17, 2023)

Climate Change Report (November 28, 2023)

Initial Site Assessment Memorandum (April 28, 2023)

Historic Property Survey Report (May 5, 2023)

Jurisdictional Delineation (October 31, 2022)

Location Hydraulic Study (May 1, 2023)

Natural Environment Study (June 8, 2023)

Paleontological Identification Report (April 24, 2023)

Section 106 Complete Memorandum (May 3, 2023)

Storm Water Data Report (October 9, 2023)

Visual Impact Assessment (June 9, 2023)

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

Matt C. Fowler
Environmental Branch Chief, District 5
California Department of Transportation
50 Higuera Street, San Luis Obispo, California 93401

Or send your request via email to: us101_bradley-sanardo_capm@dot.ca.gov
Or call: 805-779-0793

Please provide the following information in your request:

Project title: Bradley-San Ardo CAPM
General location information: Roadway and drainage rehabilitation within a 12.8-mile-long section of U.S. 101 in Monterey County from just south of the Jolon Road intersection near Bradley to the intersection with Paris Valley Road/Cattlemen Road near San Ardo
District number-county code-route-post mile: 05-MON-101-PM R9.2-R22.0
Project Number: 0518000213
EA: 05-1K490