Monterey 101 Drainage Improvements Project

On US 101 in Monterey County
from the Paris Valley Road Overcrossing to Dunbarton Road
05-MON-101-PM R28.23/100.3
05-1J890/0518000084

Initial Study
with Proposed Mitigated Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

July 2022

Caltrans

General Information About This Document

What's in this document:

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

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans District Office at 50 Higuera Street, San Luis Obispo, California 93401. The document can also be viewed on the Caltrans website at: https://dot.ca.gov/caltrans-near-me/district-5.

- Tell us what you think. If you have any comments regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Lara Bertaina, District 5 Environmental Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: Lara.Bertaina@dot.ca.gov.

- Submit comments by the deadline: 8/31/2022.

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.

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

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Lara Bertaina, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, CA 93401; phone number 805-779-0792 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

05-MON-101-PM R28.23/100.3
05-1J8900/0518000084

Upgrade drainage systems and other highway elements along US 101 from post miles R28.23 to 100.3 in Monterey County

INITIAL STUDY
with Proposed Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation
and
Responsible Agencies:
California Transportation Commission
California Department of Fish and Wildlife
Central Coast Regional Water Quality Control Board
Cooperating Agencies:
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service

John Luchetta
D5 Deputy District Director, Environmental Analysis
California Department of Transportation
CEQA Lead Agency

June 10, 2022
Date

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

Lara Bertaina, District 5 Environmental Division, 50 Higuera Street, San Luis Obispo, CA 93401, phone 805-779-0792

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending
District-County-Route-Post Mile: 05-MON-101-R28.23/100.3
EA/Project Number: 05-1J890/0518000084

Project Description

The California Department of Transportation (Caltrans) proposes to replace or repair multiple drainage systems, overhead signs, traffic detection loops, and pumping plants along US 101 within the project limits that have been determined to be deficient. The project also would install changeable message signs to display information collected by the traffic detection loops.

Determination

An Initial Study has been prepared by Caltrans, District 5. On the basis of this study, it is determined that the proposed project would have no effect on agriculture and forest resources, cultural resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources.

The proposed project would have a less than significant effect on aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and utilities and service systems.

With incorporation of the mitigation measures listed below, the project would not have a significant effect on biological resources for the following reasons:

- Mitigation is proposed at a 1-to-1 ratio (acreage) for temporary impacts, and a 3-to-1 ratio (acreage) for permanent impacts to riparian and wetland vegetation. As currently planned, mitigation for temporary and permanent impacts to riparian, wetland and stream habitat would be completed onsite, by restoring and improving existing conditions, including replacing non-native and invasive species with native riparian and wetland species. The mitigation measures included to minimize and mitigate impacts to jurisdictional wetlands, other waters, and riparian habitat, would benefit the California red-legged frog and ensure any suitable habitat onsite that is temporarily impacted would be restored.

- Though no removal of coast live oak trees is anticipated, any tree removal would require replanting at a 3-to-1 ratio to prevent a net loss of oak woodland.

_____

John Luchetta
D5 Deputy District Director, Environmental Analysis
California Department of Transportation

_____

Date

Table of Contents

Chapter 1 Proposed Project

1.1 Introduction

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

Caltrans proposes to rehabilitate existing drainage structures, and restore or replace 37 drainage culverts, two overhead sign structures, two count stations, and two pumping plants, as well as install three new changeable message signs, at a total of 46 locations along the US 101 corridor between post miles R28.23 and 100.3 in Monterey County. Project activities would occur at multiple work locations along US 101 (also known as Highway 101, a term that may be used elsewhere in this document in maps, tables or figures), See Figure 1-1, Project Location and Vicinity Map, for the work locations.

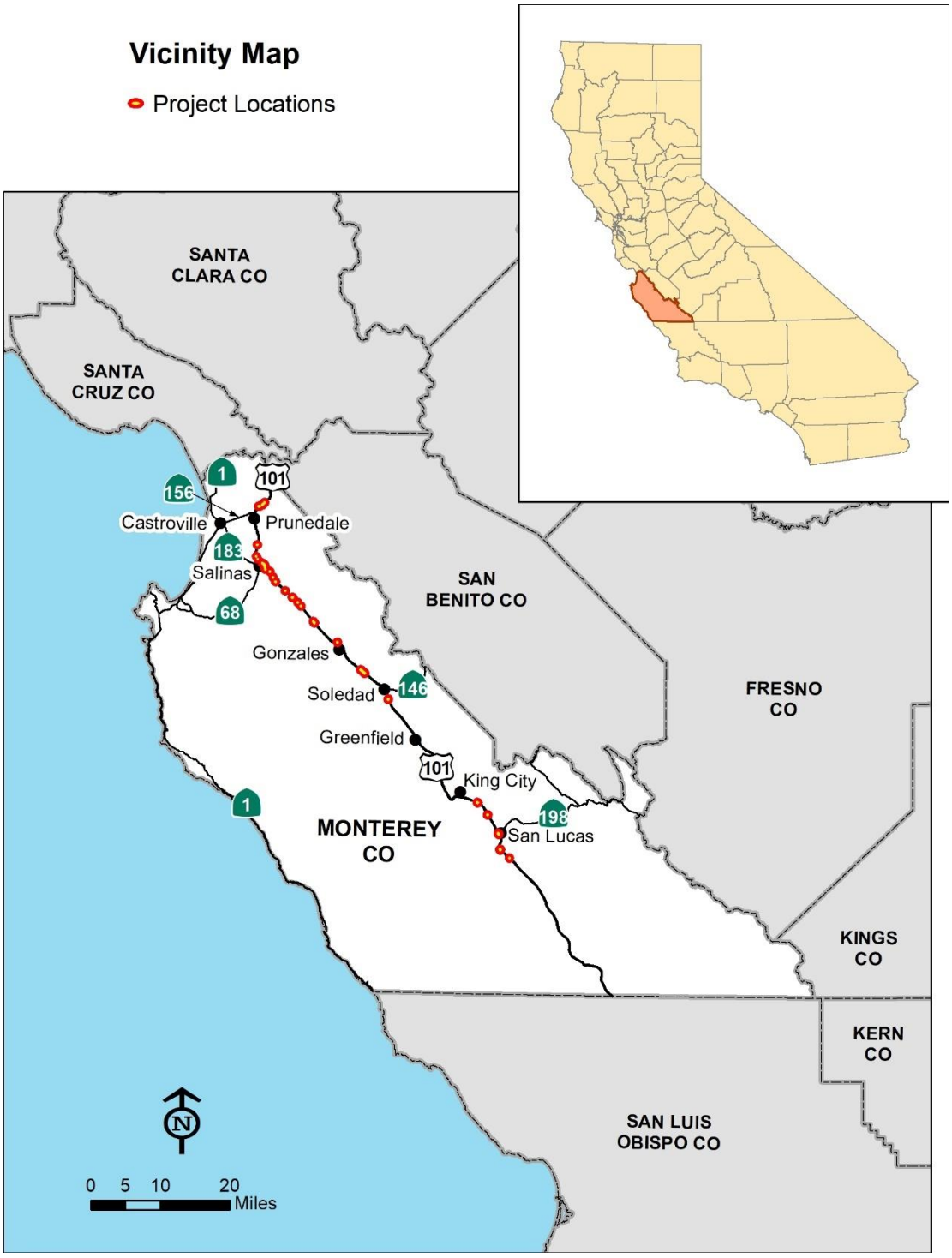
1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to improve assets in poor condition:

- Restore damaged culverts in poor condition to maintain the purpose of the drainage pipe and protect the embankments and roadway from potential failure.
- Replace overhead box beam sign structures and upgrade overhead sign panels to meet current standards for improved sign visibility and quality.
- Upgrade existing pumps and electrical control systems at pump plant locations to ensure capacity and adequate performance during storms.
- Replace existing count stations to meet current standards and extend service life. Also, install new changeable message signs to maintain an efficient Intelligent Transportation System and convey adequate traffic information to the traveling public.

Figure 1-1 Project Location and Vicinity Map



1.2.2 Need

The project is needed because numerous drainage and information collection and sharing assets have been identified as being in poor condition and at risk of failure between the project's start and end post miles. These assets with identified deficiencies are as follows:

- Culverts that have been identified as in poor condition show varying degrees of damage caused by corrosion, deformation, perforation, damaged inverts, shape loss, joint separation, undermined backfill, and overall deterioration. If the identified culverts are not replaced and/or rehabilitated, future roadway and embankment failure could occur.

- Two overhead sign structures of deficient and non-standard size, as well as non-standard and outdated sign panels, have been identified. Without upgrades, visibility of existing guide signs would continue to be inadequate for the traveling public.

- The Headquarters Office of Electrical, Mechanical, Water, and Wastewater Engineering Inspection Report identified that pumping plant equipment at two locations have deficiencies that need to be addressed to prevent future roadway flooding, damage, and disruption to traffic during storms. The pumping plant at post mile 66.39 needs new pumps and related equipment because the features are reaching the end of their service life and would be at risk of failure if not replaced. The pumping plant at post mile 82.48 needs capacity-increasing improvements; the plant is currently incapable of handling a 50-year storm and does not meet standards for preventing roadway flooding in a power outage.

- The District 5 Transportation Management Center provides real-time traffic information to motorists via changeable message signs. It also collects count data to archive into the Caltrans Performance Measurement System for historical analysis and public use. The existing changeable message sign and traffic data collection stations are outdated.

1.3 Project Description

This is an asset improvement project with various locations along US 101 in Monterey County. Caltrans proposes to rehabilitate existing drainage structures, as well as restore or replace 37 drainage culverts, two overhead sign structures, two count stations, and two pumping plants, and install three new changeable message signs, in a total of 46 locations along the US 101 corridor.

Culverts within the project limits that show varying degrees of damage would be repaired or replaced. Damage to the culverts has been caused by corrosion, deformation, perforation, damaged inverts, shape loss, joint separation, undermined backfill, and overall deterioration. In addition, sign

structures would be upgraded to a standard size and panel reflectivity improved, the pumps in the pumps stations would be improved, and the traffic management systems that collect data and provide real-time traffic information would be upgraded.

1.3.1 Culvert Rehabilitation

The project would replace or modify culverts, which are part of larger drainage systems, that have deteriorated and could experience failure if not replaced or rehabilitated. The culvert work would occur at 37 culverts across 26 drainage systems. These drainage systems collect, control, and convey water from several thousands of acres in total.

As appropriate at each culvert repair location, the project would remove and replace old pipe and flared-end section; increase the size of pipe; upgrade the type of pipe; install rock slope protection at inlets and outlets; modify or repair inlets and outlets; replace the headwall; line existing culverts; place new drainage inlets; cap existing drainage inlets; and place a sand trap.

Seven locations would be replaced using jack and bore method, and 30 locations would be replaced using cut and cover method. Cut and cover is a technique that involves removing a narrow section of the road surface and excavating to the necessary depth to lay the new pipe, then backfilling the trench to the road surface.

At the seven locations where jack and bore construction methods would be used (C-7, C-13, C-25, C-26, C-27, C-39, and C-40), the new pipes would be jacked under the highway after first drilling a hole from one side to the other. This construction method requires jacking and receiving pits at either end of the pipe during the construction process. At locations where there is adequate space in the median, both a jacking and receiving pit are used. When there is not adequate space in the median, the boring continues across the entire width of the highway to the receiving pit of the adjacent culvert (as is the case with C-25 and C-26). Trenches are not required with the jack and bore construction method.

Most of this work would be performed from the roadway, but culvert work at certain locations would require temporary construction easements if work would be performed outside of the Caltrans right-of-way and outside of an existing Caltrans easement. US 101 would remain open to traffic to the maximum extent safe and feasible during construction. Traffic would be controlled as needed for construction purposes through temporary closures, ramp closure, and/or one-way traffic control. See Table 1-1 Culvert Repairs for details on the culvert work. In addition, near culvert C-33 (post mile 96.58), construction of a retaining wall is proposed as part of the drainage improvements. The wall would be approximately 275 feet long and 8 feet high.

Table 1-1. Culvert Repairs

Location	Cover (feet)	Trench Depth (feet)	Culvert Length (feet)	Strategy
C-1 post mile 28.23	2.5-4.5	6-8	65	Replace existing pipe and flared-end section with new open-trenched reinforced concrete pipe; install steel flared-end section with rock slope protection at inlet; modify/repair outlet.
C-2 post mile 32.49	3-12	6-15	46	Replace existing pipe and flared-end section with new open-trenched reinforced concrete pipe. Install concrete flared-end section with rock slope protection at outlet.
C-3 post mile 32.49	5-12.5	8-15.5	66	Replace existing pipe with new open-trenched reinforced concrete pipe and modify/repair inlet and outlet.
C-4 post mile 32.49	2-4	5-7	99	Replace existing pipe with new open-trenched reinforced concrete pipe and modify/repair inlet and outlet.
C-5 post mile 32.49	1-4	4-7	88	Replace existing pipe with new open-trenched reinforced concrete pipe and modify/repair inlet and outlet.
C-6 post mile 37.92	3-4	None	281	Repair joints throughout the culvert.
C-7 post mile 60.49	3-20	Not Applicable	160	Replace existing pipe with new jacked reinforced concrete pipe; install new concrete flared-end section at outlet with rock slope protection; modify/repair inlet. Size upgrade from 30 inches to 36 inches for pipe swallowing method. Jack and bore construction method would be used. The jacking pit will be approximately 30 feet deep, and the receiving pit will be approximately 5 feet deep.
C-8 post mile 65.71	1-2.5	3.5-5	45	Replace existing pipe and headwall with new open-trenched reinforced concrete pipe; install new headwall that accommodates both pipes (pipe below) meeting at node 1 (outlet); modify/repair inlet.
C-9 post mile 65.71	1-5.5	3.5-8	29	Remove existing pipe and headwall. Replace with new open-trenched reinforced concrete pipe, install new headwall that accommodates both pipes (pipe above) meeting at node 1 (outlet), and modify/repair inlet.

Location	Cover (feet)	Trench Depth (feet)	Culvert Length (feet)	Strategy
C-10 post mile 65.71	2.5-5.5	5-8	29	Remove existing pipe. Replace with new open-trenched reinforced concrete pipe, and modify/repair outlet and inlet.
C-11 post mile 71.79	4.5	6.5	74	Replace existing pipe with new open-trenched reinforced concrete pipe; install concrete flared-end section with rock slope protection at outlet; modify/repair inlet.
C-12 post mile 76.21	3	None	81	Line existing 3 culverts at this location based on coordination with Caltrans. Known flooding occurs at this location and will need to be scoped and addressed in future projects.
C-13 post mile 76.48	2- 4	Not Applicable	79	Abandon existing pipe and headwall. Replace with new jack and bored reinforced concrete pipe; install headwall at outlet; modify/repair inlet. Jack and bore construction method would be used. The jacking pit and the receiving pit will both be approximately 10 feet deep.
C-14 post mile 76.48	1-3	4.5-6.5	74	Replace existing pipe and headwall with new open-trenched reinforced concrete pipe; install flared-end section at inlet; modify/repair outlet.
C-16 post mile 79.36	1-2.5	3.5-5	62	Replace existing pipe with new open-trenched reinforced concrete pipe and install a concrete flared-end section at both the outlet and inlet with rock slope protection.
C-17 post mile 80.05	2-3	4.5-5.5	75	Replace existing pipe with new open-trenched reinforced concrete pipe; install concrete flared-end section at both the outlet and inlet with rock slope protection; modify/repair inlet.
C-18 post mile 84.44	2-3	4.5-5.5	132	Replace existing pipe and headwalls with new open-trench reinforced concrete pipe and install flared-end section at both the outlet and inlet.
C-19 post mile 85.15	1-2.5	3.5-5	75	Replace existing pipe and headwall with new open-trenched reinforced concrete pipe; install flared-end section at outlet; modify/repair inlet.
C-20 post mile 85.15	1-2	3.5-4.5	61	Replace existing pipe with new open-trenched reinforced concrete pipe; modify/repair outlet and inlet.

Location	Cover (feet)	Trench Depth (feet)	Culvert Length (feet)	Strategy
C-21 post mile 86.13	1-11	4-14	60	Replace existing pipe with new open-trenched reinforced concrete pipe; install steel flared-end section at outlet with rock slope protection; modify/repair inlet.
C-24 post mile 86.85	2-14	5-17	53	Replace existing pipe with new open-trenched reinforced concrete pipe; replace headwall at inlet; modify/repair outlet.
C-25 post mile 86.85	1-10	Not Applicable	80	Abandon existing pipe and replace with new jacked reinforced concrete pipe; install concrete flared-end section at outlet with rock slope protection; modify/repair median inlet connection. Jack and bore construction method would be used. The jacking pit will be approximately 15 feet deep. A receiving pit in the median is not included for C-25 and C-26 due to space limitations.
C-26 post mile 86.85	1-10	Not Applicable	80	Abandon existing pipe and replace with new jacked reinforced concrete pipe; install concrete flared-end section at outlet with rock slope protection; modify/repair median inlet connection. Jack and bore construction method would be used. The jacking pit will be approximately 10 feet deep.
C-27 post mile 87.17	2.5-4.5	Not Applicable	50	Abandon existing pipe and place new jacked reinforced concrete pipe adjacent to existing; modify/repair median inlet connection. Jack and bore construction method would be used. The jacking pit and the receiving pit will both be approximately 10 feet deep. A receiving pit in the median is not included for C-25 and C-26 due to space limitations.
C-28 post mile 87.63	3-4	5.5-6.5	83	Replace existing pipe with new open-trenched reinforced concrete pipe; install concrete flared-end section at outlet with rock slope protection; modify/repair inlet.
C-29 post mile 87.86	1-2	3.5-4.5	73	Replace existing pipe with new open-trench reinforced concrete pipe; remove headwall; install concrete flared-end section inlet; modify/repair outlet.
C-30 post mile 88.83	4	6	37	Replace existing pipe with new open-trench reinforced concrete pipe; install steel flared-end section at outlet; modify/repair inlet. Upgraded from 12 inches to 18 inches.

Location	Cover (feet)	Trench Depth (feet)	Culvert Length (feet)	Strategy
C-31 post mile 89.25	7.5	9.5	85	Replace existing pipe with new open-trenched reinforced concrete pipe; modify/repair outlet and inlet. Upgraded from 12 inches to 18 inches.
C-32 post mile 91.00	3-4	5.5-6.5	143	Replace existing pipe with new open-trenched high-density polyethylene (HDPE) pipe; modify/repair outlet and inlet.
C-33 post mile 96.58	1-13	3.5-15.5	714	Design strategy revised to restore existing edge of shoulder, ditch, and embankment with minimal disturbance to wetlands. Installation of rock slope protection on embankments and grade to step down channel to be proposed in detailed design phase.
C-34 post mile 96.58	3.5-6.5	5.5-8.5	51	Replace 18-inch corrugated steel pipe with 24-inch alternative pipe culvert; open cut (segment 2-1). Assumes no temporary construction easements.
C-35 post mile 96.58	3.5	5.5	136	Replace 18-inch corrugated steel pipe with 24-inch alternative pipe culvert; open cut (segment 4-2).
C-36 post mile 97.08	2-3.5	4.5-6	114	Replace existing 24-inch corrugated steel pipe with 24-inch alternative pipe culvert (or) line existing 24-inch corrugated metal pipe.
C-37 post mile 97.1	2	4.5	270	Place new 24-inch reinforced concrete pipe and sand trap under northbound shoulder. Assumes no temporary construction easements.
C-38 post mile 97.13	1-2	3.5-4.5	38	Place new median drainage inlet and connect to Culvert C-36 in left northbound shoulder.
C-39 post mile 97.21	1-6	Not Applicable	109	Propose pipe jacking new culvert: abandon existing 24-inch corrugated metal pipe culvert; cap two existing drainage inlets; replace with 30-inch alternative pipe culvert; install two new drainage inlets in median; install flared-end section at outlet and new headwall at inlet. Jack and bore construction method would be used. Close northbound and southbound shoulders for up to 30 days. The jacking pit and the receiving pit will both be approximately 8 feet deep.

Location	Cover (feet)	Trench Depth (feet)	Culvert Length (feet)	Strategy
C-40 post mile 97.47	2.5-4	Not Applicable	102	Abandon existing 24-inch corrugated steel pipe; place 30-inch culvert alignment adjacent to existing with jack and bore; install flared-end segment at outlet and new inlet. Jack and bore construction method would be used. Close northbound and southbound shoulders for up to 30 days. The jacking pit will be approximately 8 feet deep, and the receiving pit will be approximately 12 feet deep.

1.3.2 Overhead Signs

Two overhead signs displaying exit and location information need to be upgraded. One sign faces northbound traffic at post mile 87.32; the second sign faces southbound traffic at post mile 87.45. The upgrades include replacing the existing box beam structure with Caltrans' standard one-post structure and upgrading sign panels to Type XI retroreflective sheeting. See Table 1-2 Overhead Signs for more details.

Table 1-2. Overhead Signs

Location ID	Post Mile Location	Existing Sign	Number of Posts	Orientation	Strategy
S-1	87.32	"Market St/To 183"	1	Facing northbound traffic	Replace existing box beam structure with Caltrans' standard one-post structure. Upgrade sign panels to Type XI retroreflective sheeting.
S-2	87.45	"John St Exit 1/2 Mile, Market St"	2	Facing southbound traffic	Replace existing box beam structure with Caltrans' standard two-post structure. Upgrade sign panels to Type XI retroreflective sheeting.

1.3.3 Pumping Plants

The project would rehabilitate various components of two pumping plants that control high stormwater flows. A pump at post mile 66.39 would be rehabilitated (not upsized) to ensure the continued control of stormwater flows. For a pump at post mile 82.48, either the pump would be upsized to increase pumping capacity or the wet well storage would be increased for

greater water storage capacity. This would allow the pumping plant to be better equipped to handle stormwater flows. See Table 1-3 Pumping Plants for more details.

Table 1-3. Pumping Plants

Location	Action
PP-1 post mile 66.39	Planned work includes the following: replace pumps and related components; install new access hatches or grates; replace water level control sensors; modify controls; and stencil “Bridge No. 44-0116W” on the exterior of the pump house.
PP-2 post mile 82.48	Either upsize the pump to increase pumping capacity, or increase the wet well storage for greater water storage capacity. Planned work includes the following: replace pumps and related components; replace pump control system; replace indicator light lamp.

1.3.4 Transportation Management Elements

Five transportation management system elements are included in this project. New loops and associated equipment are needed to rehabilitate the existing count stations at post miles 29.94 and 66.05. New changeable message signs, which would display traffic information, would be installed at post miles 29.92, 35.56, and 81.096. See Table 1-4 Transportation Management System for a summary of this information.

Table 1-4. Transportation Management System

Location	Item	Action
TMS-1 post mile 29.94	Changeable Message Sign	New
TMS-2 post mile 29.94	Count Station	Replace original
TMS-3 post mile 35.56	Changeable Message Sign	New
TMS-4 post mile 66.05	Count Station	Replace original
TMS-5 post mile 81.096	Changeable Message Sign	New

1.4 Project Alternatives

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

The alternatives that are under consideration were developed by an interdisciplinary team. Several criteria were taken into consideration when evaluating the various alternatives for the project, including the project’s

purpose and need, cost, design, construction strategies and environmental impacts.

1.4.1 Build Alternative

Under the Build Alternative, the project would result in temporary and permanent impacts to environmental resources. Temporary impacts would result from the various construction activities required to complete the project. Some permanent impacts would result from improvements to and the construction of new culvert and highway elements. The Build Alternative would address the purpose and need of the project by addressing the repair issues of the existing culverts, addressing pump plant deficiencies, and improving information-sharing for the traveling public.

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

Culvert Improvements

The Build Alternative would rehabilitate 37 culvert segments. Rehabilitation work would vary by location and be completed as necessary to repair identified deficiencies. Rock slope protection and flared-end section would be installed at several locations to improve drainage conditions. Culvert rehabilitation would be completed via jack and bore method at seven locations and via cut and cover method at the remaining 30 locations. One retaining wall would be constructed as part of the culvert improvement work. No additional culverts would be installed at new locations.

Traffic Monitoring

The Build Alternative would install three new overhead changeable message signs at new locations. The new changeable message signs would include a new electronic sign and foundation, new wiring, and new conduits and pull boxes. The Build Alternative would also replace two existing traffic count stations, which would include installing new loops on the northbound and southbound US 101 mainline; new conduit pull boxes and detector lead-in cables from the loops to the existing count station cabinet; and new conduit, wiring, and pull boxes from the existing count station to the upgraded service equipment enclosure.

Overhead Signs

Two overhead signs would be improved under the Build Alternative. Overhead sign work would include replacing the existing box beam structure with Caltrans’ standard post structure and upgrading sign panels to Type XI

retroreflective sheeting. A standard one-post structure would be used for sign S-1, and a standard two-post structure would be used for sign S-2.

Pump Plants

Improvements to internal components of two existing pump plants would be made under the Build Alternative to improve the management of stormwater.

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, no work would occur on the project. Therefore, the project would not result in any temporary or permanent impacts to environmental resources. However, this alternative would not address the purpose and need of the project. With the No-Build Alternative, the culvert and pump plant conditions would continue to worsen, and no new traffic information would be provided to the traveling public. Traffic monitoring would also not be improved. Routine maintenance activities would continue.

Culvert Improvements

For the No-Build Alternative, the project would not modify, replace, repair, or take any actions to address any existing deficiencies at the 37 culvert segments. This alternative would not address the potential risk for roadway and/or embankment failures on US 101 as a result of culvert damage and/or culvert deterioration.

Traffic Monitoring

For the No-Build Alternative, no new changeable message signs or traffic count stations would be installed on the project. This alternative would not contribute to the improvement of traffic monitoring or provide additional traffic information to the traveling public.

Overhead Signs

Under the No-Build Alternative, the two overhead signs would not be improved. The outdated box beam structure and sign panels would remain. Information would be portrayed less clearly to the traveling public.

Pump Plants

Under the No-Build Alternative, improvements to internal components of two existing pump plants would not be made. The pump plants may have inadequate capacity and/or performance during storms.

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

This project would include a list of Caltrans standard measures that are typically used on all Caltrans projects. Caltrans standard measures are considered

features of the project and are evaluated as part of the project. Caltrans standard measures are not implemented to address any specific effects, impacts or circumstances associated with the project, but are instead implemented as part of the project's design to address common issues encountered on projects. The measures listed below are those related to environmental resources and are applicable to the project. These measures can be found in Caltrans 2018 Standard Specifications document.

- 7-1 Legal Relations and Responsibility to the Public
- 10-4 Water Usage
- 10-5 Dust Control
- 10-6 Watering
- 12-1 Temporary Traffic Control
- 12-3 Temporary Traffic Control Devices
- 12-4 Traffic Control Systems
- 13-1 Water Pollution Control
- 13-2 Water Pollution Control Program
- 13-4 Job Site Management
- 13-6 Temporary Sediment Control
- 13-7 Temporary Tracking Control
- 13-10 Temporary Linear Sediment Barriers
- 14-1 Environmental Stewardship
- 14-2 Cultural Resources
- 14-6 Biological Resources
- 14-7 Paleontological Resources
- 14-8 Noise and Vibration
- 14-9 Air Quality
- 14-10 Solid Waste Disposal and Recycling
- 14-11 Hazardous Waste and Contamination
- 14-12 Other Agency Regulatory Requirements
- 17-2 Clearing and Grubbing
- 18-1 Dust Palliatives
- 20-1 Landscape
- 20-3 Planting

- 20-4 Plant Establishment Work
- 21-2 Erosion Control Work

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

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, will be 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. Necessary Permits and Approvals

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement	To be obtained before construction
U.S. Army Corps of Engineers	Section 404 Nationwide Permit	To be obtained before construction
Central Coast Regional Water Quality Control Board	Section 401 Water Quality Certification	To be obtained before construction
U.S. Fish and Wildlife Service	Section 7 programmatic consultation and Biological Opinion for California red-legged frog	To be completed before construction
U.S. Fish and Wildlife Service	Section 7 informal consultation and letter of concurrence for San Joaquin kit fox	To be completed before construction

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

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

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below.

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

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated January 11, 2022, 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

The project passes through several landscape types along its length. The southern segment of the project goes through the Salinas Valley and the cities of King City and Salinas. The Salinas Valley area is defined by the broad valley floor, characterized by agricultural operation, with the Coast Range mountains to the west and the Gabilan Mountains to the east. King City also contributes to the visual experience along US 101 with its relatively small, compact community. The city of Salinas is slightly larger, with a somewhat more urban appearance where commercial, industrial, and residential uses are visible.

Despite the more developed appearance, views from US 101 retain a somewhat rural look, due in part to the densely vegetated hillsides and the patterns of the residential and farm development visible throughout the area. Vegetation in the area is mostly oak woodlands, chaparral, and open grasslands with stands of eucalyptus and cypress. The topography ranges from gently sloping to steep hills, cut by narrow canyons with riparian areas.

No local or state designated scenic roadways are identified within the project area, but 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 and the densely vegetated hillsides of the Prunedale area.

Environmental Consequences

Response to a)—Less Than Significant Impact

Scenic vistas in the vicinity of US 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. By painting the changeable message signs and associated elements (see avoidance and minimization measures below), it would help these elements blend with the surroundings and be less noticeable in the landscape. The improvements would not significantly impact views of scenic vistas in the area. The distant hills and fields would remain visible and would continue to contribute to the scenic vista.

Response to c)—Less Than Significant Impact

Implementation of the project would result in visual changes as seen from public viewpoints, such as US 101 and some intersecting local streets. An increased visual scale of the highway facility would result. Project elements such as structures related to culvert improvements, Traffic Management System elements, a retaining wall, and additional paving would be readily visible from the roadway. These elements individually are common highway features that would not be unexpected elements along the roadway. However, these elements when viewed together would contribute to a more utilitarian appearance and increased visual clutter. Construction would also require removal of vegetation in some areas.

Therefore, these visual changes would cause a minor reduction in rural character and visual quality to the immediate project area. 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 retaining wall would be somewhat reduced with aesthetic treatment. As a result, the proposed drainage structures, retaining wall, additional paved surfaces, and Traffic Management System elements would be subordinate to the overall experience of traveling along the highway.

It is expected that following project construction and revegetation, the project would be generally unnoticed by the casual observer on US 101 and other public viewpoints in the area. If noticed, the project would not appear out-of-place with the setting.

Minimization measures addressing this visual effect, as specified below, would minimize noticeability of the individual project elements and reduce the potential effect on the existing visual character.

Avoidance and Minimization Measures

The following measures will be implemented to minimize potential effects on visual character:

- VIS-1: Preserve as much existing vegetation as possible. Prescriptive clearing, grubbing, and grading techniques that save the most existing vegetation possible will be used.

- VIS-2: Revegetate all disturbed areas with native plant species appropriate to each specific work location.

- VIS-3: Replacement planting will include aesthetic considerations as well as the inherent biological goals. Revegetation will include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architect.

- VIS-4: The aesthetic treatment of Traffic Management System elements, such as painting, will be determined and approved by District 5 Landscape Architecture.

- VIS-5: The retaining wall at post mile 96.5 shall be aesthetically treated. The aesthetic treatment of the retaining wall will be determined and approved by District 5 Landscape Architecture.

- VIS-6: The changeable message signs, including but not limited to frames, poles, truss systems, catwalks, ladders, and associated hardware will be painted or otherwise colored to visually recede into the setting. Coloring should also include the front and side frames and back panel of the electronic sign panel itself. The color will be determined and approved in conjunction with District 5 Landscape Architecture.

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

2.1.2 Agriculture and Forest Resources

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

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

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest Resources
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	**No Impact**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	**No Impact**
c) Conflict with existing zoning, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	**No Impact**
d) Result in the loss of forest land or conversion of forest land to non-forest use?	**No Impact**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	**No Impact**

2.1.3 Air Quality

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

Considering the information in the Air Technical Memo dated July 21, 2020, the following significance determinations have been made for air quality:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Air Quality
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 within the North Central Coast Air Basin, where air quality is regulated by the Monterey Bay Air Resources District. The basin is considered in attainment for all federal ambient air quality standards and non-attainment transitional for state ambient air quality standards for ozone and non-attainment for airborne particulate matter less than 10 microns in diameter (PM_{10}).

Environmental Consequences

Response to b)—Less Than Significant Impact

The project would not result in a long-term increase in air emissions because it is not a capacity-increasing project. During construction, there would be a short-term increase in air emissions and fugitive dust. However, due to the small scope of work near sensitive receptors, this project presents minimal potential to subject surrounding sensitive receptors to inhalable construction emissions that would be considered significant. Due to use of standard construction dust and emission minimization practices and procedures (Standard Specification 14-9.02 Air Pollution Control), it is anticipated that project emissions of particulate matter (dust) and equipment emissions would be well within the Monterey Bay Air Resources District daily thresholds. In addition, water pollution control measures that correlate with standard dust emission minimization measures would further reduce air quality emissions. Therefore, the project would not result in a cumulatively considerable net increase of ozone or PM_{10}. A full list of standard measures and best management practices that are included in all projects is provided in Section 1.5.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated January 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 Atmospheric Administration Fisheries?	**Less Than Significant Impact With Mitigation Incorporated**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**Less Than Significant Impact With Mitigation Incorporated**
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**Less Than Significant Impact With Mitigation Incorporated**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	**Less Than Significant Impact**
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 Natural Environment Study established a Biological Study Area for the project, defined as the area that may be directly, indirectly, temporarily, or permanently impacted by construction and construction-related activities. The project's Biological Study Area is 49 acres, most of which is within the highway right-of-way, except in a few areas where drainage easements are proposed or where a 20-foot-wide buffer around proposed culvert work areas extended outside of the right-of-way.

The project sits in the Salinas River valley, an interior valley of the Coast Ranges of California. The entirety of the Biological Study Area has some level of human disturbance, mostly due to agricultural practices and highway development and maintenance, but also associated with urban development and private property operations. Land uses in the region are mostly agricultural, except in areas where commercial and residential properties are predominant within the cities of Chualar, Gonzales, Greenfield, King City, Salinas, and Soledad. Almost all the properties next to the highway right-of-way are privately owned, except for city and county roads and the portion of Soledad State Prison near the highway. Agricultural uses are mostly row crops.

Special-Status Species

Due to the prevalence of agricultural properties in the region, the biological communities in the Biological Study Area are limited. The entire Biological Study Area has been modified either historically or recently as part of ongoing land management activities. The few natural communities in the Biological Study Area are highly fragmented by the presence of the highway and commercial, agricultural, and residential development. Invasive plant species are abundant throughout the project area. Hydrologic modifications, development, and pollutants have more than likely substantially reduced habitat values in the region compared to less developed areas. Despite these conditions, Caltrans documented 156 plant species and 31 wildlife species during environmental review for this project.

Some project work locations contain habitat that could support state and/or federally protected species. See Table 2-1.

Table 2-1. Special-Status Species With Potential to Occur in Project Work Locations

Species	Status
Special-Status Plant Species: Marsh sandwort	Federally endangered, state endangered, California rare plan rank 1B.1
Special-Status Plant Species: Santa Lucia purple amole, purple amole	Federally threatened, California rare plan rank 1B.1
Special-Status Plant Species: Monterey spineflower	Federally threatened, California rare plant rank 1B.2

Species	Status
Special-Status Plant Species: Jolon clarkia	California rare plant rank 1B.2
Special-Status Plant Species: Seaside bird's-beak	State endangered, California rare plant rank 1B.1
Special-Status Plant Species: Recurved larkspur	California rare plant rank 1B.2
Special-Status Plant Species: Eastwood's goldenbush	California rare plant rank 1B.1
Special-Status Plant Species: Fragrant fritillary	California rare plan rank 1B.2
Special-Status Plant Species.: Santa Cruz tarplant	Federally threatened, state endangered, California rare plant rank 1B.1
Special-Status Plant Species: Contra Costa goldfields	Federally Endangered, California rare plant rank 1B.1
Special-Status Plant Species: Monterey pine	California rare plant rank 1B.1
Special-Status Plant Species: Yadon's piperia	California rare plant rank 1B.2
Special-Status Plant Species: Michael's rein orchid	California rare plant rank 4.2
Special-Status Plant Species: Yadon's rein orchid	Federally Endangered, California rare plant rank 1B.1
Special-Status Plant Species: Choris' popcornflower	California rare plant rank 1B.2
Special-Status Plant Species: Pine rose	California rare plant rank 1B.2
Special-Status Animal Species: California red-legged frog	Federally threatened, critical habitat designated, state species of special concern
Special-Status Bird Species: Cooper's hawk	Migratory Bird Treaty Act, Department of Fish and Game Watch List species
Special-Status Bird Species: Great blue heron	California Department of Fish and Game Special Animal, Migratory Bird Treaty Act
Special-Status Bird Species: Other nesting birds	California Fish and Game Code Section 3503, Migratory Bird Treaty Act
Special-Status Invertebrate Species: Crotch bumble bee	State Candidate Endangered
Special-Status Invertebrate Species: Western bumble bee	State Candidate Endangered
Special-Status Invertebrate Species: Monarch butterfly	Federal Candidate
Special-Status Mammal Species: Pallid bat	California species of special concern
Special-Status Mammal Species: Western mastiff bat	California species of special concern
Special-Status Mammal Species: Monterey dusky-footed woodrat	California species of special concern
Special-Status Mammal Species: American badger	California species of special concern
Special-Status Mammal Species: San Joaquin kit fox	Federally endangered, state threatened
Special-Status Reptile Species: Northern legless lizard	California species of special concern
Special-Status Reptile Species: Western pond turtle	California species of special concern
Special-Status Reptile Species: Coast horned lizard	California species of special concern

The plants listed above are considered to be of special concern based on federal, state, or local laws regulating impacts to the species; limited distributions; and/or the presence of habitat required by the special-status

plants occurring onsite. The Biological Study Area, defined as directly, indirectly, temporarily, or permanently impacted by construction and construction-related activities, contains potentially suitable habitat for 16 special-status plants. Habitat conditions are marginal for most of the species due to past and present land alteration and management actions. No special-status plants were seen in the Biological Study Area during appropriately timed surveys in 2020 and 2021. The project is not expected to result in impacts to special-status plant species.

The animals listed above are considered to be of special concern based on federal, state, or local laws regulating their development; limited distributions; and/or the habitat requirements of special-status animals occurring onsite. Several special-status animals have the potential to occur in the Biological Study Area based on the presence of potentially suitable habitat conditions. Those species are described below.

California Red-legged Frog

No California red-legged frogs at any life stage were found in the Biological Study Area. There are several records of the California red-legged frog in the project vicinity near post mile 95, at a known breeding pond about 1.3 miles from culvert work at location C-33. Surrounding urban, agricultural, and rural development may restrict access for frogs if they occur in the less developed areas to the east. Adult frogs may disperse through the Biological Study Area, though most likely only in drainages that have sufficient vegetation, cover and litter, and access across the busy highway.

Other Nesting Birds and Native Migratory Birds

The Biological Study Area has potentially suitable low-quality habitat for several bird species. No state or federally listed birds are known or expected to occur in or near the Biological Study Area, and critical habitat for listed bird species does not occur within or near the Biological Study Area.

Many bird species will avoid nesting in regularly disturbed areas when they have more protected habitat nearby. However, some raptors may nest in tall trees in urban areas, especially where there are nearby areas for hunting. Other species of native birds will also nest in urban areas, particularly the house finch, swallows (various species), and American crow. The oak woodlands, scrub and farm habitats in the northern portion of the Biological Study Area could provide nesting habitat for a variety of native birds, including some of the species listed above as regional species of concern.

Crotch and Western Bumble Bees

General reconnaissance-level wildlife surveys were conducted throughout the 2020 and 2021 blooming season. Although bumble bees were not seen during surveys, suitable foraging habitat for wild bees is present. Potential nesting and overwintering habitat may be present for ground-nesting bumble

bees in the Biological Study Area, in areas not frequently disturbed by maintenance activities or vehicular traffic and not densely vegetated. However, the chances are very low that Crotch or western bumble bees would be present due to the poor habitat conditions.

Pallid Bat, Western Mastiff Bat, and Other Bat Species

Focused surveys for bats were not performed, and roosting habitat was evaluated only near possible impact areas. No evidence of roosting or maternal colonies of bats was found in these areas. Some of the older trees in the Biological Study Area may be suitable as roosting habitat for the pallid bat or other bat species, though not likely in the highly disturbed areas.

San Joaquin Kit Fox

Populations of the San Joaquin kit fox have historically occupied grasslands and blue oak woodlands in the Salinas Valley area. However, kit fox populations have faced a sharp decline, and the most recent data indicate the resident group is no longer there. No evidence of kit foxes was found within or adjacent to the project limits. No potential den sites were found during surveys within the Biological Study Area.

Northern Legless Lizard, Western Pond Turtle, and Coast Horned Lizard

Focused surveys for special-status reptiles were not performed but marginal suitable habitat was found in various locations in and near the Biological Study Area. Suitable habitat for the northern legless lizard occurs in oak woodland and riparian habitats in the Biological Study Area that have appropriate soil moisture and leaf litter. Suitable habitat for the coast horned lizard may occur in the dry gravelly soils with sparse vegetation that is found in a few locations at the edges of the right-of-way in the southern portion of the Biological Study Area. However, presence of the coast horned lizard within the Biological Study Area is unlikely due to access constraints, including adjacent agricultural land uses. The western pond turtle has a low probability to be found in the human-made or natural ponds in the vicinity the Biological Study Area. Potential upland refugia and nesting habitat may occur in uplands next to Alisal Creek and Chualar Creek. However, suitable nesting habitat is mostly absent from the Biological Study Area due to development, frequent disturbances, limited access between aquatic areas and the Biological Study Area, and higher quality nesting habitat outside of the Biological Study Area.

Jurisdictional Wetlands, Other Waters, and Riparian Habitat

Wetlands function to improve water quality, detain storm water runoff, recharge groundwater, and provide wildlife habitat. Riparian habitat along streams provides wildlife habitat, insects for food for aquatic species, and shade, which helps regulate stream temperature.

Potential jurisdictional areas were delineated in the Biological Study Area. Three-parameter wetlands were delineated in areas that met the criteria of hydrophytic vegetation, hydric soils, and wetland hydrology. Other Waters or streams were delineated at 13 locations consisting of stream features ("Other Waters") in the Biological Study Area. Most of these locations were highly modified ephemeral drainages (temporary water channels formed by water during or immediately after rains). A few streams (including Chualar Creek and Alisal Creek) support more stable riparian conditions that may provide habitat for aquatic species. Riparian habitat is associated with streams within the Biological Study Area.

Oak Woodlands

The only oak woodland habitat within and surrounding the Biological Study Area is coast live oak woodland. A total of 0.357 acre of coast live oak woodlands is found in the Biological Study Area (see **Error! Not a valid bookmark self-reference.** later in this section). Most are found on north-facing slopes or associated with drainage systems.

Invasive Species

Seventy-eight terrestrial plant species were found in the Biological Study Area. This equates to approximately half of all vascular plants seen in the Biological Study Area. Some are dominants and characteristic of their plant community, including Bromus species, poison hemlock, and black mustard. Many of the invasive species are also on the California noxious weed list (such as Italian thistle, yellow star thistle, pampas grass, and kikuyu grass). A noxious weed is a weed that has been designated by an agricultural or other governing authority as a plant that is injurious to agricultural or horticultural crops, natural habitats or ecosystems, or humans or livestock. Italian thistle is relatively abundant in the Biological Study Area. Although some of the invasive species are aquatic plants, no commonly associated invasive aquatic animal species were seen in the Biological Study Area.

Habitat Connectivity

Wildlife species move both daily and seasonally to survive. However, the habitats animals rely upon continue to be fragmented by housing, roads, fences, energy facilities, and other human-made barriers. Connectivity includes the physical arrangement of disturbance and/or habitat areas and functional connectivity or the movement of individual animals across the landscape. Linkages, or movement corridors, between habitat areas provide avenues for genetic exchange, access to forage and denning areas, and access to alternative territories.

US 101 in the Biological Study Area has habitat connectivity areas at post mile 32.49 (culvert numbers C-2, C-3, C-4, and C-5) and post mile 30.0 (transportation management system locations 1 and 2).

Other natural landscape areas and blocks are found in the region, but they are separated by over 300 feet, supporting the documentation of lack of habitat connectivity identified by the California Essential Habitat Connectivity Project.

The project extent of US 101 was reviewed for wildlife-vehicle collision hot spots, which are based on a combination of California Highway Patrol crash records involving collision with animals and the California Roadkill Observation System of large roadkill incidents. The highest ranking of wildlife-vehicle collision hot spots in the Biological Study Area is between culvert locations C-33 and C-40 (approximate post miles 96.5 and 97.5) at the northern end of the project in the Prunedale area, with an average of five incident per mile per year. The remainder of the Biological Study Area had few to no wildlife-vehicle collision hot spots. Busy roads like this section of US 101 can be partial barriers to animal movement.

Although the region is not characterized as an Essential Habitat Connectivity Area at the landscape-scale, the region has large tracts of open space that may be used by a variety of wildlife species. Stream corridors with riparian or shrubby vegetation provide cover and forage for wildlife and can facilitate movement of wildlife and fish species through rural and urban areas like Prunedale and also across inhospitable agricultural areas.

Environmental Consequences

The following section analyzes environmental consequences as they pertain to each CEQA significant threshold.

Response to a)—Less than Significant Impact with Mitigation Incorporated

California Red-legged Frog

Potential breeding habitat for the California red-legged frog does not occur within the Biological Study Area. The project would not appreciably reduce the amount or quality of upland habitat for the California red-legged frog. Because the Biological Study Area is within the outer limits of the dispersal range of known breeding records, there is a low chance that dispersing frogs may be found in the project's area of potential impacts. Culvert work at locations C-33 through C-40 is within dispersal range of the known breeding pond, and these culvert locations support riparian and wetland habitat. However, the likelihood is low that frogs are present at these locations due to heavy traffic, the distance to a known breeding pond (1.3 miles), poor habitat conditions in the Biological Study Area, and more suitable habitat conditions outside of the Biological Study Area. The Federal Endangered Species Act Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, the California red-legged frog. Avoidance, minimization, and mitigation measures for potential impacts to California red-legged frog are provided below.

There is no California red-legged frog critical habitat present within the Biological Study Area of the project. The project would have no effect on designated California red-legged frog critical habitat.

Other Nesting Birds and Native Migratory Birds

Although nesting birds were not found in the Biological Study Area during field surveys for this project, there is a chance that many special-status and other protected birds may nest in suitable habitat areas in the Biological Study Area. Vegetation removal could directly impact active bird nests and any eggs or young residing in nests. Indirect impacts could also result from noise and disturbance associated with construction. While temporary loss of vegetation supporting potential nesting habitat could occur, this would be offset by revegetation efforts for the project. Implementation of avoidance and minimization measures would reduce the potential for negative impacts to nesting bird species.

Crotch and Western Bumble Bees

The project would temporarily impact limited areas of ruderal/annual grassland, oak woodland, and ornamental habitats within the Biological Study Area that could potentially support native ground-nesting bees such as Crotch and western bumble bees. Temporary impacts are mostly due to construction access. The project is not expected to result in permanent loss of nesting habitat for bees because the permanent impacts are in areas that are unsuitable for nesting due to repeated disturbance for maintenance activities, lack of nectar or nesting habitat, and proximity to heavy vehicular traffic.

Pallid Bat, Western Mastiff Bat, and Other Bat Species

The project is not expected to result in permanent impacts to potential roosting or nesting habitat for the pallid bat, western mastiff bat, or other bat species due to lack of signs indicating presence, and ready access to higher quality habitat in less disturbed areas away from the highway. If pallid, western mastiff, or other bats are using any of the project culverts, it would be for occasional night roosting. Although most of the culvert work would take place during the daytime, in the event that night work is necessary, bats may be temporarily displaced. The chances are low that the pallid bat or other bat species would be temporarily impacted due to poor quality habitat near the busy highway and urban and agricultural areas. Possible tree removal for this project is very limited and not expected to impact tree-dwelling bats or other bat species that may occasionally roost in trees during the night due to proximity to the busy highway and the abundance of higher quality roosting habitat away from the Biological Study Area.

Avoidance, minimization, and mitigation measures are not required because no potentially significant impacts to bats would result due to the project.

San Joaquin Kit Fox

Given the historic occurrences of kit foxes in the area, avoidance and minimization measures will be incorporated into the project to minimize potential impacts to the San Joaquin kit fox. This project will include all standard minimization and avoidance measures for the San Joaquin kit fox per the standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance.

With these avoidance and minimization measures in place, and given the number of years of negative surveys for kit foxes in the Salinas Valley, the Federal Endangered Species Act Section 7 effects determination is that the proposed project may affect, and is not likely to adversely affect, the San Joaquin kit fox. Avoidance and minimization measures for the San Joaquin kit fox are provided below.

Northern Legless Lizard, Western Pond Turtle, and Coast Horned Lizard

The project has the potential to impact the northern legless lizard, coast horned lizard, and western pond turtle if these species are found burrowing or nesting in the area of potential impacts. However, the chances are very low that any of these special-status reptile species would occur within the area of potential impacts due to poor habitat conditions, higher quality burrowing and nesting habitat outside of the Biological Study Area, and limited access between the higher quality habitat and the project work areas. The project is not expected to appreciably reduce the quality or amount of suitable habitat for any of these special-status reptiles. Avoidance and minimization measures are provided below.

Introduction and Spread of Invasive Species

Ground disturbance and other aspects of project construction could potentially spread or introduce invasive species within the Biological Study Area. Invasive plants are present at some level in all of the Biological Study Area locations and are often dominant species in some of the plant communities. The project has the potential to cause an increase in invasive terrestrial species in communities and cause spread into 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. Avoidance and minimization measures to reduce the introduction and spread of invasive species are provided below.

Response to b)—Less than Significant Impact with Mitigation Incorporated

Impacts to special-status natural communities/habitats and potential jurisdictional waters within the Biological Study Area have been quantified for the project based on anticipated vegetation clearing, ground disturbance, the build-out footprint, and potential areas of temporary disturbance, based on early design information. The impacts include permanent habitat loss due to

permanent project features. Impacts also include temporary construction disturbances where the habitat is expected to be restored. Caltrans biologists evaluated available design information and coordinated with project design and construction personnel to classify permanent and temporary impact areas.

The impact areas are a subset of the Biological Study Area and represent the area of potential impact, which was overlain with mapped features of sensitive natural communities and potential jurisdictional waters to quantify impacts, as summarized on Table 2-2.

Table 2-2. Special-Status Natural Communities in the Biological Study Area and Potential Project Impacts

Regulatory Authority/ Habitat Type	Total Area in Biological Study Area (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
U.S. Army Corps of Engineers (Total)	**0.868**	**0.036**	**0.199**
Stream Habitat (Other Waters)—includes intermittent stream and ephemeral drainages	0.257	0.007	0.133
Clean Water Act Wetland	0.611	0.029	0.066
Regional Water Quality Control Board (Total)	**1.292**	**0.054**	**0.250**
Stream Habitat—includes intermittent stream and ephemeral drainages	0.227	0.007	0.066
Riparian Habitat—includes vegetated and unvegetated riparian zone	0.425	0.019	0.051
Clean Water Act Wetland	0.611	0.029	0.133
California Department of Fish and Wildlife (Total)	**1.266**	**0.046**	**0.247**
Stream Habitat—includes intermittent stream and ephemeral drainages	0.257	0.007	0.066
Riparian Habitat—includes vegetated and unvegetated riparian zone	0.425	0.019	0.051
Wetlands—same as Clean Water Act wetland but excludes the wetland at post mile 86.85	0.584	0.021	0.130
Caltrans/CEQA: Coast Live Oak Woodland	0.357	0.005	0.046

Jurisdictional Wetlands, Other Waters, and Riparian Habitat

Estimates of permanent and temporary impacts to potentially jurisdictional wetlands, other waters, and riparian habitat are shown in Table 2-2 above. The impacts are dispersed among 13 different drainage systems.

Permanent impacts to jurisdictional areas relate to the addition of flared-end treatments and rock slope protection, totaling between 0.038 and 0.054 acre, depending on the regulatory authority (see Table 2-2). The impacts are at the disturbed edges of intermittent stream and riparian habitats representing low-quality habitat.

Between 0.199 and 0.250 acre of temporary impacts to jurisdictional areas are anticipated, depending on the regulatory authority (see Table 2-2). The temporary impacts are due mostly to construction access, clearing and grubbing vegetation, and construction of the culverts and rock slope protection; areas would be restored after construction.

Avoidance, minimization, and mitigation measures for jurisdictional wetlands, other waters, and riparian habitat are provided below.

Oak Woodlands

The project would include work within approximately 0.05 acre of oak woodland habitat, primarily consisting of clearing understory vegetation for temporary construction access. Work would occur at the edges of the roadside where the habitat is understory (primarily annual grasses, annual forbs, and poison oak) and where oak trees would not need to be removed. Therefore, the project would not result in losses of oak woodland habitat. Specific tree removal or trimming details would be developed during the design phase of the project.

No removal of coast live oak trees is currently anticipated. However, if tree removal does occur, mitigation would be required. Avoidance, minimization, and mitigation measures are detailed below.

Response to c)—Less than Significant Impact with Mitigation Incorporated

See response to b) above. Impacts are summarized in Table 2-2 above, and avoidance, minimization, and mitigation measures to reduce impacts to a less than significant level are provided below.

Response to d)—Less than Significant Impact

US 101 in the Biological Study Area has habitat connectivity areas at post mile 32.49 (culvert locations C-2, C-3, C-4, and C-5) and post mile 30.0 (transportation management system locations 1 and 2). Work at post mile 32.49 includes removing existing pipes and flared-end section and replacing with new open-trenched reinforced concrete pipe, repairing inlets and outlets, and installing concrete flared-end section with rock slope protection at outlets. This work would not permanently separate natural landscape areas or blocks.

Fish passage must also be considered. There is some evidence suggesting potential historic use of steelhead at Chualar Creek, and work at culvert location C-12 would occur within Chualar Creek. Coordination with the California Department of Fish and Wildlife will be completed to determine if

fish passage improvements may be required per the Section 1602 Streambed Alteration Agreement, which must be obtained prior to project construction. If determined to be necessary, these improvements to fish passage would be included as a condition of the 1602 Agreement. Therefore, the project would have a less than significant impact to fish passage.

Avoidance, Minimization, and Mitigation Measures

California Red-Legged Frog

Avoidance and Minimization Efforts

Caltrans anticipates the project will qualify for Federal Endangered Species Act incidental take coverage under the Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (U.S. Fish and Wildlife Service 2011). All of the measures in the California red-legged frog programmatic biological opinion for formal consultation will be adhered to, and are listed here:

- CRLF-1: Only U.S. Fish and Wildlife Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

- CRLF-2: Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

- CRLF-3: A U.S. Fish and Wildlife Service-approved biologist will survey the project area no more than 48 hours before the onset of work activities for culvert locations C-33 through C-40 where California red-legged frog habitat is present. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site will be in the same drainage to the extent practicable. Caltrans will coordinate with the U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

- CRLF-4: Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be

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

- CRLF-5: A U.S. Fish and Wildlife Service-approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans will designate a person to monitor onsite compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure that this monitor receives the training outlined in Measure CRLF-4 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the U.S. Fish and Wildlife Service during review of the proposed action, they will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the U.S. Fish and Wildlife Service will be notified as soon as possible.

- CRLF-6: During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

- CRLF-7: All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- CRLF-8: Habitat contours will be returned to a natural configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or modification of original contours would benefit the California red-legged frog.

- CRLF-9: The number of access routes, size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and

construction areas outside of wetlands and riparian areas to the maximum extent practicable.

- CRLF-10: Caltrans will attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal for culvert locations C-33 through C-40, where California red-legged frog habitat is present. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

- CRLF-11: To control sedimentation during and after project completion, Caltrans shall implement best management practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act received for the project. If best management practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

- CRLF-12: If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.094 inch (2.38 millimeters) to prevent California red-legged frogs, tadpoles, and other aquatic organisms from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.

- CRLF-13: Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that may attract California red-legged frogs.

- CRLF-14: A U.S. Fish and Wildlife Service-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs, signal and red swamp crayfish, centrarchid fishes, and catfish from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

- CRLF-15: If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the

California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

- CRLF-16: To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force will be followed at all times.

- CRLF-17: Project sites will be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

- CRLF-18: Caltrans will not use herbicides as the primary method used to control invasive, exotic plants. However, if Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it will implement the following additional protective measures for the California red-legged frog:

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

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

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

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

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

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

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

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

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

j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Caltrans will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- CRLF-19: Upon completion of the project, Caltrans will ensure that a Project Completion Report is completed and provided to U.S. Fish and Wildlife Service, following the template provided with the Programmatic Biological Opinion. Caltrans will include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation.

- CRLF-20: Upon completion of any project for which this programmatic consultation is used, Caltrans will ensure that a Project Completion Report is completed and provided to the Ventura Fish and Wildlife Office. A copy of the form is enclosed. Caltrans should include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation. In addition, Caltrans will reinitiate formal consultation in the event any of the thresholds are reached.

Compensatory Mitigation

Measures described below, under Jurisdictional Wetlands, Other Waters, and Riparian Habitat, will benefit California red-legged frog and ensure any suitable habitat onsite that is temporarily impacted will be restored.

San Joaquin Kit Fox

Avoidance and Minimization Efforts

- SJKF-1: If San Joaquin kit foxes are detected in the project limits, then the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife must be consulted pursuant to Section 7 of the Federal Endangered Species Act and the California Endangered Species Act, respectively. All project activities shall cease until consultation is complete and the necessary take authorization is obtained.

Caltrans will implement the following standard minimization and avoidance measures per the U.S. Fish and Wildlife Service Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance:

- SJKF-2: Project employees will be directed to exercise caution when commuting within listed species habitats. A 20 mile-per-hour speed limit will be observed in all project areas, except on county roads and state and federal highways. Cross-country travel by vehicles will be prohibited outside of the project area unless authorized by the U.S. Fish and Wildlife Service. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

- SJKF-3: Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a Caltrans- or U.S. Fish and Wildlife Service-approved biologist. The program will consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology and legislative protection, and measures to avoid impacts to the species during project implementation.

- SJKF-4: A litter control program will be initiated at each project site. No pets or firearms (except for law enforcement officers and security personnel) will be allowed onsite.

- SJKF-5: Excavations deeper than 2 feet will be covered with plywood or similar material at the end of each workday, or escape ramps put in place to prevent any entrapment. Each excavation will be inspected thoroughly before being filled.

- SJKF-6: All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater stored on the construction site overnight will be thoroughly inspected for San Joaquin kit foxes prior to being buried, capped, or otherwise used or moved. If a San Joaquin kit fox is discovered inside a pipe, the pipe should 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.

- SJKF-7: The resident engineer or their designee will be responsible for implementing these conservation measures, and the Caltrans biologist will represent the point of contact for the project.

- SJKF-8: Restoration and vegetation work will use California endemic plant materials from onsite or local sources. Loss of soil from runoff or erosion will be prevented using fiber rolls or similar material and by implementing the best management practices from the Caltrans National Pollutant Discharge Elimination System statewide storm water permit.

- SJKF-9: Prior to any ground disturbance, a preconstruction survey will be conducted for the San Joaquin kit fox. The preconstruction survey will be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance or construction activities. The survey will identify any potential kit fox dens. The status of all potential dens will be determined and mapped. Potential dens will be monitored with tracking medium for 3 days to determine the current use. If no kit fox activity is observed during this period, then the den will be excavated by hand or carefully with equipment provided by the contractor, under the direction of the biologist to preclude subsequent use. If kit fox activity is observed at a den, Caltrans will contact the U.S. Fish and Wildlife Service for further coordination.

- SJKF-10: Written results of the preconstruction survey will 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 will be notified immediately. If the preconstruction survey reveals an active natal den or new information, Caltrans will notify the U.S. Fish and Wildlife Service immediately for further consultation.

Other Nesting Birds and Native Migratory Birds

Avoidance and Minimization Efforts

The following avoidance and minimization will be implemented for potential impacts to special -tatus and native migratory birds:

- BIRD-1: Schedule vegetation removal between September 1 to February 14, outside of the typical nesting bird season. If construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 15 to August 31), a nesting bird survey will be conducted by a qualified biologist no more than 2 weeks (14 days) prior to construction. If an active nest is found, the Caltrans biologist will determine an appropriate buffer based on the habits and needs of the species. The

buffer area will be avoided until a qualified biologist has determined that juveniles have fledged and no longer dependent on the nest.

- BIRD-2: Active bird nests will not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, destroyed, injured, or harassed at any time.

Crotch and Western Bumble Bees

Avoidance and Minimization Efforts

The following avoidance and minimization measure will be implemented for potential impacts to bumble bee habitat resulting from the project:

- BEE-1: Annual grassland and oak woodland habitats that are temporarily impacted during construction will be replaced onsite at a minimum ratio of 1-to-1 using a hydroseed mixture containing locally present, native flowering species that attract a variety of pollinators, such as milkweed, lupine, gumweed, goldenrod, and clover.

Northern Legless Lizard, Western Pond Turtle, and Coast Horned Lizard

Avoidance and Minimization Efforts

Numerous measures included for the California red-legged frog are also applicable to the northern legless lizard, coast horned lizard, and western pond turtle. In addition, the following measure will be implemented:

- LTS-1: If northern legless lizards, coast horned lizards, or western pond turtles are detected in the project area during construction, a qualified biologist or trained designee will move them out of harm's way.

Jurisdictional Wetlands, Other Waters, and Riparian Habitat

Avoidance and Minimization Efforts

The following avoidance and minimization measures will be implemented for potential impacts to these jurisdictional areas resulting from the project:

- WR-1: Prior to construction, Caltrans will obtain permits and agreements from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service, as applicable to project impacts.

- WR-2: No work or temporary structures will be permitted or allowed below the ordinary high water mark in the stream of Alisal Creek.

- WR-3: Prior to construction, Caltrans will prepare a Mitigation and Monitoring Plan to offset impacts to vegetation and natural habitats. The plan will be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions, as required.

Caltrans will implement the Mitigation and Monitoring Plan as necessary during construction and immediately following project completion.

- WR-4: Prior to any ground-disturbing activities, Environmentally Sensitive Area boundary markers or fencing will be installed around jurisdictional resources, coastal zone Environmentally Sensitive Habitat Areas, and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas will be noted on design plans and delineated in the field prior to the start of construction activities.

- WR-5: Minimize removal of native vegetation in riparian habitats by trimming above the ground surface rather than grubbing out roots wherever feasible.

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

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

- WR-8: During construction, pollution and erosion control measures will be implemented. Temporary large sediment barrier, fiber rolls, or barriers will be installed as needed between the project construction features and any stream, waterbody, or riparian habitat. The discharge of wet concrete, concrete dust, sediment, construction debris or other pollutants into any stream or waterbody will be prevented.

- WR-9: If feasible, staging areas for equipment and vehicle fueling and storage will be located at least 100 feet away from the top of bank of any stream or aquatic area, and in a location where fluids or accidental discharges cannot flow into the stream or aquatic area. If the 100-foot buffer is not feasible, then secondary containment shall be provided to ensure fluids or accidental discharges do not flow into a stream or aquatic area.

- WR-10: After construction has been completed, natural contours and vegetation will be restored as close as possible to their original condition following landscaping plans.

Compensatory Mitigation

The goal of compensatory mitigation is to prevent a net loss of wetlands or other aquatic resource acreage, functions, and values. Several types of compensatory mitigation are available to offset impacts to wetlands, other

waters, and riparian habitat, including creation, rehabilitation, and enhancement.

- WR-11: Mitigation is proposed at a 1-to-1 ratio (acreage) for temporary impacts, a 3-to-1 ratio (acreage) for permanent impacts to riparian and wetland vegetation. As currently planned, mitigation for temporary and permanent impacts to riparian, wetland, and stream habitat will be completed onsite, by restoring and improving existing conditions, including replacing non-native and invasive species with native riparian and wetland species.

Oak Woodlands

Compensatory Mitigation

- OAK-1: No removal of coast live oak trees is currently anticipated. If tree removal does occur, oak trees will be replaced a minimum ratio of 3-to-1. Oak trees will be replanted within or adjacent to existing oak woodlands on Caltrans right-of-way, within the project area.

Invasive Species

Avoidance and Minimization Efforts

- INV-1: Only clean fill shall be imported. When practicable, invasive exotic plants in the project site shall be removed and properly disposed. Inclusion of any species that occurs on the Cal-IPC Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project will be avoided.

2.1.5 Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memo dated October 7, 2021, it was determined that project work would occur in areas that have undergone heavy modification in the past to cut, fill, flatten, drain, and contour. There is no intact or original topography at any of the culvert locations. Therefore, 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**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

2.1.6 Energy

Project construction would require the use of energy resources. Construction of the project is necessary to restore assets from poor condition and meet current standards. During operation, the two overhead signs, two pumping plants, and two count stations would continue to use electricity as necessary to maintain operation. The three new changeable message signs would consume electricity as necessary to display real-time traffic information to users of the highway. Though energy would be required to construct and operate the project, the use of energy would not be wasteful, inefficient, or unnecessary. Therefore, the following significance determinations have been made:

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

2.1.7 Geology and Soils

A paleontological identification report was completed on February 18, 2022, and District Preliminary Geotechnical Report was completed on February 10, 2018. In addition, the U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey Map Viewer was used to analyze geologic and soil characteristics in the project area. Considering the geologic and soil traits in the project area, 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?	**No Impact**
iii) Seismic-related ground failure, including liquefaction?	**No Impact**
iv) Landslides?	**No Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**No 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

The project site spans approximately 72 miles along US 101 in Monterey County, with project work to occur at specific locations along the project length. The project alignment is within the Salinas Valley, between the Santa Lucia mountain range on the west and the Gabilan mountain range on the east. The Salinas Valley and Santa Lucia and Gabilan mountain ranges are part of the Coast Ranges Geomorphic Province of California. The Coast

Ranges are characterized by a series of northwest-southeast trending mountain ranges and valleys, controlled by northwest trending folds and faults of the San Andreas Fault system.

The Salinas Valley is underlain by the granitic basement rocks of the Salinian block within the Coast Ranges Province. The most widespread surficial geologic units mapped in the Salinas Valley area are surficial non-marine alluvial sediments associated with the Salinas River. These sediments range from recent sands and gravels of the active riverbed to mixtures of clays, silts, sands, and gravels of the valley fill alluvium (Holocene age) or older terrace deposits (late Pleistocene). The embankment fills are composed of soil materials locally derived from these geologic units. The terrestrial Aromas Sand deposits (late Pleistocene) are exposed in the foothills north of Prunedale along with minor outcroppings of the underlying granitic bedrock that are exposed north of Crazy Horse Canyon Road to the county line.

Within the project site, soil units that are expansive and/or susceptible to erosion are known to exist. Many of the culvert locations are in embankment and roadbed fills that come from the local geologic materials.

Despite the geomorphic and soil characteristics, the project is not anticipated to alter or exacerbate existing seismic or geologic risks in the region. Most project work, aside from the installation of two new changeable message signs, would occur on or adjacent to existing highway infrastructure. The culvert system and pumping plant repairs would improve stormwater conveyance and reduce erosion. Project construction activities are anticipated to be small-scale and would not have the potential to directly or indirectly increase geologic or seismic risk.

Environmental Consequences

Response to c)—Less than Significant Impact

According to the District Preliminary Geotechnical Report, secondary seismic hazards such as liquefaction or lateral spreading are possible only if the embankment fill materials and natural slopes are saturated from groundwater levels rising above the surface levels of the drainages under the project locations. The project is intended to reduce erosion and flooding, which would decrease soil instability. Therefore, the project is unlikely to experience a landslide, lateral spreading, subsidence, liquefaction, or collapse. The project would not contribute to these conditions.

Response to d)—Less than Significant Impact

According to the U.S. Department of Agriculture, Natural Resources Conservation Service Web Soil Survey Map Viewer, portions of the project site are on soil with a moderate, high, or very high linear extensibility rating. However, many of the culvert locations are in embankment and roadbed fills that are derived from the local geologic materials and appear to contain mixtures of

clayey sands, silty sands, and sandy gravels. These fills are generally formulated to be less susceptible to expansion. In addition, the scope of the project is limited to drainage, pumping plant, sign, and traffic management system improvements along a segment of the existing highway. Considering the scope of the work, the project would not directly or indirectly create substantial risks to life or property due to the expansive soil within the project limits.

2.1.8 Greenhouse Gas Emissions

Considering the information in the Greenhouse Gas Technical Memo dated July 21, 2020, and the Climate Change Technical Report dated March 2022, the following significance determinations have been made:

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

Affected Environment

The project runs along US 101 in Monterey County, between post miles R28.23 and 100.3. This stretch of US 101 is four lanes, classified as an *Other Freeway or Expressway*. The project is in a mostly rural area, with urbanized segments. The most prominent urbanized segments along the project length are in the cities of Salinas and King City. Salinas is about 13 miles from the northernmost project limit; the center of King City is about 11 miles from the southernmost project limit. Salinas has a population density of over 6,000 people per square mile, and King City has a population density of over 3,500 people per square mile. The economy through the project area is primarily agriculture-based. US 101 is the main transportation route to and through the areas for both passenger and commercial vehicles.

The U.S. Environmental Protection Agency is responsible for documenting greenhouse gas emissions nationwide, and the California Air Resources Board does so for the state.

The Transportation Agency for Monterey County serves as Monterey County's Regional Transportation Planning Agency. The Transportation Agency for Monterey County is responsible for developing a Regional Transportation Plan for the county, which serves as a basis for the allocation of state and federal transportation funds to transportation projects within the county over a long-

range timeframe. The Transportation Agency for Monterey County is one of three regional transportation planning agencies within the larger Metropolitan Planning Organization area of the Association of Monterey Bay Area Governments. The Association of Monterey Bay Area Governments is responsible for developing the 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy, which aims to maintain and improve the transportation system to meet the diverse needs of the region through 2040.

Environmental Consequences

Response to a)—Less than Significant Impact

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

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

In general, with use of long-life pavement, improved traffic management plans, and changes in materials, the project's greenhouse gas emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities. Vegetation removal would be required at certain culvert work locations to complete construction. Mitigation and minimization requiring restoration of vegetation, where appropriate, after construction is complete is included in the project.

Construction climate change emissions were estimated using the CAL-CET modeling tool using default settings for a Traffic Safety and Operation project. The estimated total average carbon dioxide emission is 304 tons per year, with the construction phase anticipated to take approximately 220 working days. The estimated total of average carbon dioxide equivalent emissions is about 298 tons generated over the 220-day construction period. Note that these totals are based on assumptions made during the environmental planning phase of the project and are considered estimates of energy use.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7 1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all Air Resources Board emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and

statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce greenhouse gas emissions. An additional Standard Specification that will be complied with during construction of this project and would reduce greenhouse gas emissions during construction is Section 14-10 Solid Waste Disposal and Recycling. Recycling greater quantities of construction waste would help offset greenhouse gas emissions. Also, Standard Specification Section 12 Temporary Traffic Control outlines the standards for properly implementing traffic controls during construction. Standard Specification 21-2.02K Compost will guide the inclusion of compost or mulch in the landscape plan where appropriate. Landscaping components, such as mulch and compost, improve carbon sequestration rates in soils and reduce organic waste.

The project will require revegetation per avoidance, minimization, and mitigation measures, and the revegetation will be detailed in a Landscape Plan. It is expected that revegetation efforts to restore vegetation removed during the construction process would help offset construction-related greenhouse gas emissions. In addition, a traffic control plan and construction staging plan will be developed to guide traffic and maximize traffic efficiency while considering safety and construction needs. Standard Specification Section 12 Temporary Traffic Control will guide implementation of the traffic control plan.

To minimize the project's greenhouse gas emissions during construction, the avoidance and minimization measures listed below will be implemented.

Avoidance and Minimization Measures

- GHG-1: Where feasible, limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.
- GHG-2: For improved fuel efficiency from construction equipment:
    - Maintain equipment in proper tune and working condition.
    - Use right sized equipment for the job.
    - Use equipment with new technologies.
- GHG-3: Where feasible, use alternative fuels such as renewable diesel for construction equipment.
- GHG-4: Where feasible, use solar-powered construction and signaling equipment.
- GHG-5: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction.

- GHG-6: Maximize use of recycled materials in the project construction to the extent feasible.
- GHG-7: Recycle existing project features onsite, where feasible.
- GHG-8: Reduce construction waste. For example, reuse or recycle construction and demolition waste.
- GHG-9: Schedule truck trips outside of peak morning and evening commute hours when feasible.
- GHG-10: Equipment staging will be planned to minimize traffic conflicts and increase construction efficiency.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment that was prepared for hazardous waste dated February 22, 2022, and the District Preliminary Geotechnical Report completed on February 10, 2018, 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?	**No 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?	**No Impact**
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	**Less Than Significant Impact**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	**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?	**Less Than Significant Impact**

Affected Environment

Hazardous Waste Sites

A review of environmental records and agency databases was performed, pursuant to Government Code Section 65962.5, to inform the hazardous waste Initial Site Assessment. One active Cortese-list site (Berman Steel-Salinas; 27350001) and one closed/certified site (Firestone Tire Salinas Plan, 27300001) occur along the project alignment in the vicinity of Spence Road (post mile 80.0 and post mile 82.7, respectively), but would not be affected by project construction. Numerous closed cleanup cases on the Regional Water Quality Control Board's GeoTracker database were also identified along the US 101 corridor through the project limits, but any residual contamination from these closed cases is not expected to extend into the area of potential effects or be encountered during construction. No known contamination is expected to be encountered during project construction.

Schools

The project spans a total length of about 72 miles along US 101 in Monterey County. Project work would occur intermittently along the length of the project. Several schools exist within one-quarter mile of the project limits, including Prunedale Elementary School, Laurelwood Elementary School, Sherwood School, Gonzales High School, and King City High School.

Emergency Response

US 101 is an important route for emergency response and evacuation within Monterey County. Surface road and highway transportation routes are listed as primary evacuation routes by the County of Monterey Emergency Operations Plan.

Environmental Consequences

Response to c)—Less Than Significant Impact

As mentioned above, several schools are located within one-quarter mile of the project limits. Construction activities would generate emissions and require use of materials that, while not considered hazardous when used correctly, could be irritants to sensitive individuals or be damaging to the environment in large quantities. In addition, existing hazardous materials have been identified within the project limits. These hazards and the management procedures are explained below.

Aerially Deposited Lead

Aerially deposited lead is found along roadways throughout California due to historic use of leaded gasoline in automobiles. Soils contaminated with aerially deposited lead have been identified within the project limits—to a depth of 0.5 feet in exposed soils along the existing right-of-way, from post mile 44.0 to post mile100.3. Management and disposal (if required) of aerially deposited lead would follow Caltrans Standard Specifications and the provisions of the 2016 Agreement for Aerially Deposited Lead between Caltrans and the Department of Toxic Substances Control, as specified in the avoidance and minimization measures below.

Exposed soils from post miles 28.3 to 44.0 are unregulated for aerially deposited lead and can be used or disposed of without restriction following the Standard Specifications for Earth Material Containing Lead and the provisions of the 2016 Agreement for Aerially Deposited Lead between Caltrans and the Department of Toxic Substances Control, as specified in the avoidance and minimization measures.

If soils will be exported from the project site, additional soil testing during the project design phase may be required to document site-specific lead concentrations.

Yellow Thermoplastic or Traffic Stripe

Yellow thermoplastic and traffic stripe containing elevated concentrations of lead were commonly used on highways for many years. The older yellow thermoplastic and traffic stripe have been removed and replaced with materials containing lower lead concentrations. If stripe or thermoplastic must be removed as part of the project, appropriate Standard Specifications specified below will be implemented. In addition, a Lead Compliance Plan will need to be developed and implemented by the construction contractor.

Treated Wood Waste

Caltrans guardrail supports and signposts are frequently composed of wood that has been treated with chemical preservatives to prevent rot or insect attack. Treated wood waste is considered to be a California hazardous waste.

Treated wood waste may be generated from the reconstruction and disposal of guardrail posts. If treated wood waste will be disposed of as part of the project, Standard Specifications for proper handling and disposal will be complied with, as specified below.

With implementation of specified Standard Specifications, adverse effects to human health or the environment would not be expected. No significant impacts to nearby schools would occur.

Seismic Upset

The project would not emit hazards due to seismic upset. The project would not convey hazardous materials during operation and has no potential for fault rupture, according to the District Preliminary Geotechnical Report.

Response to f)—Less than Significant Impact

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

Response to g)—Less than Significant Impact

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

Avoidance and Minimization Measures

The following measures will be implemented to avoid potential impacts related to hazardous waste:

- HAZ-1: Aerially deposited lead between post miles 44.0 and 100.3 will be managed and, if required, disposed of pursuant to either Standard Specification 14-11.08 Regulated Material Containing Aerially Deposited Lead, or Standard Specification 14-11.09 Minimal Disturbance of Regulated Material Containing Aerially Deposited Lead. The appropriate Standard Specification will be determined during the project design phase depending on the extent of earthwork.

- HAZ-2: Soils between post miles 28.3 and 44.0 will be used or disposed of in accordance with Standard Specification 7-1.02K(6)(j)(iii) Earth Material Containing Lead.

- HAZ-3: The appropriate Standard Specification(s) will be implemented for removal of yellow thermoplastic and/ or yellow stripe. Standard Specification 84-9.03B Remove Traffic Stripes and Pavement Markings will be implemented if the stripe will be removed separately. Standard Specification 36-4 Residue Containing Lead from Paint and Thermoplastic will be implemented if the stripe will be removed as part of a cold-plane or grinding operation.

- HAZ-4: A Lead Compliance Plan will be developed and implemented by the construction contractor for removal of yellow thermoplastic and/ or yellow traffic stripe and disturbance of earth material containing lead.

- HAZ-5: If treated wood waste will be disposed of as part of the project, Standard Specification 14-11.14 Treated Wood Waste will be included in the construction contract for proper management and disposal of treated wood waste.

2.1.10 Hydrology and Water Quality

Considering the information in the Water Quality Assessment Report dated May 23, 2022 and the Location Hydraulic Study dated April 2, 2021, 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;	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	**No 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	**No Impact**
(iv) impede or redirect flood flows?	**No Impact**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	**No Impact**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	**No Impact**

Affected Environment

Monterey County is underlain with aquifers that provide a source of groundwater. Groundwater is the principal source of water in the county, accounting for more than 80 percent of the total water use.

There are six water basins within Monterey County: Pajaro Valley, Prunedale, Salinas Valley, Marina-Fort Ord, Carmel, and El Toro. Most of these areas include sub-basins that help further define and localize water issues. Per the Region 3 Watershed Management Initiative, pollutants of concern in the Salinas River Watershed are seawater intrusion, nitrates and minerals in groundwater, nutrients, pesticides, heavy metals and sedimentation. Suspected sources of nitrate pollution include wastewater discharges, agriculture return water, and onsite wastewater treatment system overloading. The receiving waters are listed as 2014/2016 303(d) impaired.

Impacts to jurisdictional wetlands and other waters are addressed in *Section 2.1.4 Biological Resources*.

Environmental Consequences

Response to a)—Less Than Significant Impact

Caltrans projects are subject to the requirements of the Caltrans National Pollution Discharge Elimination Permit, which regulates discharge of water pollutants in compliance with the Clean Water Act. The permit includes Waste

Discharge Requirements, which must be complied with to remain in compliance with the permit. The permit also includes compliance instructions.

A Waste Discharge Requirement for trash was recently added to the permit through the Trash Amendment. As required by the Trash Amendment, Caltrans has prepared the Trash Implementation Plan that specifies Significant Trash Generating Areas where Caltrans is required to install Full Trash Capture Treatment Best Management Practices. Full trash capture is required by December 2030 in Significant Trash Generating Areas, and the permit is considered the plan to achieve full trash capture by the deadline. Until full trash capture is accomplished in Significant Trash Generating Areas, Caltrans remains in violation of this waste discharge requirement.

Sediment-laden Flow

During construction, the project's disturbed soil area is anticipated to be 5.17 acres. The 5.17 acres would be divided into separate segments, with maximum of 0.57 acre of disturbed soil area at any separate location one-quarter mile or more apart. As stated in the Water Quality Assessment Report, a Water Pollution Control Plan will be prepared for construction. Effective combinations of temporary and permanent erosion and sediment controls will be used to control stormwater during construction. The temporary best management practices will effectively minimize runoff during construction and prevent water quality degradation.

The project would rehabilitate culverts in poor condition and upgrade existing pumps and electrical control systems at pump plant locations. One pump plant at post mile 82.48 would be upsized to increase pumping capacity or wet well storage would be increased for greater water storage capacity. The second pump plant, at post mile 66.63, would be rehabilitated to ensure continued control of stormwater flows. During operation, these improvements would ensure adequate capacity and performance during storms and would prevent future roadway and embankment failure. The improvements would refine the sediment-laden flow to the impaired receiving waters and contribute to an improvement in the overall health of the receiving waters. The project would not contribute to pollutants of concern in the Salinas River Watershed. Therefore, a net reduction in sediment-laden flow would result.

Trash Capture

Some individual locations within the project limits lie in moderate to high Significant Trash Generating Areas. The inclusion of Full Trash Capture Treatment Best Management Practices must be considered for the project, but inclusion is not required if funding limitations make it infeasible. For this project, trash capture was considered but has not been included due to limited funding. Though Caltrans remains in violation of the Waste Discharge Requirement for trash at this time, the project will not exacerbate the existing violation. The existing permit serves as the plan to address this violation.

Therefore, the project would have a less than significant impact, with continued compliance with the permit.

Avoidance and Minimization Measures

- HYDRO-1: Prepare a Water Pollution Control Plan and implement construction best management practices, as specified in the Water Quality Assessment Report. Also implement any Caltrans Standard Specifications for erosion and stormwater control during construction.

- HYDRO-2: Comply with the requirements of the Caltrans National Pollution Discharge Elimination Permit.

2.1.11 Land Use and Planning

Project activities would occur mostly on existing Caltrans right-of-way and on existing easements on US 101. For some of the culvert-related work, the project would require temporary construction easements and use of existing permanent construction easements. However, use of construction easements would not alter existing land use or planning in the region. Project activities would not divide any existing communities and is not anticipated to conflict with any existing land use plan, policy, or regulations in the region.

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	**No Impact**
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	**No Impact**

2.1.12 Mineral Resources

Project activities would involve work on highway features that are located within or immediately adjacent to the Caltrans right-of-way along US 101. The project would have no involvement in the removal or extraction of mineral resources.

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**

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	**No Impact**

2.1.13 Noise

Considering the information in the Noise Technical Memo dated July 21, 2020, 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 project spans approximately 72 miles along the US 101 corridor in Monterey County. Noise generated from traffic generally dominates the noise environment within the project area.

Environmental Consequences

Response to a)—Less Than Significant Impact

The project would not create permanent noise impacts. Adverse noise impacts from construction are not anticipated because construction would be temporary and intermittent, conducted in accordance with Caltrans Standard Specifications, and because local noise levels are significantly influenced by local traffic noise. Construction work will be performed during the day

whenever possible to minimize sleep disturbance. If nighttime construction is necessary, the noisiest construction activities should be done as early in the evening as possible. Caltrans Standard Specifications require the contractor to control and monitor noise resulting from work activities and require that noise levels not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. Noise minimization measures will also be implemented, as specified below.

Response to b)—Less Than Significant Impact

Construction work would involve substantial ground disturbance by mechanical means, which could generate minor groundborne vibration and noise to receptors very close to the work. The effects would be temporary and would not require avoidance, minimization, or mitigation measures.

Avoidance and Minimization Measures

The following minimization measures will be included in the Resident Engineer binder and implemented as appropriate to further minimize temporary construction-noise impacts.

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

- NOISE-2: Notify the public in advance of the construction schedule when construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice will be given two weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The District 5 Public Information Office will post notice of the proposed construction and potential community impacts after receiving notice from the Resident Engineer.

- NOISE-3: Shield especially loud pieces of stationary construction equipment.

- NOISE-4: Locate portable generators, air compressors, and similar equipment away from sensitive noise receptors.

- NOISE-5: Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.

- NOISE-6: District noise staff will be consulted if complaints are received during the construction process.

The following Standard Specification for noise control will be implemented:

- NOISE-7: To minimize impacts on residents' normal nighttime sleep activities, it is recommended that whenever possible construction work be done during the day. If nighttime construction is necessary, the noisiest construction activities will be done as early in the evening as possible. Caltrans Standard Specification 14-8.02 Noise Control will be implemented. This Standard Specification requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

2.1.14 Population and Housing

The project would not be involved in altering the existing capacity or alignment of US 101. Therefore, the project is not anticipated to conflict with any existing population or housing status in the region.

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

Project activities would be limited to the existing alignment of US 101. The project would not impact any planned or existing governmental facilities. The project would maintain public access on US 101 during project construction, and access to any existing governmental facilities in proximity of project work locations would be maintained.

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

2.1.16 Recreation

The project would maintain stormwater management systems and improve information sharing with the traveling public. The project would not include recreational facilities or require the construction or expansion of recreational facilities. The project would not increase the use of parks or recreational facilities.

Question—Would the project:	CEQA Significance Determinations for Recreation
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	**No Impact**
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	**No Impact**

2.1.17 Transportation

The project would not alter the existing alignment or capacity of US 101 and is not anticipated to conflict with any existing or planned transportation-related programs or facilities in the region. The project would not alter existing vehicle miles traveled on US 101. Emergency access on US 101 would be maintained during project construction and would not be altered once the project is completed.

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)?	**Less Than Significant Impact**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**No Impact**
d) Result in inadequate emergency access?	**Less Than Significant Impact**

Affected Environment

The project runs about 72 miles along US 101 in Monterey County. This portion of US 101 is a four-lane major highway through the region, with a posted speed limit of 65 miles per hour throughout most of the project limits. Because of the many agricultural operations within the vicinity of the project, traffic related to agricultural operations is prevalent.

Environmental Consequences

Response to b)—Less than Significant Impact

The project would not contribute to increased vehicle miles traveled during operation because the project does not increase capacity. During construction, vehicle trips necessary to complete the construction would occur. These vehicle trips would be generated in the short term and only as necessary to complete the project repairs and upgrades.

Response to d)—Less Than Significant Impact

The completed project would improve highway reliability by reducing susceptibility of the highway to erosion and flooding in the long term. There would be traffic delays during construction due to temporary closures, ramp closure, and/or one-way traffic control. However, traffic stops and detours

would be executed in accordance with the traffic control plan. Emergency services would be notified of potential disruptions, delays, or detours in advance to minimize impacts to emergency access.

2.1.18 Tribal Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memo dated October 7, 2021, it was determined that project work would occur in areas that have been previously impacted and are outside of any cultural resource boundaries.

Caltrans conducted Native American consultation with the Native American Heritage Commission and tribal members listed by the Native American Heritage Commission who want to be informed of projects in the area where the current project is located. Consultation was initiated for the project under Section 106 of the National Historic Preservation Act and Assembly Bill 52 (Public Resources Code Section 21080.3.1 and 21084.3(c)). Of the 12 tribes contacted, two tribes participated in tribal consultation for the 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

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

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	**Less Than Significant Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**No Impact**
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	**No Impact**
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	**Less Than Significant Impact**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

Affected Environment

The project would rehabilitate existing culvert systems along US 101, improve two pump plants, upgrade two existing overhead signs, upgrade two existing count stations, and install two changeable message signs. Neither project construction nor operation would significantly increase demand for water or wastewater supply or demand. The project also would not alter the functions or demand for electrical, natural gas or telecommunications facilities in the region.

The project is not anticipated to generate excessive amounts of solid wastes that would overwhelm capacities of existing waste management facilities. The project would recycle any recyclable waste materials generated from project

construction. Waste materials generated by project construction would be collected and disposed of properly to meet all state and federal requirements.

Environmental Consequences

Response to a)—Less Than Significant Impact

One utility pole would need to be relocated to accommodate the project. However, the relocation of the utility pole would not have a significant environmental impact.

Response to d)—Less Than Significant Impact

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

2.1.20 Wildfire

According to CalFire's Fire Hazard Severity Zone mapping tool, the project lies within a Local Responsibility Area and the project area is not designated by Monterey County as a Very High Fire Hazard Severity Zone, so there would be no impact related to wildfire.

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?	**No 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**

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?	**Less Than Significant Impact**

Affected Environment

The project includes work at 46 locations along US 101 in Monterey County. The project would require work mostly within the Caltrans right-of-way, aside from some locations where culvert work would occur on immediately adjacent land.

The stretch of US 101 within the project limits is four lanes and classified *Other Freeway or Expressway*. The project is in a mostly rural area, with the urbanized segments. US 101 is the main transportation route to and through the project area for both passenger and commercial vehicles.

Though the biological environment of the area is highly disturbed, numerous biological communities exist within the project area and are explained in further detail in *Section 2.1.4 Biological Resources*. In addition, as explained in *Section 2.1.5 Cultural Resources* and *Section 2.1.18 Tribal Cultural Resources*, project work would occur outside of culturally significant areas. Finally, as explained in *Section 2.1.7 Geology and Soils*, paleontological resources would not be impacted by the project.

Environmental Consequences

Response to a)—Less Than Significant Impact With Mitigation Incorporated

The project was evaluated for potential impacts to biological resources, as explained in Section 2.1.4 Biological Resources. The 49-acre Biological Study Area for the project includes several biological communities. These biological communities range from natural to human-made and include the following: arroyo willow thickets, coast live oak woodland, ruderal habitat, developed area, and invasive species. The project was evaluated for potential effects to these species: California red-legged frog, nesting and migratory birds, crotch and western bumble bees, pallid bat, western mastiff bat, other bat species, San Joaquin kit fox, northern legless lizard, western pond turtle, and coast horned lizard. Avoidance, minimization, and mitigation measures are included to ensure no significant impacts to biological resources remain. 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.

In addition, the project was evaluated for potential impacts to cultural resources, tribal cultural resources, and paleontological resources in *Section 2.1.5 Cultural Resources, Section 2.1.18 Tribal Cultural Resources*, and *Section 2.1.7 Geology and Soils*. It was determined that the project would have no impact to cultural or paleontological resources, and therefore would not eliminate important examples of the major periods of California history or prehistory.

Response to b)—Less Than Significant Impact

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

The first step is to identify resources that must be evaluated for cumulative impacts. The project was evaluated for potential cumulative impacts to the

California red-legged frog, jurisdictional wetlands, other waters, and riparian habitat, and San Joaquin kit fox. The California red-legged frog and jurisdictional wetlands, other waters, and riparian habitat are included in the analysis because the project would have a significant impact on these resources and requires mitigation at the project level. These resources are also in a state of poor health. The San Joaquin kit fox is included in the analysis because the species populations have faced a sharp decline, and the most recent data indicate the resident group no longer exists. The Federal Endangered Species Act Section 7 effects determination is that the proposed project may affect, and is not likely to adversely affect, the San Joaquin kit fox. Due to the sharp decline in population health and the potential for the project to affect San Joaquin kit fox habitat, this resource is included in the cumulative impact analysis.

Step two is the identification of appropriate resource study areas for each of the resources identified. A resource study area is the geographic area within which impacts on a resource are analyzed. The boundaries of a resource study area are often broader than the boundaries used for project-specific analysis, such as a Biological Study Area. The resource study areas were identified based on recommendation by the project biologist, in coordination with the project environmental planner. The resource study areas are as follows:

- Jurisdictional wetlands, other waters, and riparian habitat: The nine watersheds surrounding the Area of Potential Impact with a 5-mile radius buffer around the watersheds, up to, but not including the Pacific Ocean.

- California red-legged frog: The three watersheds surrounding the Area of Potential Impact with a 5-mile radius buffer around the watersheds, up to, but not including the Pacific Ocean.

- San Joaquin kit fox: The range of the species within Central California, with a focus on Monterey County.

Step three is an evaluation of historic context and resource health. Historically, the watersheds in the resource study area were expansive and undisturbed. Flourishing waterways provided habitat for the California red-legged frog and other species. California red-legged frog habitat historically ranged from Marin County southward to northern Baja California. The San Joaquin kit fox historically ranged throughout the San Joaquin, Santa Clara, and Salinas Valleys, and most adjacent valleys and low hills. In the early 1800s, settlers migrated to the region, and intensive agricultural practices and urban development progressed rapidly; this resulted in a sharp decline in the range and health for these resources.

Conversion of wetlands and riparian areas to urban and intensive agricultural land use has degraded and altered the natural landscape. In addition, water diversions, channelization of drainages, flood control efforts, and bridges are

used to control water to accommodate urban and agriculture uses. Many of the stream features in the resource study area are highly modified and under threat of additional modification or removal. Agriculture and urban runoff, as well as introduction of invasive species, have also harmed the habitat. Historic conversion of California red-legged frog habitat within the last 200 years has caused habitat fragmentation and loss as well as a decline in the population of this species. California red-legged frog populations have also been subject to agricultural and urban runoff and predation by invasive species, which were introduced within the past 200 years. The California red-legged frog is gone from 70 percent of its historic range and was listed as a federally threatened species in 1996. Finally, intensive agricultural and urban development have significantly decreased San Joaquin kit fox habitat and fragmented that population. Use of rodenticides and pesticides has also harmed the population. The San Joaquin kit fox was listed as federally endangered in 1967 and listed as state threatened in 1971. Despite recent conservation efforts, these resources are in a state of poor health.

Step four is the identification of project impacts that may contribute to a cumulative impact. See *Section 2.1.4- Biological Resources* for a detailed description of project-level impacts.

Step five is the identification of current and reasonably foreseeable projects within each respective resource study area that may contribute to a cumulative impact to the resources. A total of 43 projects with available environmental documents were identified and were found to have a significant impact to one or more of the three resources of interest. Also, 24 reasonably foreseeable projects were identified that do not have readily available environmental or scoping documents, but have a high probability of significantly impacting one or more of the resources of interest. In some instances, environmental scoping documents were available.

In addition, several city or county general plans identified impacts to these resources. The Monterey Bay 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy also identifies numerous transportation projects, many of which are in the preliminary planning stages, that may impact these resources. The Cumulative Impact Report (bound separately in Volume 2) includes a detailed project list.

Step six is an evaluation of cumulative impacts. It was determined for each of the three resources that the project would contribute to an existing cumulative impact. However, the project's contribution would not be cumulatively considerable since the project impacts would be fully minimized or mitigated to less than significant.

Step seven is documentation and summary of the analysis, as included here and in the Cumulative Impact Report.

Step eight is assessing the need for mitigation and making recommendations. Given the difficulty associated with identifying feasible mitigation measures for cumulative impacts, in accordance with *Caltrans Cumulative Impact Analysis and Growth Related, Indirect Impact Guidance*, the Step eight analysis recommends actions to sustain these resources which the agencies with regulatory authority over the affected resources could potentially take to influence the sustainability of the resource.

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

Jurisdictional Wetlands, Other Waters, and Riparian Habitat and California Red-Legged Frog

Agencies with regulatory authority over wetlands, riparian areas, and California red-legged frog habitat include the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, Central Coast Regional Water Quality Control Board, and U.S. Fish and Wildlife Service. These agencies support efforts to restore and enhance jurisdictional wetlands, other waters, and riparian habitat within the resource study area. Specifically, in coordination with Caltrans and other lead agencies, these agencies can support efforts toward advance mitigation, which reduces temporal loss and provides larger scale restoration opportunities that tend to provide greater connectivity and more successful outcomes. Advance mitigation may occur through mitigation banking, in-lieu fee, or advance permittee-responsible approaches. This would not only directly benefit wetlands and riparian areas but also improve habitat for the California red-legged frog.

San Joaquin Kit Fox

Agencies with regulatory authority over the San Joaquin kit fox include the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. These agencies support wildlife refuge creation and rehabilitation projects. This would benefit the San Joaquin kit fox by providing suitable habitat within the largely degraded resource study area.

Response to c)—Less Than Significant Impact

The intent of the project is to improve existing culvert features and additional highway elements essential for maintaining a quality transportation corridor for use by the traveling public. The project requires avoidance and minimization measures, as well as Standard Specifications, for hazardous waste, aesthetics, and noise. No significant impacts would result to the human environment.

The project will include Caltrans standard measures for hazardous waste testing and monitoring to protect the general public from hazards that could arise from the project's construction activities. The project would not generate hazards, or expose the general public to hazards, that could result in

substantial adverse effects. Therefore, the project is not anticipated to result in considerable impacts to the general public due to hazardous waste.

The project will include avoidance and minimization measures to reduce the impact the project may have on the aesthetic environment. The three changeable message signs and the retaining wall included in the project would permanently add built features not unusual to see in the highway corridor. Construction would also require removal of vegetation in some areas. With implementation of measures listed in *Section 2.1.1 Aesthetics*, the project would minimally affect scenic vistas in the area, the increase in utilitarian appearance and visual clutter would be reduced, and reduced visual quality due to vegetation removal would be remediated. Therefore, these visual changes would cause a minor reduction of rural character and visual quality to the immediate project area.

Finally, the project would inevitably generate noise during the construction process. Avoidance and minimization measures to reduce disturbance due to construction noise are listed in *Section 2.1.13 Noise*.

With the inclusions of the avoidance and minimization measures for hazardous waste, aesthetics, and noise, the project is not expected to result in considerable cumulative impacts to the human environment.

Avoidance, Minimization, and Mitigation Measures

The complete list of Standard Specifications and avoidance, minimization, and mitigation measures associated with this project can be found in *Section 1.5 Standard Measures Included in All Alternatives*, *Section 2.1 CEQA Environmental Checklist* and in *Appendix B Avoidance, Minimization and/or Mitigation Summary*.

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

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September 2021

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 nondiscriminatory 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) 324-8379 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 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

Toks Omishakin
Director

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

Appendix B Avoidance, Minimization and/or Mitigation Summary

2.1.1- Aesthetics

Avoidance and Minimization Measures

- VIS-1: Preserve as much existing vegetation as possible. Prescriptive clearing, grubbing, and grading techniques that save the most existing vegetation possible will be used.

- VIS-2: Revegetate all disturbed areas with native plant species appropriate to each specific work location.

- VIS-3: Replacement planting will include aesthetic considerations as well as the inherent biological goals. Revegetation will include native trees and plants as determined by the Caltrans Biologist and Caltrans District 5 Landscape Architect.

- VIS-4: The aesthetic treatment of traffic management system elements, such as painting, will be determined and approved by District 5 Landscape Architecture.

- VIS-5: The retaining wall at post mile 96.5 shall be aesthetically treated. The aesthetic treatment of the retaining wall will be determined and approved by District 5 Landscape Architecture.

- VIS-6: The changeable message signs, including but not limited to frames, poles, truss systems, catwalks, ladders, and associated hardware will be painted or otherwise colored to visually recede into the setting. Coloring should also include the front and side frames and back panel of the electronic sign panel itself. The color will be determined and approved in conjunction with District 5 Landscape Architecture.

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

2.1.4- Biological Resources

Avoidance, Minimization, and Mitigation Measures

California Red-Legged Frog

Avoidance and Minimization Efforts:

Caltrans anticipates the project will qualify for Federal Endangered Species Act incidental take coverage under the Programmatic Biological Opinion for

Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (U.S. Fish and Wildlife Service 2011). All of the measures in the California red-legged frog Programmatic Biological Opinion for formal consultation will be adhered to and are listed here:

- CRLF-1: Only U.S. Fish and Wildlife Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

- CRLF-2: Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

- CRLF-3: A U.S. Fish and Wildlife Service-approved biologist will survey the project area no more than 48 hours before the onset of work activities for culvert locations C-33 through C-40 where California red-legged frog habitat is present. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site will be in the same drainage to the extent practicable. Caltrans will coordinate with the U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

- CRLF-4: Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

- CRLF-5: A U.S. Fish and Wildlife Service-approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans will designate a person to monitor onsite compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure that this monitor receives the training outlined in Measure CRLF-4 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not

anticipated by Caltrans and U.S. Fish and Wildlife Service during review of the proposed action, they will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the U.S. Fish and Wildlife Service will be notified as soon as possible.

- CRLF-6: During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

- CRLF-7: All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- CRLF-8: Habitat contours will be returned to a natural configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or modification of original contours would benefit the California red-legged frog.

- CRLF-9: The number of access routes, size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

- CRLF-10: Caltrans will attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal for culvert locations C-33 through C-40, where California red-legged frog habitat is present. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

- CRLF-11: To control sedimentation during and after project completion, Caltrans shall implement best management practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act received for the project. If best management practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

- CRLF-12: If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.094 inch (2.38 millimeters) to prevent California red-legged frogs, tadpoles, and other aquatic organisms from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.

- CRLF-13: Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that may attract California red-legged frogs.

- CRLF-14: A U.S. Fish and Wildlife Service-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs, signal and red swamp crayfish, centrarchid fishes, and catfish from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

- CRLF-15: If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

- CRLF-16: To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force will be followed at all times.

- CRLF-17: Project sites will be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

- CRLF-18: Caltrans will not use herbicides as the primary method used to control invasive, exotic plants. However, if Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it will implement the following additional protective measures for the California red-legged frog:

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

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

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

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

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

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

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

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

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

    j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a

location where a spill would not drain directly toward aquatic habitat. Caltrans will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

- CRLF-19: Upon completion of the project, Caltrans will ensure that a Project Completion Report is completed and provided to the U.S. Fish and Wildlife Service, following the template provided with the Programmatic Biological Opinion. Caltrans will include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation.

- CRLF-20: Upon completion of any project for which this programmatic consultation is used, Caltrans will ensure that a Project Completion Report is completed and provided to the Ventura Fish and Wildlife Office. A copy of the form is enclosed. Caltrans should include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation. In addition, Caltrans will reinitiate formal consultation in the event any of the thresholds are reached.

Compensatory Mitigation:

Measures described below, under *Jurisdictional Wetlands, Other Waters, and Riparian Habitat*, will benefit California red-legged frog and ensure any suitable habitat onsite that is temporarily impacted will be restored.

San Joaquin Kit Fox

Avoidance and Minimization Efforts:

- SJKF-1: If San Joaquin kit foxes are detected in the project limits, then the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife must be consulted pursuant to Section 7 of the Federal Endangered Species Act and the California Endangered Species Act, respectively. All project activities shall cease until consultation is complete and the necessary take authorization is obtained.

Caltrans will implement the following standard minimization and avoidance measures per the U.S. Fish and Wildlife Service Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance:

- SJKF-2: Project employees will be directed to exercise caution when commuting within listed species habitats. A 25-mile-per-hour speed limit will be observed in all project areas, except on county roads and state and

federal highways. Cross-country travel by vehicles will be prohibited outside of the project area unless authorized by the U.S. Fish and Wildlife Service. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

- SJKF-3: Prior to any ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors' employees will attend an employee education program conducted by a Caltrans- or U.S. Fish and Wildlife Service-approved biologist. The program will consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology and legislative protection, and measures to avoid impacts to the species during project implementation.

- SJKF-4: A litter control program will be initiated at each project site. No pets or firearms (except for law enforcement officers and security personnel) will be allowed onsite.

- SJKF-5: Excavations deeper than 2 feet will be covered with plywood or similar material at the end of each workday, or escape ramps put in place to prevent any entrapment. Each excavation will be inspected thoroughly before being filled.

- SJKF-6: All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater stored on the construction site overnight will be thoroughly inspected for San Joaquin kit foxes prior to being buried, capped, or otherwise used or moved. If a San Joaquin kit fox is discovered inside a pipe, the pipe should 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.

- SJKF-7: The resident engineer or their designee will be responsible for implementing these conservation measures, and the Caltrans biologist will represent the point of contact for the project.

- SJKF-8: Restoration and vegetation work will use California endemic plant materials from onsite or local sources. Loss of soil from runoff or erosion will be prevented using fiber rolls or similar material and by implementing the best management practices from the Caltrans National Pollutant Discharge Elimination System statewide storm water permit.

- SJKF-9: Prior to any ground disturbance, a preconstruction survey will be conducted for the San Joaquin kit fox. The preconstruction survey will be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance or construction activities. The survey will identify any potential kit fox dens. The status of all potential dens will be

determined and mapped. Potential dens will be monitored with tracking medium for 3 days to determine the current use. If no kit fox activity is observed during this period, then the den will be excavated by hand or carefully with equipment provided by the contractor, under the direction of the biologist to preclude subsequent use. If kit fox activity is observed at a den, Caltrans will contact the U.S. Fish and Wildlife Service for further coordination.

- SJKF-10: Written results of the preconstruction survey will 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 will be notified immediately. If the preconstruction survey reveals an active natal den or new information, Caltrans will notify the U.S. Fish and Wildlife Service immediately for further consultation.

Other Nesting Birds and Native Migratory Birds

Avoidance and Minimization Efforts:

The following avoidance and minimization will be implemented for potential impacts to special-status and native migratory birds:

- BIRD-1: Schedule vegetation removal between September 1 to February 14, outside of the typical nesting bird season. If construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 15 to August 31), a nesting bird survey will be conducted by a qualified biologist no more than 2 weeks (14 days) prior to construction. If an active nest is found, the Caltrans biologist will determine an appropriate buffer based on the habits and needs of the species. The buffer area will be avoided until a qualified biologist has determined that juveniles have fledged and no longer dependent on the nest.

- BIRD-2: Active bird nests will not be disturbed, and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, destroyed, injured, or harassed at any time.

Crotch and Western Bumble Bees

Avoidance and Minimization Efforts:

The following avoidance and minimization measures will be implemented for potential impacts to bumble bee habitat resulting from the project:

- BEE-1: Annual grassland and oak woodland habitats that are temporarily impacted during construction will be replaced onsite at a minimum ratio of 1-to-1 using a hydroseed mixture containing locally present, native

flowering species that attract a variety of pollinators, such as milkweed, lupine, gumweed, goldenrod, and clover.

Northern Legless Lizard, Western Pond Turtle, and Coast Horned Lizard

Avoidance and Minimization Efforts:

Numerous measures included for the California red-legged frog are also applicable to the northern legless lizard, coast horned lizard, and western pond turtle. In addition, the following measure will be implemented:

- LTS-1: If northern legless lizards, coast horned lizards, or western pond turtles are detected in the project area during construction, a qualified biologist or trained designee will move them out of harm's way.

Jurisdictional Wetlands, Other Waters, and Riparian Habitat

Avoidance and Minimization Efforts:

The following avoidance and minimization measures will be implemented for potential impacts to these jurisdictional areas resulting from the project:

- WR-1: Prior to construction, Caltrans will obtain permits and agreements from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service, as applicable to project impacts.

- WR-2: No work or temporary structures will be permitted or allowed below the ordinary high water mark in the stream of Alisal Creek.

- WR-3: Prior to construction, Caltrans will prepare a Mitigation and Monitoring Plan to offset impacts to vegetation and natural habitats. The plan will be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions, as required. Caltrans will implement the Mitigation and Monitoring Plan as necessary during construction and immediately following project completion.

- WR-4: Prior to any ground-disturbing activities, Environmentally Sensitive Area boundary markers or fencing will be installed around jurisdictional resources, coastal zone Environmentally Sensitive Habitat Areas, and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas will be noted on design plans and delineated in the field prior to the start of construction activities.

- WR-5: Minimize removal of native vegetation in riparian habitats by trimming above the ground surface rather than grubbing out roots wherever feasible.

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

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

- WR-8: During construction, pollution and erosion control measures will be implemented. Temporary large sediment barrier, fiber rolls, or barriers will be installed as needed between the project construction features and any stream, waterbody or riparian habitat. The discharge of wet concrete, concrete dust, sediment, construction debris or other pollutants into any stream or waterbody will be prevented.

- WR-9: If feasible, staging areas for equipment and vehicle fueling and storage will be located at least 100 feet away from the top of bank of any stream or aquatic area, and in a location where fluids or accidental discharges cannot flow into the stream or aquatic area. If the 100-foot buffer is not feasible, then secondary containment shall be provided to ensure fluids or accidental discharges do not flow into a stream or aquatic area.

- WR-10: After construction has been completed, natural contours and vegetation will be restored as close as possible to their original condition following landscaping plans.

Compensatory Mitigation:

- WR-11: Mitigation is proposed at a 1-to-1 ratio (acreage) for temporary impacts, a 3-to-1 ratio (acreage) for permanent impacts to riparian and wetland vegetation. As currently planned, mitigation for temporary and permanent impacts to riparian, wetland and stream habitat will be completed onsite, by restoring and improving existing conditions, including replacing non-native and invasive species with native riparian and wetland species.

Oak Woodlands

Compensatory Mitigation:

- OAK-1: No removal of coast live oak trees is currently anticipated. If tree removal does occur, oak trees will be replaced a minimum ratio of 3-to-1. Oak trees will be replanted within or adjacent to existing oak woodlands on Caltrans right-of-way, within the project area.

Invasive Species

Avoidance and Minimization Efforts:

- INV-1: Only clean fill shall be imported. When practicable, invasive exotic plants in the project site shall be removed and properly disposed. Inclusion of any species that occurs on the Cal-IPC Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project will be avoided.

2.1.8- Greenhouse Gas Emissions

Avoidance and Minimization Measures:

- GHG-1: Where feasible, limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.
- GHG-2: For improved fuel efficiency from construction equipment:
    - Maintain equipment in proper tune and working condition.
    - Use right sized equipment for the job.
    - Use equipment with new technologies.
- GHG-3: Where feasible, use alternative fuels such as renewable diesel for construction equipment.
- GHG-4: Where feasible, use solar-powered construction and signaling equipment.
- GHG-5: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction.
- GHG-6: Maximize use of recycled materials in the project construction to the extent feasible.
- GHG-7: Recycle existing project features onsite, where feasible.
- GHG-8: Reduce construction waste. For example, reuse or recycle construction and demolition waste.
- GHG-9: Schedule truck trips outside of peak morning and evening commute hours when feasible.
- GHG-10: Equipment staging will be planned to minimize traffic conflicts and increase construction efficiency.

2.1.9- Hazards and Hazardous Materials

Avoidance and Minimization Measures:

- HAZ-1: Aerially deposited lead between post miles 44.0 and 100.3 will be managed, and if required, disposed of pursuant to either Standard Specification 14-11.08 Regulated Material Containing Aerially Deposited Lead, or Standard Specification 14-11.09 Minimal Disturbance of Regulated Material Containing Aerially Deposited Lead. The appropriate Standard Specification will be determined during the project design phase depending on the extent of earthwork.

- HAZ-2: Soils between post miles 28.3 and 44.0 will be used or disposed of in accordance with Standard Specification 7-1.02K(6)(j)(iii) Earth Material Containing Lead.

- HAZ-3: The appropriate Standard Specification(s) will be implemented for removal of yellow thermoplastic and/or yellow stripe. Standard Specification 84-9.03B Remove Traffic Stripes and Pavement Markings will be implemented if the stripe will be removed separately. Standard Specification 36-4 Residue Containing Lead from Paint and Thermoplastic will be implemented if the stripe will be removed as part of a cold-plane or grinding operation.

- HAZ-4: A Lead Compliance Plan will be developed and implemented by the construction contractor for removal of yellow thermoplastic and/or yellow traffic stripe and disturbance of earth material containing lead.

- HAZ-5: If treated wood waste will be disposed of as part of the project, Standard Specification 14-11.14 Treated Wood Waste will be included in the construction contract for proper management and disposal of treated wood waste.

2.1.10- Hydrology and Water Quality

Avoidance and Minimization Measures:

- HYDRO-1: Prepare a Water Pollution Control Plan and implement construction best management practices, as specified in the Water Quality Assessment Report. Also implement any Caltrans Standard Specifications for erosion and stormwater control during construction.

- HYDRO-2: Comply with the requirements of the Caltrans National Pollution Discharge Elimination Permit.

2.1.13- Noise

Avoidance and Minimization Measures:

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

- NOISE-2: Notify the public in advance of the construction schedule when construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice will be given 2 weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The District 5 Public Information Office will post notice of the proposed construction and potential community impacts after receiving notice from the Resident Engineer.
- NOISE-3: Shield especially loud pieces of stationary construction equipment.

- NOISE-4: Locate portable generators, air compressors, and similar equipment away from sensitive noise receptors.

- NOISE-5: Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.

- NOISE-6: District noise staff will be consulted if complaints are received during the construction process.

- NOISE-7: To minimize impacts on residents' normal nighttime sleep activities, it is recommended that whenever possible construction work be done during the day. If nighttime construction is necessary, the noisiest construction activities will be done as early in the evening as possible. Caltrans Standard Specification 14-8.02 Noise Control will be implemented. This Standard Specification requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

List of Technical Studies Bound Separately (Volume 2)

- Visual Impact Assessment
- Air Quality, Greenhouse Gas, and Noise Technical Memo
- Natural Environment Study
- Cultural Resources Screened Undertaking Memo
- Paleontological Identification Report
- Initial Site Assessment
- Water Quality Report
- Location Hydraulic Study
- Preliminary Geotechnical Report
- Climate Change Report
- Cumulative Impact Report

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

Lara Bertaina
District 5 Environmental Division
California Department of Transportation
50 Higuera Street, San Luis Obispo CA 93401

Or send your request via email to: Lara.Bertaina@dot.ca.gov

Or call: 805-779-0792

Please provide the following information in your request:

Project title: Monterey 101 Drainage Improvements Project

General location information: On US 101 in Monterey County from the Paris Valley Road Overcrossing to Dunbarton Road

District number-county code-route-post mile: 05-MON-101-PM R28.23/100.3

EA/Project ID number: 05-1J890/0518000084