

# Santa Cruz 1 Roadside Safety and Drainage System Improvement

On State Route 1 in Santa Cruz County

05-SCR-1-PM 8.2/26.0

Project EA 05-1J960, Project ID 0518000093

State Clearinghouse Number 2022070450

## Initial Study with Mitigated Negative Declaration



Prepared by the  
State of California Department of Transportation

January 2023



## General Information About This Document

The Initial Study circulated for public review and comment for 31 days between July 26, 2022 and August 26, 2022. Comments received during that period are included in Appendix C. Elsewhere, language has been added throughout the document to indicate where a change has been made since the circulation of the draft environmental document. Minor editorial changes and clarifications have not been so indicated.

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State Clearinghouse Number 2022070450  
05-SCR-1-PM 8.2/26.0  
Project EA 05-1J960  
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Rehabilitate drainage culverts, replace lighting, add or replace  
Transportation Management System elements, and pave gore areas  
along State Route 1 from 0.5 mile north of Larkin Valley Road to Laguna  
Road in Santa Cruz (post miles 8.2 to 26.0) in Santa Cruz County

**INITIAL STUDY  
with Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA  
Department of Transportation  
and  
California Transportation Commission



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Jason Wilkinson  
Acting Deputy District Director of Environmental Analysis  
California Department of Transportation  
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1/26/23

Date

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## Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

**State Clearinghouse Number:** 2022070450

**District-County-Route-Post Mile:** 05-SCR-1-8.2/26.0

**EA/Project Identification:** 05-1J960, 0518000093

### Project Description

The California Department of Transportation (Caltrans) proposes to restore multiple drainage culverts, rehabilitate numerous lighting elements, install several Transportation Management Systems and pave gore areas along State Route 1 in Santa Cruz County from 0.5 mile north of Larkin Valley Road to Laguna Road in Santa Cruz (post miles 8.2 to 26.0).

### Determination

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

The project would not have a significant effect on aesthetics/visual resources, air quality, greenhouse gas emissions, hydrology and water quality, and hazards and hazardous materials with the implementation of Caltrans' Standard Specifications, Standard Special Provisions, and avoidance and minimization measures described in the Initial Study and associated documents.

The project will have no significant effect on biological resources because the following mitigation measures will reduce potential impacts to less than significant:

- **BIO-8:** Temporary impacts to jurisdictional waters shall be restored at a 1-to-1 ratio (acreage). Compensatory mitigation shall be provided at a 3-to-1 ratio (acreage) for permanent impacts to jurisdictional waters. Replacement plantings shall include appropriate native tree and understory species. To ensure replacement planting success, monitoring and an appropriate plant establishment period will be required, which will include annual inspections, weeding, and replacement of unsuccessful plants, if needed. It is likely that a 1-year plant establishment period will be required. Replacement plantings shall be detailed in Caltrans' Landscape Architecture Landscape Planting Plan and the final Mitigation and Monitoring Plan during the Plans, Specifications, and Estimates

phase and finalized through the permit review process with regulatory agencies. The Mitigation and Monitoring Plan shall be developed in coordination with a biologist, include mitigation commitments, developed planting specifications and grading plans to ensure survival of planted vegetation and re-establishment of functions and values, and be consistent with standards and mitigation commitments from the jurisdictional agencies.

- **BIO-9:** [The following text has been modified since the draft environmental document was circulated.] Native trees with a diameter at breast height of six inches or greater shall be replanted at a minimum 10-to-1 replacement ratio within or adjacent to existing woodlands or riparian areas within the Caltrans right-of-way within the project area as part of the project's landscaping plans.

*Jason Wilkinson*

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Jason Wilkinson  
Acting Deputy District Director of Environmental Analysis  
California Department of Transportation

1/26/23

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Date

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# Chapter 1 Proposed Project

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## 1.1 Introduction

State Route 1 is the main route connecting the southern and central areas of Santa Cruz County and is the only continuous commuter route linking Watsonville, Capitola, Aptos, Cabrillo College, Santa Cruz, and the University of California, Santa Cruz. State Route 1 is also the southern end for State Route 9 and State Route 17 and brings heavy tourist traffic to coastal destinations in Santa Cruz and Monterey counties.

The Santa Cruz 1 Roadside Safety and Drainage System Improvements project runs along State Route 1 where it passes through Santa Cruz County from 0.5 mile north of Larkin Valley Road to Laguna Road in Santa Cruz (post miles 8.2 to 26.0). The project would restore 30 existing drainage culverts, improve 47 roadside safety locations, rehabilitate 32 lighting elements, and install 12 Transportation Management System elements. The area of potential impact includes culvert areas, gore areas, shoulder widening locations, lighting locations, and counts and loops locations.

Figure 1-1 shows the project vicinity, and Figure 1-2 shows the locations where improvements are proposed. Several project locations are within the boundaries of the Coastal Zone, as shown in Figure 1-3.

The project is included in the 2020 State Highway Operational Protection Program, under the Asset Management guidelines to meet culvert goals. Roadside safety, lighting elements, Transportation Management Systems and complete street assets were assessed throughout the project limits and added to this project as feasible. Project construction is expected to start in 2025 and span approximately two years. The current programmed cost for the construction of the build alternative is approximately \$12,400,000.

Caltrans, as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act (known as NEPA). Caltrans is also the lead agency under the California Environmental Quality Act (known as CEQA). As the NEPA lead, Caltrans is preparing a separate Categorical Exclusion document for the project. As the CEQA lead, Caltrans has prepared this document—an Initial Study with Mitigated Negative Declaration—for the project.

Figure 1-1 Project Vicinity Map



Figure 1-2 Project Location Map



Figure 1-3 Coastal Zone Location Map



## 1.2 Purpose and Need

### 1.2.1 Purpose

- Improve and restore culverts to their water conveyance purpose, which protects embankments and roadways from potential failure.
- Improve maintenance worker safety and roadside maintainability.
- Replace existing lighting elements that are beyond their useful life and install additional lighting elements to enhance lighting conditions at new locations.
- Replace and add Transportation Management System elements to improve the collection of traffic data and notify the traveling public of traffic conditions.

### 1.2.2 Need

- As documented in the Drainage System Reports for the culverts within the project limits, many deficiencies were noted. These include corroded or worn pipe inverts, perforated pipe sections, joint offsets, and significant ditch, channel, and slope erosion, all of which lead to lower water conveyance capacities and costly emergency repairs.
- The identified gore areas frequently expose maintenance workers to high speed traffic and need to be addressed for roadside safety.
- The District Electrical Unit recommended the rehabilitation of lighting elements that have reached the end of their service life within the project limits.
- Without the proposed Transportation Management System improvements, traffic information collected from within the project limits might be unreliable.

## 1.3 Project Description

The State Route 1 corridor in Santa Cruz County has a mixed urban and rural character. State Route 1 serves as the main connection between the communities of Santa Cruz and Monterey. The corridor is also the main coastal route between the San Francisco Bay Area and the Big Sur Coast and is an important transportation link for long-distance travel for both business and leisure. In addition, it is an important route for freight movement by truck and rail.

The project lies along State Route 1 where it passes through the Santa Cruz area in Santa Cruz County from post miles 8.2 to 26.0. The project would

restore 30 culverts, improve 47 roadside safety locations, rehabilitate 32 lighting elements, and install 12 Transportation Management System elements. The area of potential impact includes culverts, gore areas, shoulder widening locations, lighting locations, and counts and loops locations.

Temporary access roads may be constructed for culvert construction due to steep slopes. It is anticipated that tree removal and pruning will be required at 3 culvert repair locations. Tree removal locations will be refined through project development, and pruning will be in accordance with standard practices. It is anticipated that replacement planting and a one-year plant establishment period will be required to compensate for biological impacts associated with the removal of two trees impacted by construction. Tree replanting will be included in the project plans to offset the loss of any trees.

[The following text has been modified since the draft environmental document was circulated.] The project will require a Clean Water Act Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Clean Water Act Section 401 Water Quality Certification from the Regional Water Quality Control Board, a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife, and Coastal Development Permits from the County of Santa Cruz, City of Santa Cruz, and City of Capitola pursuant to the California Coastal Act. A Mitigation and Monitoring Plan will be prepared to mitigate impacts to jurisdictional areas and coastal Environmentally Sensitive Habitat Areas. (Environmentally Sensitive Habitat Areas or ESHAs are defined in California Coastal Act Section 30107.5 as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.”) Please refer to Section 2.1.4 Biological Resources, Section 2.1.5 Coastal Zone, and Appendix B Coastal Policy Analysis for additional detail on coastal Environmentally Sensitive Habitat Areas.

During construction, it is anticipated one side of the freeway will be worked on at a time (northbound or southbound) and at least one lane will remain open to traffic in each direction.

### **1.3.1 Drainage Culverts**

Under the District 5 Culvert Inspection Program, inventory and assessment activities found that 30 culverts and drainages needed repair or replacement. All 30 culverts have varying levels of invert damage, shape loss, joint separation, and/or outlet scouring. The repair or replacement strategy for each culvert varies depending on each site condition.

Table 1.1 lists the drainage locations, current conditions, and proposed methods and strategies for rehabilitation (Note: several locations were removed during project design, so location numbers are not consecutive).

The term “node” in the table refers to a point along the respective culvert, typically at the entrance or exit, or at a bend in the culvert.

The culverts will be repaired or replaced via the cut and cover method, which is usually accomplished by digging a trench with an excavator. The trench width depends on the pipe diameter, and the depth and slope are determined by the engineer. In some cases, the repair work is not anticipated to have a significant impact on traffic flow because it will take place in the center median or beyond the outside shoulder. However, other locations propose cutting across State Route 1 lanes and will, therefore, require staged construction to ensure that at least one lane of traffic is always available. Other drainage improvements at the locations specified in Table 1.1 include strategies such as: stabilizing the channels and reconstructing ditches, placing new pipes or replacing existing pipes, culvert invert paving, and joint repair.

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**Table 1.1 Culvert Locations and Strategy for Rehabilitation**

| <b>Location Number</b> | <b>Post Mile</b> | <b>Location Description</b>   | <b>Strategy</b>   |
|------------------------|------------------|---|---|
| 5                      | 9.37             | Culvert crosses northbound State Route 1 with drainage inlet at node 2 and headwall at node 1.  | Replace 12-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Connect node 2 to existing drainage inlet. 2-foot cover.   |
| 8                      | 12.08            | Culvert crosses the southbound on-ramp at Park Avenue, node 6 drainage inlet in the southbound on-ramp outside edge of shoulder and node 5 drainage inlet in the side slope between ramp and State Route 1. | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Traffic control will be required for closure of on-ramp during construction and utility conflict due to street/traffic signal at intersection. Minor bush removal will be needed at node 5. Nodes 6 and 5 will be connected to respective drainage inlets. 3-foot cover. |
| 9                      | 12.08            | Culvert is along the Park Avenue, southbound off-ramp inside edge of shoulder.  | Replace 24-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Potential utility conflict due to street/traffic signal at intersection. Minor bush and curb removal will be required. Nodes 10 and 9 will be connected to respective drainage inlets. 6-foot cover.   |
| 10                     | 12.08            | Culvert crosses the southbound off-ramp at Park Avenue.   | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Ramp closure and potential utility conflict due to street/traffic signal at intersection. Nodes 11 and 10 will be connected to respective drainage inlets. 2-foot cover.   |
| 11                     | 12.08            | Culvert crosses southbound lanes at the south end of Park Avenue undercrossing.   | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Caltrans Structures and Geotech will be involved due to proximity to an existing bridge. Removal/replacement of bridge guardrail may be required. Nodes 13 and 12 will be connected to respective drainage inlets. 2-foot cover.   |
| 12                     | 12.08            | Culvert along the Park Avenue northbound off-ramp.  | Replace 24-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Caltrans Geotech will be involved due to deep shoring. Potential utility conflict due to street/traffic signal at intersection. Minor bush and curb removal will be required. Nodes 15 and 3 will be connected to respective drainage inlets. 12-foot cover.             |
| 14                     | 13.59            | Culvert connects to drain inlet on the State Route 1 southbound edge of shoulder, crosses 41 <sup>st</sup> Avenue southbound on-ramp, connects to drain inlet to the right of the on-ramp.                  | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Traffic control for ramp closure during construction and potential utility conflict due to proximity of manhole. Minor bush and curb removal may be required. Each node will be connected to existing drainage inlets. 3-foot cover.                                     |
| 15                     | 14.00            | Culvert on the side of freeway connecting to drain inlet on the State Route 1 northbound edge of shoulder   | Replace 18-inch corrugated steel pipe with 24-inch reinforced concrete pipe using the cut and cover method. Tree trimming and shrub removal may be required. 2-foot cover.  |

| Location Number | Post Mile | Location Description   | Strategy  |
|-----------------|-----------|--|---|
|                 |           | and connecting to drain inlet on the toe of slope.   |   |
| 16              | 14.77     | Culvert crosses State Route 1 northbound lanes diagonally and the Soquel Drive northbound off-ramp. Connects to drain inlet in the median and to drain inlet northbound off-ramp outside edge of shoulder.   | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Temporary ramp closure will be required. Guardrail will need to be removed and replaced. Node 3 is located near an existing freeway light, may require potholing to locate utility. 3-foot cover.  |
| 19              | 16.02     | Culvert crosses State Route 1 and the Morrissey Boulevard southbound off-ramp connecting to drain inlet at outside edge of shoulder of the Morrissey Boulevard southbound off-ramp near a freeway light and flared end section toe of slope of northbound State Route 1. | Replace 30-inch corrugated steel pipe with 30-inch reinforced concrete pipe using the cut and cover method. Node 3 may require potholing to locate conduits. Temporary ramp closure will be required. Due to cut and cover method, concrete median and shoulder guardrail will be removed and replaced. Node 4 flared end section will be replaced. 2-foot cover.   |
| 20              | 17.18     | Culvert crosses southbound off-ramp at State Route 17. Nodes 1 and 2 connect to a concrete-lined channel.  | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Node 1 is close to an electrical panel/light pole, and utility potholing is needed. The culvert will connect to an existing concrete channel. 4-foot cover.  |
| 21              | 17.18     | Culvert connects to drain inlet on southbound off-ramp edge of shoulder from the open concrete channel.  | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. A portion of existing guardrail will be removed and replaced. Electrical pull box near node 3 will require potholing to locate it. Node 2 flows out into a concrete ditch, may require minor concrete work to cement concrete channel. 5-foot cover. |
| 22              | 17.62     | Culvert connects to a drain inlet on the northbound edge of shoulder of State Route 1 from the channel.  | Replace 12-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Culvert is easily accessible via the side embankment and the shoulder of highway. 8-foot cover.  |
| 23              | 17.62     | Culvert crosses southbound lanes connecting to a drain inlet on the edge of shoulder to a drain inlet in center median. Culvert is south of the intersection with River Street intersection.   | Replace 12-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. A portion of the cement concrete center median island at drainage inlet (node 4) will be removed and replaced. Typical temporary traffic control will be required, including at the intersection. 3-foot cover.                                      |

| Location Number | Post Mile | Location Description   | Strategy   |
|-----------------|-----------|--|--|
| 24              | 17.71     | Culvert runs along the center of the median, connecting to drain inlet near the stopping lanes, about 28 feet away from railroad tracks, to a manhole in the stamped concrete center median. | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. A portion of the stamped concrete median island will be removed and replaced. Potholing will be required to avoid railroad utilities. Flagging for railroad along with temporary traffic control will be required. 3-foot cover.  |
| 28              | 18.71     | Culvert connects to two drain inlets crossing State Route 1 south of the Otis Street intersection. Near residential neighborhood and commercial properties.                                  | Replace 18-inch high-density polyethylene pipe with 24-inch reinforced concrete pipe using the cut and cover method. Curb, gutter, and sidewalk areas will be removed and replaced. Potholing will be required for electrical pedestal and streetlight located close to culvert to ensure no utility conflicts. Traffic control will be required and will consider residents, customers, and foot traffic. 3-foot cover. |
| 29              | 19.35     | Culvert crosses 10 feet of southbound State Route 1 mainly parking area, connecting to drain inlet and a manhole.  | Replace 18-inch high-density polyethylene pipe with 24-inch reinforced concrete pipe using the cut and cover method. Replace some areas at curb, gutter, and sidewalk. Storm drain manhole and streetlight located close to culvert; potholing will be required to ensure no utility conflicts. Traffic control to consider customers and foot traffic. 2.5-foot cover.  |
| 30              | 19.35     | Culvert crosses State Route 1 at the intersection with Miramar Drive from a manhole at the northeast corner to a drain inlet at the southwest corner.  | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Replace some curb, gutter, and sidewalk. Culvert next to commercial property. Electric pedestal northeast corner, fire-hydrant on southwest corner, manholes, and traffic light located close to culverts nodes, will require potholing to ensure no utility conflicts. 2-foot cover.                     |
| 31              | 20.41     | Culvert crosses State Route 1 at intersection with Shaffer Road connecting to two drain inlets.  | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Temporary traffic control with flagger will be required. 2-foot cover.  |
| 32              | 21.52     | Culvert connects to drain inlet at the edge of shoulder of northbound State Route 1 to the toe of slope with no end treatment.   | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. A portion of metal beam guardrails on both shoulders will be removed and replaced due to the cut and fill method of construction. 3-foot cover.   |
| 33              | 21.78     | Culvert crosses State Route 1 south of Coast Road from a headwall to the ditch.  | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. A portion of metal beam guardrails on right shoulder will be removed and replaced. Node 6 is connected to a concrete ditch; a portion may be replaced. Temporary traffic control with flagger will be required. 2.5-foot cover.   |
| 34              | 21.78     | Culvert crosses Coast Road at the stop sign and intersection of Coast Road with State Route 1 connecting with a drain inlet and a manhole.   | Replace 18-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Streetlights and overhead lines in the vicinity present a potential utility conflict. 1.5-foot cover.   |

| Location Number | Post Mile | Location Description  | Strategy   |
|-----------------|-----------|---|--|
| 35              | 23.45     | Culvert crosses State Route 1 and both headwalls located at the toe of slope.   | Replace 30-inch corrugated steel pipe with 30-inch reinforced concrete pipe using the cut and cover method. A portion of the metal beam guardrails on both shoulders will be removed and replaced. Overhead lines in the vicinity present a potential utility conflict due to clearance of construction equipment. 2-foot cover.   |
| 36              | 24.16     | Culvert connects to drain inlet at the northbound edge of shoulder of State Route 1 from no end treatment at the toe of slope.        | Replace 15-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Typical temporary one-lane traffic control will be needed. 3-foot cover.  |
| 37              | 24.90     | Culvert connects to drain inlet at the northbound edge of shoulder of State Route 1 from no end treatment at the toe of slope.        | Replace 24-inch reinforced concrete pipe with 24-inch reinforced concrete pipe using the cut and cover method. Removal of two trees will be required. Temporary traffic control with flagger will be required. 10-foot cover.  |
| 38              | 24.90     | Culvert crosses State Route 1, connecting to drain inlet at the northbound edge of shoulder to a headwall at southbound toe of slope. | Replace 18-inch corrugated steel pipe with 24-inch reinforced concrete pipe using the cut and cover method. Node 3 is close to railroad tracks but has more than a 25-foot clearance. Flaggers will be required for train and vehicular traffic. 3.5-foot cover.   |
| 39              | 25.16     | Culvert crosses State Route 1 connected by two headwalls at the toe of slope.   | Replace 36-inch reinforced concrete pipe with 36-inch reinforced concrete pipe with cut and cover method if joint cannot be repaired. Culvert nodes will have to be accessed using Coast Road and Black Ranch Road. Temporary construction easement may be necessary for construction. Some bush removal will be required along with Caltrans Hydraulics involvement. 23-foot cover. |
| 40              | 25.73     | Culvert connects a drain inlet at the edge of shoulder on Laguna Road to a headwall at the toe of slope.                              | Replace 24-inch corrugated steel pipe with 24-inch reinforced concrete pipe using the cut and cover method. Culvert not easily accessible and on side street, will use Laguna Road to access nodes. Metal beam guardrail will be removed and replaced. Typical temporary traffic control will be required. 3-foot cover.   |
| 41              | 25.73     | Culvert crosses Laguna Road connecting to two drain inlets at the edge of shoulder.   | Replace 18-inch corrugated steel pipe with 24-inch reinforced concrete pipe using the cut and cover method. Both drain inlets are next to embankments. 3-foot cover.   |
| 42              | 25.93     | Culvert located along the southbound State Route 1 behind the metal beam guardrail.   | Replace 18-inch corrugated steel pipe with 24-inch reinforced concrete pipe using the cut and cover method. A portion of existing guardrail will be removed and replaced. 3-foot cover.  |

### 1.3.2 Roadside Worker Safety Improvements

Improvements to roadside worker safety features include shoulder widening and beyond-the-gore paving at 47 locations within the project limits. Extended paving of gore areas (triangular shaped areas of land between the highway and the on- and off-ramps) would provide maximum safety considerations for highway workers as it reduces recurring maintenance activities and minimizes worker exposure to traffic because crews are able to park their maintenance vehicles in paved areas. Also, less vegetation maintenance would be needed in paved areas.

Roadway signs at gore paving areas would be installed using a post sleeve so that signs can be quickly replaced in the field. Shoulders and gore locations identified in the project area are in poor condition or are not paved. Gore paving is recommended in the Highway Design Manual, Caltrans maintenance manuals, and Caltrans standard plans to provide long-lasting features that require less maintenance and safer access to perform both routine and emergency maintenance work.

The gore paving locations are listed in Table 1.2.

**Table 1.2 Gore Paving Locations**

| Location Number | Post Mile | Location                                  |
|-----------------|-----------|---|
| 1               | 8.6       | Freedom Boulevard southbound off-ramp     |
| 2               | 9.03      | Rio Del Mar Boulevard northbound off-ramp |
| 3               | 9.03      | Rio Del Mar Boulevard southbound on-ramp  |
| 4               | 9.22      | Rio Del Mar Boulevard northbound on-ramp  |
| 5               | 9.45      | Rio Del Mar Boulevard southbound off-ramp |
| 6               | 10.41     | State Park Drive northbound off-ramp      |
| 7               | 10.41     | State Park Drive southbound on-ramp       |
| 8               | 10.47     | State Park Drive northbound on-ramp       |
| 9               | 10.55     | State Park Drive southbound on-ramp       |
| 10              | 10.62     | State Park Drive northbound on-ramp       |
| 11              | 10.67     | State Park Drive southbound off-ramp      |
| 12              | 11.98     | Park Avenue northbound off-ramp           |
| 13              | 12.03     | Park Avenue southbound on-ramp            |
| 14              | 12.24     | Park Avenue northbound on-ramp            |
| 15              | 12.25     | Park Avenue southbound off-ramp           |

| <b>Location Number</b> | <b>Post Mile</b> | <b>Location</b>   |
|------------------------|------------------|---|
| 16                     | 13.23            | Bay Avenue northbound off-ramp                                  |
| 17                     | 13.27            | Bay Avenue southbound on-ramp                                   |
| 18                     | 13.38            | Bay Avenue northbound on-ramp                                   |
| 19                     | 13.39            | Bay Avenue southbound off-ramp                                  |
| 20                     | 13.52            | 41st Avenue northbound off-ramp                                 |
| 21                     | 13.56            | 41st Avenue southbound on-ramp                                  |
| 22                     | 13.59            | 41st Avenue northbound on-/off-ramp                             |
| 23                     | 13.6             | 41st Avenue northbound on-ramp                                  |
| 24                     | 13.61            | 41st Avenue southbound on-ramp                                  |
| 25                     | 13.66            | 41st Avenue southbound on-/off-ramp                             |
| 26                     | 13.71            | 41st Avenue northbound on-ramp                                  |
| 27                     | 13.79            | 41st Avenue southbound off-ramp                                 |
| 28                     | 14.74            | Soquel Drive northbound off-ramp                                |
| 29                     | 14.75            | Soquel Drive northbound off-ramp                                |
| 30                     | 14.77            | Soquel Drive northbound on-ramp                                 |
| 31                     | 14.83            | Soquel Drive southbound on-ramp                                 |
| 32                     | 14.83            | Soquel Drive southbound on-/off-ramp                            |
| 33                     | 14.85            | Soquel Drive southbound off-ramp                                |
| 34                     | 14.94            | Soquel Drive northbound on-ramp                                 |
| 35                     | 15.66            | Morrissey Boulevard northbound off-ramp                         |
| 36                     | 15.74            | Morrissey Boulevard northbound on-/off-ramp                     |
| 37                     | 15.8             | Morrissey Boulevard southbound on-ramp                          |
| 38                     | 15.83            | Morrissey Boulevard northbound on-ramp                          |
| 39                     | 15.9             | Morrissey Boulevard southbound on-ramp                          |
| 40                     | 15.9             | Morrissey Boulevard southbound on-/off-ramp                     |
| 41                     | 15.95            | Morrissey Boulevard southbound off-ramp                         |
| 42                     | 17.1             | State Route 17 northbound on-ramp from southbound State Route 1 |
| 43                     | 17.15            | State Route 1 southbound off-ramp to northbound State Route 17  |
| 44                     | 17.15            | State Route 1 northbound off-ramp to Ocean Street               |
| 45                     | 17.16            | State Route 1 southbound on-ramp from Plymouth Street           |
| 46                     | 17.28            | State Route 1 northbound on-ramp from Ocean Street              |
| 47                     | 17.34            | State Route 1 southbound off-ramp to Ocean Street               |

### 1.3.3 Lighting Improvements

Numerous light fixtures illuminate roadways, interchanges, and on- and off-ramps within the project limits. The project would make 32 lighting improvements at several interchanges along State Route 1 and south of the San Lorenzo River bridge (see Table 1.3). [The following text has been added since the draft environmental document was circulated.] Three lights would be removed completely at the Freedom Boulevard Interchange. Twenty-six existing lighting elements with a Type 15 (165 watt) bulb will be replaced in kind with a bulb with the same output. The remaining three lighting elements are currently a Type 30 (265 watt) bulb that will be replaced in kind with a bulb with the same output. The changes would vary depending on each site condition and may include demolition or replacement of fixtures and/or foundations, and related excavation for new foundations, service cabinets and utility trenching. Associated conduits would also be replaced, which would result in rewiring the lighting system at each location.

**Table 1.3 Lighting Rehabilitation Locations**

| Post Mile | Quantity | Location                            |
|-----------|----------|-------------------------------------|
| 8.35      | 18       | Freedom Boulevard Interchange       |
| 10.53     | 2        | State Park Drive Interchange        |
| 13.62     | 3        | 41 <sup>st</sup> Avenue Interchange |
| 15.82     | 6        | Morrissey Boulevard Interchange     |
| 17.38     | 3        | South of San Lorenzo River Bridge   |

### 1.3.4 Transportation Management System Improvements

Transportation Management Systems are implemented by Caltrans to monitor, manage, and improve the flow of vehicle traffic, and improve safety. Technologies such as traffic monitoring stations, ramp meters, closed-circuit television cameras, changeable message signs, microwave vehicle detection systems, and count stations are used to collect and send traffic data to transportation management centers.

Locations for proposed Transportation Management System improvements are shown in Table 1.4.

**Table 1.4 Proposed Transportation Management System Improvements**

| Post Mile | Replaced Element      | Location              |
|-----------|-----------------------|-----------------------|
| 8.35      | Install Census Loops  | Freedom Boulevard     |
| 9.01      | Install Census Loops  | Rio Del Mar Boulevard |
| 11.91     | Install Census Loops  | Park Avenue           |
| 13.53     | Install Census Loops  | 41st Avenue           |
| 17.29     | Install Census Loops  | West of Ocean Street  |
| 17.41     | Install Census Loops  | West of Ocean Street  |
| 19.59     | Install Count Station | East of King Street   |

A total of 12 new traffic census stations at the on- and off-ramps of State Route 1 are proposed. This involves one count station and 11 census loops in the on- and off-ramps at six intersections along State Route 1. The count station work would install a new telephone demarcation cabinet and provide commercial power; the census loop work would install a vehicle detector sensor, conduit, and pull boxes.

## 1.4 Project Alternatives

Two alternatives were considered: the build alternative and the no-build alternative. The build alternative is described in Section 1.3 above.

Under the no-build alternative, no improvements would be made to the culverts, lighting elements, or Transportation Management Systems elements, and no gore paving would be done. The no-build alternative would not meet the project’s purpose and need.

Within the project limits, culverts are severely corroded and perforated; at some locations, the shape of the culverts are deformed, with damaged inverts. If culverts are allowed to continue to deteriorate, roadway failure is possible. Without replacement of the Transportation Management System elements, information collected from the project location might be unreliable or incomplete. Without replacement of the proposed lighting, the existing facilities will continue to deteriorate and would not function as intended.

## 1.5 Identification of a Preferred Alternative

[The following text has been added since the draft environmental document was circulated.] The build alternative was identified as the preferred project alternative. The build alternative was chosen because it would address the purpose and need of the project. With the build alternative, culvert condition

and performance would improve, new traffic information would be provided to the traveling public, maintenance worker safety would improve, and existing roadway lighting would be improved.

## **1.6 Standard Measures and Best Management Practices**

This project contains several 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. The contractor will be required to adhere to standard measures and best management practices used on all Caltrans projects during construction. Some of these include, but are not limited to the following:

1. The project would include a Transportation Management Plan that would reduce delays and related short-term increases in greenhouse gas emissions from disruptions in traffic flow during construction.
2. Caltrans Standard Specifications Section 14-9, Air Quality, a part of all construction contracts, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce greenhouse gas emissions.
3. 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 the California Air Resources Board emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce greenhouse gas emissions.
4. Caltrans Standard Specifications Section 14-7.03 provides procedures to follow if unanticipated paleontological resources are discovered at the project site.
5. Caltrans Standard Specifications Section 14-8.02 requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 decibels (dBA) at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. The contractor shall consult the District Noise Specialist if complaints are received during the construction process.
6. During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site,

- and disposed of at the end of each work week. Following construction, all trash and debris shall be removed from work areas.
7. Construction equipment will be free of excessive dirt that may contain weed seed before entering the construction site. If necessary, wash stations either onsite or offsite will be established for construction equipment under guidance of Caltrans to minimize the spread of invasive plants and/or seed within the construction area.
  8. Water quality-related Best Management Practices include job site management and preparation of a water pollution control plan.
  9. Temporary Best Management Practices may include hydraulic mulch, check dams, drainage inlet protection, fiber rolls, concrete washout, and Environmentally Sensitive Area fencing.
  10. 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.
  11. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
  12. Implementation of Caltrans Standard Specifications 14-11.08 and 7-1.02k(6)(j)(iii) for regulated material containing Aerially Deposited Lead.
  13. Implementation of Caltrans Standard Specification 84-9.03B for traffic stripe removal containing lead and/or Caltrans Standard Special Provision 36-4 for work involving resident from grinding and cold-planing that contains lead from paint and thermoplastic.
  14. Preparation of a Lead Compliance Plan in accordance with Caltrans Standard Specification 7-1.02k(6)(j)(ii).
  15. Implementation of Caltrans Standard Special Provision 14-11.14, which requires Caltrans assess the handling and disposal of potential wood waste generated during the project.

## 1.7 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act and other state laws and regulations. Separate environmental documentation, supporting a Categorical Exclusion determination, has been prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by the California Environmental Quality Act, this document may contain references to federal laws and/or regulations (the California Environmental Quality Act, 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).

## 1.8 Permits and Approvals Needed

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

**Table 1.5 Required Permits for Project**

| Agency   | Permit/Approval  | Status   |
|--|--|--|
| U.S. Fish and Wildlife Service                     | Federal Endangered Species Act Section 7 Consultation and Programmatic Biological Opinion for the California red-legged frog and California red-legged frog critical habitat | Request for consultation submitted August 24, 2022; received concurrence October 3, 2022 |
| U.S. Army Corps of Engineers                       | Section 404 Nationwide Permit for impacts to jurisdictional waters   | To be obtained before construction   |
| County of Santa Cruz                               | Coastal Development Permit   | To be obtained before construction   |
| City of Santa Cruz                                 | Coastal Development Permit   | To be obtained before construction   |
| City of Capitola                                   | Coastal Development Permit   | To be obtained before construction   |
| California Department of Fish and Wildlife         | Section 1602 Streambed Alteration Agreement  | To be obtained before construction   |
| Central Coast Regional Water Quality Control Board | Section 401 Water Quality Certification for impacts to “Waters of the State and the U.S.”  | To be obtained before construction   |

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# Chapter 2 CEQA Evaluation

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## 2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the 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, and no further discussion is included in this document.

### 2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated January 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?  | <b>No Impact</b>                                |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <b>No Impact</b>                                |

| 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? | <b>Less Than Significant Impact</b>             |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?   | <b>No Impact</b>                                |

***Affected Environment***

The project spans about 18 miles along State Route 1 and includes rural and suburban settings. The existing visual character of the project area comes mostly from its generally well-vegetated roadsides, agricultural character, and undulating topography. Distant views of hillsides are found to the north, with long-range vistas to the west, and coastal views to the south. More developed regions within the project area are characterized by a mix of suburban and built-up environment alternating with vegetated creeks that cross the highway corridor. Additional highway plantings are within the interchanges, which continue the landscape character of the corridor.

***Environmental Consequences***

Proposed project elements such as structures related to culvert improvements, Transportation Management System elements, and additional paving would be readily visible from the roadway. By themselves, these types of elements are not uncommon and would not be seen as unexpected visual elements in a highway setting. The addition of all these elements together would create a more utilitarian appearance and add a degree of visual clutter to the setting. Much of the area in the vicinity of the culverts is vegetated, either with native shrubs and/or trees. As a result, the construction of access roads and staging areas would cause the removal of vegetation in the immediate area. As a result, these visual changes would cause a minor reduction of rural character and visual quality to the immediate project area.

Although potential visual changes would occur as a result of the project, the same type of elements proposed are seen elsewhere along the highway and are not by themselves inconsistent with the rural roadway character of the region or throughout the state. As a result, the proposed drainage structures, paved surfaces, Transportation Management System elements, and other

roadside elements would be subordinate to the overall experience of traveling along the highway. [The following text has been added since the draft environmental document was circulated.] Lighting rehabilitation would include the removal of several existing lights and the replacement of existing lighting in kind, therefore no increase in existing lighting is proposed.

During and following construction, the most noticeable aspect of the project would likely be the potential staging areas, and a reduction in trees and native vegetation associated with the drainage construction access. Although some of these actions may be considered temporary, any associated tree and vegetation removal and/or severe pruning may be noticed after construction, resulting in a loss of visual quality. Although impacts are less than significant, the minimization measures listed below would be implemented to further reduce potential visual impacts.

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

With implementation of the following minimization measures, the project would be consistent with the aesthetic and visual resource protection goals along State Route 1, and potential visual impacts would be reduced:

**AES-1:** Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques that save the most existing vegetation possible should be used.

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

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

**AES-4:** Paving beyond the gore shall include aesthetic treatment to be determined and approved by District 5 Landscape Architecture.

**AES-5:** Metal roadside elements such as guardrail, transitions, end treatments, and cable safety railing should be stained or darkened to be visually compatible with selected rural settings, as determined and approved by District 5 Landscape Architecture.

**AES-6:** Transportation Management System elements aesthetic treatment, such as painting, to be determined and approved by District 5 Landscape Architecture.

**AES-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

Land uses within the areas of potential impact for the project are designated as mostly urban and built-up land within Santa Cruz, Capitola, and Aptos. North of Santa Cruz, the land use is more rural, and the project locations have areas of potential impact adjacent to farmland designated as an Agricultural Resource Area by Santa Cruz County. However, access would be temporary for construction and would not prevent the continuation of existing farmland activities in the area. The project would not require any acquisition of property, and no farmland (either directly or indirectly) would be converted to nonagricultural use. No forest land or timberland is identified in the project vicinity that would be converted to non-forest use. Considering this information, 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?   | <b>No Impact</b>  |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <b>No Impact</b>  |
| 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))? | <b>No Impact</b>  |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?   | <b>No Impact</b>  |
| 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?  | <b>No Impact</b>  |

### 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 Quality, Greenhouse Gas, and Noise Technical Memorandum dated September 2021, the following significance determinations have been made:

| <b>Question—Would the project:</b>  | <b>CEQA Significance Determinations for Air Quality</b> |
|---|---|
| a) Conflict with or obstruct implementation of the applicable air quality plan?   | <b>No Impact</b>  |
| 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? | <b>Less Than Significant Impact</b>                     |
| c) Expose sensitive receptors to substantial pollutant concentrations?  | <b>Less Than Significant Impact</b>                     |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?   | <b>No Impact</b>  |

#### ***Affected Environment***

The project is in the North Central Coast Air Basin, which includes the counties of Monterey, San Benito, and Santa Cruz. Air quality in the basin is regulated by the Monterey Bay Air Resources District. The basin is in attainment for all National Ambient Air Quality Standards and non-attainment transitional for California Ambient Air Quality Standards for ozone. The basin is in non-attainment for airborne particulate matter less than 10 microns in diameter.

#### ***Environmental Consequences***

The project will not increase the capacity of the highway; therefore, there will be no change in long-term air quality as a result of the project.

Short-term temporary increases in air emissions and fugitive dust are expected during construction activities. It is expected that there will be minor earthwork, such as excavation, soil transport, and fill at the individual locations for culvert replacement and/or repair, and installation of census station and lighting infrastructure within the project limits. Residences, schools, and health care facilities in the vicinity of the project areas could be considered sensitive receptors to increased emissions and dust generated

during project construction. These increases would be minimized through implementation of standard construction practices and procedures for dust and emission minimization, as provided in Section 1.5, Standard Measures and Best Management Practices. It is expected that project emissions from construction vehicles and equipment and particulate matter (dust) would be well within the Monterey Bay Air Resources District’s standards. Project construction activities are not expected to generate a substantial odor.

Construction emissions were calculated for the project using the Caltrans Construction Emissions Tool with settings for a stormwater and drainage project of a 250-day construction period. Based on preliminary design information, the project construction activities are estimated to generate an average of 337 tons per year of carbon dioxide or 384 tons of carbon dioxide equivalent during the construction period.

The project would incorporate appropriate standard engineering design and Best Management Practices for stormwater protection and control during construction activities. In accordance with Caltrans’ 2018 Standard Specifications, the contractor will be responsible for compliance with all local air pollution control rules, regulations, ordinances, and statutes for work conducted under the construction contract. These requirements include those provided in Government Code Section 11017 (Public Contract Code Section 10231). In addition, the contractor will be required to prepare a Water Pollution Control Plan, which includes measures to minimize dust generation from grading, stockpiling, excavating, and other anticipated construction activities.

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

No additional measures are proposed.

**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 and Atmospheric Administration Fisheries? | <b>Less Than Significant Impact With Mitigation Incorporated</b> |

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

**Affected Environment**

Within the project limits, the existing roadway is a 4- to 6-lane freeway between the unincorporated community of Aptos and the City of Santa Cruz. It then transitions to a 4-lane conventional highway within the City of Santa Cruz, with 34 at-grade intersections. Within the City of Santa Cruz, pedestrian facilities begin from the intersection of River Street and State Route 1 and continue to the intersection of Swift Street and State Route 1. The project lies within the Coastal Zone from the beginning of the project limits in Aptos at post mile 8.24 through 13.2 and then enters the Coastal Zone again from post mile 19.36 at Swift Street through the end of the project limits at post mile 25.93 just south of Davenport.

To determine potential biological impacts of the project, a desktop review and field surveys were conducted within the Biological Study Area. The Biological Study Area is the area studied for biological resources and includes the area that may be directly, indirectly, temporarily, or permanently impacted by

construction and construction-related activities. Because the project has multiple locations spanning about 18 miles, the Biological Study Area is composed of multiple separate polygons around the various project locations.

The Biological Study Area is situated along the coastal plain of Santa Cruz County. Elevations within the survey area range from 30 to 100 feet above sea level. The surrounding area is variable along the length of the project, with mostly rural agricultural lands in areas to the northwest of the City of Santa Cruz and mostly urban lands from the City of Santa Cruz to the southern end of the project in Aptos.

Scattered areas of natural communities are present with the Biological Study Area, including willow riparian forest, coast live oak woodland, mixed conifer woodland, and eucalyptus woodland in addition to developed/landscaped and ruderal/disturbed vegetation. Residential and commercial buildings and associated landscaping within or immediately adjacent to the Biological Study Area occur within much of the project limits along State Route 1. The Biological Study Area includes portions of streams, wetlands, and drainages that eventually flow into the Pacific Ocean. No tidally influenced or brackish (typically where freshwater and seawater mix) regions are present.

Queries and official species lists were used to develop a list of special-status species and sensitive natural communities that have the potential to occur within the Biological Study Area. Sensitive species and habitats with potential to be present in the project impact area were further researched and prioritized for identification during field surveys.

Field surveys were conducted between April 2020 and April 2021. Floristic surveys were conducted within a range of months when target special-status species were flowering and identifiable following the guidelines of the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife. General reconnaissance-level wildlife surveys coincided with the botanical, wildlife species, and habitat surveys and were documented.

#### *Jurisdictional Wetlands, Other Waters, and Riparian Habitat*

Jurisdictional wetlands, other waters, and riparian habitat are regulated by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and California Coastal Commission. Wetlands function to improve water quality, detain stormwater runoff, recharge groundwater, and provide wildlife habitat. Wetlands are typically defined with a three-parameter approach, meaning the vegetation, soil, and hydrology parameters must all be met to be defined as a wetland. Riparian habitat along streams provides wildlife habitat, insects for food for aquatic species, and shade and cover for aquatic species, which helps regulate stream temperature.

Permanent impacts to jurisdictional features would occur from installation of rock slope protection at the outlet of the culverts. Temporary impacts to jurisdictional features would occur due to temporary access, staging areas, repair or replacement of culverts, and temporary stream diversion/dewatering, if needed.

Jurisdictional areas were determined to be present within the Biological Study Area at the following project locations: post mile 12.08 (stream), post mile 17.18 (stream), post mile 17.62 (riparian and stream), post mile 21.52 (stream and coastal wetland), post mile 21.78 (stream), post mile 23.45 (stream), post mile 24.16 (stream), post mile 24.90 (riparian, stream, and wetland), post mile 25.16 (riparian and stream), and post mile 25.73 (stream).

#### *Designated Critical Habitat*

The physical and biological features for marbled murrelet critical habitat include “(1) individual trees with potential nesting platforms, and (2) forested areas within 0.5 mile (0.8 kilometer) of individual trees with potential nesting platforms, and with a canopy height of at least one-half the site-potential tree height. This includes all such forest, regardless of contiguity.” Although two project locations occur within federally designated critical habitat for the marbled murrelet (culverts at post miles 21.52 and 23.45), the habitat within these locations was determined to not support physical and biological features for the marbled murrelet and were not studied further.

The Biological Study Area overlaps federally designated critical habitat for the California red-legged frog at the following 9 culvert locations: post miles 20.41, 21.52, 21.78, 23.45, 24.16, 24.90, 25.16, 25.73, and 25.93. The physical and biological features that were assessed to occur and determined to be supported within the Biological Study Area for the California red-legged frog are as follows: California red-legged frog PBF 3 and PBF 4—upland and dispersal habitat. Upland habitat includes areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to 1 mile. Upland habitat provides shelter, forage, and predator avoidance. Dispersal habitat is considered accessible upland or riparian habitat within and between occupied or previously occupied sites located within 1 mile of each other and that support movement between sites.

California red-legged frogs were not observed during general wildlife surveys; however, these locations have the potential to support upland and dispersal habitat and some suitable aquatic breeding. Therefore, the presence of the species is inferred at these locations.

The Biological Study Area does not overlap with federally designated critical habitat for any plant taxa.

### *Special-Status Plant Species*

Although potential habitat occurs within the Biological Study Area for several special-status plant taxa, botanical surveys were conducted in April 2020 through April 2021 and none of these taxa were found and none are anticipated to occur. It was determined that there will be no effect on any federally or state listed plants or their critical habitat.

### *Invasive Plant Species*

Forty-seven invasive plant species occur within the Biological Study Area. Seven of these species are rated with a “high” invasiveness rating, 17 are rated as “moderate,” and 23 are rated as “limited.” These species are scattered throughout the Biological Study Area and are most common in ruderal/disturbed areas along the edges of State Route 1. Construction-related ground disturbance could spread or introduce invasive species within the Biological Study Area.

### *Special-Status Animal Species*

Several special-status animal species have the potential to occur within the Biological Study Area, as noted in Table 2.1, along with the listing status and the presence of and/or recommendations for the species within the Biological Study Area.

**Table 2.1 Special-Status Animal Species Potentially Present in the Biological Study Area**

| Scientific Name   | Common Name                        | Listing Status   | Presence and/or Recommendations   | Determination   |
|---|------------------------------------|--|---|---|
| <b>Amphibians</b><br><i>Rana draytonii</i>                | California red-legged frog         | Federally Threatened, Designated Critical Habitat, California Species of Special Concern | <ul style="list-style-type: none"> <li>• Low-quality aquatic breeding and upland habitat occurs within the Biological Study Area.</li> <li>• Not observed during surveys.</li> <li>• Several California Natural Diversity Database records within and adjacent to the Biological Study Area.</li> </ul>   | Federal Endangered Species Act Section 7 Effects Determination: May affect, and is likely to adversely affect, California red-legged frog; May affect, and is likely to adversely affect, California red-legged frog federally designated critical habitat. |
| <b>Reptiles</b><br><i>Anniella pulchra</i>                | northern California legless lizard | California Species of Special Concern  | <ul style="list-style-type: none"> <li>• Suitable habitat present.</li> <li>• No California Natural Diversity Database occurrences within or adjacent to the Biological Study Area locations.</li> <li>• No further studies recommended.</li> <li>• <b>Avoidance and minimization measures recommended.</b></li> </ul>  | Not Applicable  |
| <b>Reptiles</b><br><i>Thamnophis sirtalis tetrataenia</i> | San Francisco garter snake         | Federally Endangered, State Endangered, State Fully Protected                            | <ul style="list-style-type: none"> <li>• Suitable habitat present.</li> <li>• The project limits do not occur within the range; the northern limit (post mile 26.0) of the project is south of Waddell Creek. No California Natural Diversity Database occurrences within or adjacent to the Biological Study Area locations.</li> <li>• No further studies recommended.</li> </ul> | Federal Endangered Species Act Section 7 Effects Determination: No effect to the species.<br><br>California Endangered Species Act determination: No take.  |
| <b>Reptiles</b><br><i>Emys marmorata</i>                  | western pond turtle                | California Species of Special Concern  | <ul style="list-style-type: none"> <li>• Suitable habitat present.</li> <li>• No California Natural Diversity Database occurrences within or adjacent to the Biological Study Area locations.</li> <li>• No further studies recommended.</li> <li>• <b>Avoidance and minimization measures recommended.</b></li> </ul>  | Not Applicable  |

| Scientific Name                           | Common Name         | Listing Status  | Presence and/or Recommendations  | Determination   |
|---|---------------------|---|--|---|
| <b>Birds</b><br><i>Accipiter cooperii</i> | Cooper's hawk       | Protected by Federal Migratory Bird Treaty Act, California Department of Fish and Wildlife Watch List Species         | <ul style="list-style-type: none"> <li>• Marginally suitable habitat exists within the Biological Study Area.</li> <li>• No California Natural Diversity Database occurrences exist within the Biological Study Area.</li> <li>• No species observed during surveys.</li> <li>• <b>Avoidance and minimization measures recommended for all protected species under the Migratory Bird Treaty Act.</b></li> </ul> | Not Applicable  |
| <b>Birds</b><br><i>Elanus leucurus</i>    | white-tailed kite   | Protected by Federal Migratory Bird Treaty Act, State Fully Protected   | <ul style="list-style-type: none"> <li>• Suitable nesting habitat exists within the Biological Study Area.</li> <li>• Species not observed during surveys.</li> <li>• No California Natural Diversity Database occurrences exist within the Biological Study Area.</li> <li>• No nesting bird species observed during surveys.</li> <li>• No further studies recommended.</li> </ul>                             | California Endangered Species Act determination: No take. |
| <b>Birds</b><br>Class Aves                | other nesting birds | Protected by Federal Migratory Bird Treaty Act, Protected by California Department of Fish and Game Code Section 3503 | <ul style="list-style-type: none"> <li>• Suitable nesting habitat exists within the Biological Study Area.</li> <li>• No nesting bird species observed during surveys.</li> <li>• <b>Avoidance and minimization measures recommended.</b></li> </ul>   | Not Applicable  |

| Scientific Name  | Common Name                                   | Listing Status  | Presence and/or Recommendations  | Determination   |
|--|---|---|--|---|
| <b>Invertebrates</b><br><i>Danaus plexippus pop. 1</i> | monarch - California overwintering population | Candidate for Federal Listing, Included in California Natural Diversity Database Special Animals List | <ul style="list-style-type: none"> <li>• No identified overwintering roosting sites occur within the Biological Study Area locations.</li> <li>• Several California Natural Diversity Database occurrences exist within or near the Biological Study Area locations: near Bright State Beach (Occurrence 61), and in 1984 several occurrences near Long Marine Lab, but noted as not likely to be an overwintering site (Occurrences 102, 421, 422, 423).</li> <li>• Species not observed during surveys.</li> <li>• No additional studies recommended.</li> </ul> | Federal Endangered Species Act Section 7 effects determination: No effect to species. |
| <b>Invertebrates</b><br><i>Bombus caliginosus</i>      | obscure bumble bee                            | Included in California Natural Diversity Database Special Animals List                                | <ul style="list-style-type: none"> <li>• Marginal suitable food plant habitat present.</li> <li>• Most recent California Natural Diversity Database record is from 1950 near the Biological Study Area.</li> <li>• Not observed during surveys.</li> <li>• No further studies recommended.</li> </ul>  | Not Applicable  |
| <b>Mammals</b><br><i>Lasiurus cinereus</i>             | hoary bat                                     | Included in California Natural Diversity Database Special Animals List                                | <ul style="list-style-type: none"> <li>• Marginally suitable habitat is present in woodland habitats.</li> <li>• No California Natural Diversity Database records in or near the Biological Study Area.</li> <li>• Not observed during general surveys.</li> <li>• <b>Avoidance and minimization measures recommended.</b></li> </ul>  | Not Applicable  |

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### ***Environmental Consequences***

Most of the Biological Study Area is dominated by ruderal (weedy) habitat that is subject to routine disturbance associated with highway maintenance and operations. Most project impacts would be limited to these ruderal roadside areas that are already highly disturbed. Permanent impacts are associated with addition of rock slope protection and flared end section at culvert outlets, new lighting and Transportation Management System elements and associated features. Replacement of existing features at the same location is not considered a permanent impact. Temporary impacts are associated with vegetation clearing, excavation, staging, and construction access.

Tree trimming or removal may be required for construction access to accommodate the proposed improvements. Tree trimming or removal is currently identified at post miles 14.00 and 24.90 where replacement culverts are proposed. [The following text has been added since the draft environmental document was circulated.] One eucalyptus tree will have a large branch, approximately 15 feet long, removed at post mile 14.00; two red alders with approximate diameter at breast height of 6 inches and 10 inches will be removed at post mile 24.90. The two removed trees will be replaced at a 10-to-1 replacement ratio. Environmentally Sensitive Area fencing will be placed around trees to be protected and shown in project plans. Implementation of these measures will ensure the impacts to native trees are less than significant.

The project will not affect any state listed species, and California Endangered Species Act coordination is not required.

There is no Essential Fish Habitat for federally managed species at the project location, and Essential Fish Habitat consultation with the National Marine Fisheries Service will not be required.

No impacts to wildlife connectivity are anticipated with this project. Measures will be implemented to avoid/minimize the spread of invasive species throughout the Biological Study Area. Environmentally Sensitive Area fencing would be installed throughout areas of the project to limit construction activities and protect natural communities of concern, individual trees, and sensitive species. Environmentally Sensitive Area fencing will be identified on the project plans. Prior to the start of construction activities, Environmentally Sensitive Areas will be delineated in the field and be approved by the Caltrans Environmental Division.

#### ***Jurisdictional Wetlands, Other Waters, and Riparian Habitat***

Impacts to Jurisdictional areas regulated by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and California Coastal Commission occur within the Biological Study Area and are summarized in Table 2.2. The estimated impacts to jurisdictional areas were calculated by overlaying the project area of potential impact with the preliminary jurisdictional determination. Permanent impacts to jurisdictional

features would occur from installation of rock slope protection at the outlet of the culverts. Temporary impacts to jurisdictional features would occur due to temporary access, staging areas, repair or replacement of culverts, and temporary stream diversion/dewatering, if needed.

Approximately 117.6 square feet (0.003 acre) of waters of the U.S. and streambed may be permanently impacted, and 291.8 square feet (0.007 acre) may be temporarily impacted. A total of 57.4 square feet (less than 0.001 acre) of jurisdictional riparian habitat may be permanently impacted, and 91.1 square feet (0.003 acre) may be temporarily impacted. Approximately 35.3 square feet (0.001 acre) of jurisdictional wetlands may be temporarily impacted; no permanent impacts to wetlands are anticipated.

**Table 2.2. Estimated Impacts to All Jurisdictional Areas**

| Natural Community/<br>Jurisdictional Area | Permanent Impacts (Acre) | Permanent Impacts (Square Feet) | Temporary Impacts (Acre) | Temporary Impacts (Square Feet) |
|---|--------------------------|---------------------------------|--------------------------|---------------------------------|
| Stream/Other Waters                       | 0.003                    | 117.6                           | 0.007                    | 291.8                           |
| Riparian                                  | Less than 0.001          | 57.4                            | 0.003                    | 91.1                            |
| Wetlands                                  | 0                        | 0                               | Less than 0.001          | 35.3                            |

### *Special-Status Animal Species*

#### California Red-legged Frog and Designated Critical Habitat

Work that involves replacement or repair of culverts or other drainage improvements within California red-legged frog critical habitat has the potential to impact the California red-legged frog and its critical habitat, especially those areas that are associated with other waters/streams and wetlands.

Project impacts could occur at the following nine locations where drainage work is to occur where there is potential habitat for California red-legged frog: post miles 20.41, 21.52, 21.78, 23.45, 24.16, 24.90, 25.16, 25.73, and 25.93. The potential need to capture and relocate California red-legged frogs within these locations would subject these animals to stresses that could result in adverse effects. Injury or death could occur via accidental crushing by worker foot-traffic or construction equipment. Approximately 0.014 acre (588.5 square feet) of permanent impacts and 0.318 (13,848.4 square feet) of temporary impacts to California red-legged frog critical habitat could occur at these nine locations.

The Federal Endangered Species Act Section 7 effects determination is that the project may affect, and is likely to adversely affect, the California red-legged frog. The basis for this determination is that California red-legged frog presence has been inferred within the Biological Study Area, and there would be potential for take of the species during construction.

The Section 7 effects determination is that the project may affect, and is likely to adversely affect, federally designated critical habitat for the California red-legged frog. The basis for this determination is that the project occurs within critical habitat for drainage work to occur at nine culverts: post miles 20.41, 21.52, 21.78, 23.45, 24.16, 24.90, 25.16, 25.73, and 25.93.

[The following text has been added since the draft environmental document was circulated.] On October 3, 2022, the U.S. Fish and Wildlife Service provided Caltrans with a letter of concurrence (see Appendix D, Biological Opinion) 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). The Programmatic Biological Opinion measures designed to avoid or minimize impacts to California red-legged frogs are included as avoidance and minimization measures for this project.

*Cooper's Hawk, White-tailed Kite, and Other Nesting Birds*

No special-status bird species were found during surveys. There are no records of Cooper's hawk or white-tailed kite nesting in the Biological Study Area, and the project is not expected to impact these species. Common birds seen within the Biological Study Area include the following species: red-tailed hawk, raven, red-winged blackbird, house finch, turkey vulture, barn swallow, brewer's blackbird, and common crow. Potential nesting habitat occurs throughout shrubs and trees within the Biological Study Area.

Impacts to active nests belonging to migratory bird species could occur throughout the Biological Study Area from construction activities where suitable nesting substrate is present. Indirect impacts could also result from noise and disturbance associated with construction during the nesting season, which could alter nesting behaviors. Direct impacts to nesting birds could result if removal of vegetation occurs during the nesting season. These direct effects would result in the injury or death of nesting birds or harassment that could alter nesting behaviors. Implementation of pre-construction nesting surveys and buffer exclusion zones (if necessary) will reduce the potential for adverse effects to nesting birds.

*Northern California Legless Lizard and Western Pond Turtle*

The project has the potential to impact the northern legless lizard and western pond turtle if found burrowing or nesting in the area of potential impact. However, the chances are low that any of these special-status reptile species would occur within the area of potential impact 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.

### Monarch Butterfly

[The following text has been updated since the draft environmental document was circulated.] Monarch butterflies occur primarily as migrating individuals in the vicinity of the Biological Study Area. Although six overwintering sites have been identified in the general project vicinity, no trees, host plants, or habitat will be removed at project locations that occur within one-half mile of overwintering sites. The project is expected to have no effect on monarch butterflies, migrating individuals, or overwintering roost sites.

### Hoary Bat

No bat roosts were detected during surveys, and no impacts to roosting bats are anticipated. However, if bats are found roosting in trees that are to be trimmed during construction, direct impacts could include injury or death of bats. Indirect impacts could also result from noise and disturbance associated with construction, which could alter roosting behaviors.

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

The measures listed below would reduce potential impacts to biological resources to below significance. Mitigation measures are labeled as such, and the remaining measures are avoidance and/or minimization measures. The measures have been organized by the primary resource or species they are designed to protect.

#### *Jurisdictional Wetlands, Other Waters, and Riparian Habitat*

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

**BIO-1:** Prior to construction, Caltrans shall obtain a Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife. All permit terms and conditions will be incorporated into construction plans and implemented.

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

**BIO-3:** Construction activities in jurisdictional waters and temporary stream diversion, if needed, shall be timed to occur between June 1 and October 31 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at a seasonal minimum. Deviations

from this work window will be made only with permission from the relevant regulatory agencies.

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

**BIO-5:** During construction, erosion control measures shall be implemented. Fiber rolls and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.

**BIO-6:** During construction, the staging areas shall conform to best management practices. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor daily to ensure proper operation and avoid potential leaks or spills.

**BIO-7:** Stream contours shall be restored as close as possible to their original condition.

**BIO-8:** Temporary impacts to jurisdictional waters shall be restored at a 1-to-1 ratio (acreage). Compensatory mitigation shall be provided at a 3-to-1 ratio (acreage) for permanent impacts to jurisdictional waters. Replacement plantings shall include appropriate native tree and understory species. To ensure replacement planting success, monitoring and an appropriate plant establishment period will be required, which will include annual inspections, weeding, and replacement of unsuccessful plants, if needed. It is likely that a 1-year plant establishment period will be required. Replacement plantings shall be detailed in Caltrans' Landscape Architecture Landscape Planting Plan and the final Mitigation and Monitoring Plan during the Plans, Specifications, and Estimates phase and finalized through the permit review process with regulatory agencies. The Mitigation and Monitoring Plan shall be developed in coordination with a biologist, include mitigation commitments, developed planting specifications and grading plans to ensure survival of planted vegetation and re-establishment of functions and values, and be consistent with standards and mitigation commitments from the jurisdictional agencies.

**BIO-9:** [The following text has been modified since the draft environmental document was circulated.] Native trees with a diameter at breast height of six inches or greater shall be replanted at a minimum 10-to-1 replacement ratio within or adjacent to existing woodlands or riparian areas within the Caltrans right-of-way within the project area as part of the project's landscaping plans.

### *Invasive Species*

The following avoidance and minimization measures are recommended:

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

**BIO-11:** Only clean fill shall be imported. When practicable, invasive exotic plants in the project site will be removed and properly disposed. Any plant species rated as “high” on the Cal-IPC Invasive Plant Inventory that is removed from the construction site will be taken to a landfill to prevent the spread of invasive species. 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.

**BIO-12:** Construction equipment shall be inspected to verify it is clean and weed-free by Caltrans before entering the construction site. If necessary, wash stations onsite will be established for construction equipment under the guidance of Caltrans to avoid/minimize the spread of invasive plants and/or seed within the construction area. If wash stations onsite are infeasible due to the site’s space constraints, construction equipment will be cleaned offsite and then driven only on paved roads to the site.

#### *California Red-Legged Frog*

The following mitigation measures will be implemented to avoid and minimize potential adverse impacts to the California red-legged frog from the project (complies with the Caltrans Programmatic Biological Opinion with U.S. Fish and Wildlife Service):

**BIO-13:** Caltrans shall coordinate with the U.S. Fish and Wildlife Service to obtain Federal Endangered Species Act incidental take coverage under the Programmatic Biological Opinion with the U.S. Fish and Wildlife Service and comply with the following measures from the Programmatic Biological Opinion:

- Only U.S. Fish and Wildlife Service-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
- Ground disturbance shall not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work, unless the individual(s) has/have been approved previously and the U.S. Fish and Wildlife Service has not revoked that approval.
- A U.S. Fish and Wildlife Service-approved biologist shall survey the project area at locations with suitable California red-legged frog habitat no more than 48 hours before the onset of work activities. If found, the U.S. Fish and Wildlife Service-approved biologist shall 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 shall be in the same drainage to the extent practicable.

- Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall 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.
- A U.S. Fish and Wildlife Service-approved biologist shall be present at the project locations with suitable California red-legged frog habitat until all California red-legged frogs have been removed, workers have been instructed, and initial disturbance of habitat has been completed. If work is 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, the biologist shall notify the Resident Engineer immediately. When work is stopped, the U.S. Fish and Wildlife Service shall be notified as soon as possible.
- During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of at the end of each work week. Following construction, all trash and debris shall be removed from work areas.
- All refueling, maintenance and staging of equipment and vehicles shall occur at least 100 feet from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies.
- Habitat contours shall be returned to a natural configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project at locations with suitable California red-legged frog habitat 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.
- The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. Environmentally Sensitive Areas shall be established 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.

- Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May).
- 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 a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water shall 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 shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed shall be minimized to the maximum extent possible; any imported material shall be removed from the streambed upon completion of the project.
- Unless approved by the U.S. Fish and Wildlife Service, water shall not be impounded in a manner that may attract California red-legged frogs.
- Project sites shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable.
- Caltrans shall not use herbicides as the primary method to control invasive, exotic plants.
- Upon completion of the project, Caltrans shall 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.

*Cooper's Hawk, White-tailed Kite, and Other Nesting Migratory Birds*

The following avoidance and minimization will be implemented to minimize impacts to nesting migratory birds:

**BIO-14:** If feasible, removal of trees shall be scheduled to occur in the fall and winter (between September 2 and January 31), outside of the typical nesting season. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 1 to September 1), a nesting bird survey shall be conducted by a qualified

Caltrans biologist no more than 10 calendar days prior to construction. If an active nest is found, Caltrans shall implement an appropriate buffer based on the habits and needs of the species. The buffer area shall be implemented until a qualified biologist has determined that juveniles have fledged or nesting activity has otherwise ceased.

**BIO-15:** During construction, active bird nests must not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time.

*Northern Legless Lizard and Western Pond Turtle*

Avoidance and minimization measures for the California red-legged frog will also minimize impacts to the northern legless lizard and western pond turtle. In addition:

**BIO-16:** If northern legless lizards or western pond turtles are detected in the project limits during construction, a qualified biologist or trained designee will move them out of harm's way.

*Hoary Bat and Other Roosting Bats*

The following avoidance and minimization measures are recommended for roosting bats:

**BIO-17:** Tree removal shall occur from September 1 to February 14, outside of the typical bat maternity roosting season, if possible, to avoid potential impacts to roosting bats. If tree removal or other construction activities are proposed to occur during the bat maternity roosting season (February 15 to August 31), a bat roost survey shall be conducted by a qualified biologist within 14 days prior to construction. The biologist conducting the pre-construction surveys shall identify the nature of the bat utilization (i.e., no roosting, night roost, day roost, maternity roost) and determine if passive bat exclusion will be necessary and feasible. If an active day roost is found, a qualified Caltrans biologist shall determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that roosting activity has ceased or exclusionary methods have successfully evicted roosting bats. Active bat maternity roosts shall not be disturbed.

**BIO-18:** Readily visible exclusion zones shall be established in areas where roosts must be avoided using Environmentally Sensitive Area fencing. The size/radius of the exclusion zone shall be determined by a qualified Caltrans biologist.

### 2.1.5 Coastal Zone

Several elements of the project lie within the Coastal Zone, and therefore the project has the potential to affect resources protected by the Coastal Zone Management Act of 1972, the main federal law enacted to preserve and protect coastal resources. The Coastal Zone Management Act sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan can review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed the Coastal Zone Management Plan for the state and has enacted the California Coastal Act of 1976 to protect the state coastline. The policies established by the California Coastal Act are similar to those for the Coastal Zone Management Act: they include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of Environmentally Sensitive Areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal Coastal Zone Management Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs. The proposed project is subject to the County of Santa Cruz Local Coastal Program, the City of Santa Cruz Local Coastal Program, and the City of Capitola Local Coastal Program. Local coastal programs contain the ground rules for the development and protection of coastal resources in their jurisdiction consistent with the California Coastal Act goals.

A Federal Consistency Certification would be needed as well. The Federal Consistency Certification process would be initiated after the final environmental document and would be completed upon approval of the required coastal development permits.

#### ***Affected Environment***

The project contains elements that fall within the Coastal Zone boundary and are under the jurisdiction of the County of Santa Cruz, the City of Santa Cruz, and the City of Capitola Local Coastal Programs. Figure B-1 in Appendix B shows the jurisdictional boundary of each agency within the Coastal Zone and the project locations. The project locations from post miles 8.2 to 11.8 and post miles 20.6 to 26.2 are within the jurisdiction of the County of Santa Cruz, post miles 20.1 to 20.6 are within the jurisdiction of the City of Santa Cruz, and post miles 11.8 to 12.65 are within the jurisdiction of the City of Capitola.

The County of Santa Cruz Local Coastal Program was adopted with the County's General Plan in May 1994 and certified by the California Coastal

Commission in December 1994. The City of Santa Cruz Local Coastal Program was adopted with the City's General Plan in October 1992 and has been amended several times since. The City of Capitola Local Coastal Program was certified by the California Coastal Commission in June 1981 and updated in October 2001 and January 2005.

An Environmentally Sensitive Habitat Area (also known by the acronym ESHA) is defined in the California Coastal Act Section 30107.5 as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.”

### ***Environmental Consequences***

An analysis of the consistency of the project with policies of Chapter 3 of the California Coastal Act, the County of Santa Cruz Local Coastal Program, the City of Santa Cruz Local Coastal Program, and the City of Capitola Local Coastal Program that pertain to this project is summarized in Table B-1 in Appendix B.

Jurisdictional features that are within the Coastal Zone are considered Environmentally Sensitive Habitat Areas. All impacted jurisdictional features are within the Coastal Zone in the County of Santa Cruz at eight project locations, including these post miles: 12.08 (stream), 21.52 (stream and coastal wetland), 21.78 (stream), 23.45 (stream), 24.16 (stream), 24.90 (riparian, stream, and wetland), 25.16 (riparian and stream), and 25.73 (stream). The project will have permanent and temporary impacts on designated Environmentally Sensitive Habitat Areas.

Wetlands in the Coastal Zone are required to meet only one parameter of the typical three-parameter approach—either hydrology, soils, or vegetation—to be considered a coastal wetland. One location at post mile 21.52 meets this definition and is therefore designated as a coastal wetland, and impacts are listed separately in Table 2.3. Approximately 34.1 square feet of permanent impacts and approximately 1.1 square feet of temporary impacts are anticipated at this coastal wetland Environmentally Sensitive Habitat Area.

Table 2.3 summarizes the impacts to Environmentally Sensitive Habitat Areas within the Coastal Zone.

**Table 2.3. Estimated Impacts to Coastal Environmentally Sensitive Habitat Areas**

| Natural Community/Jurisdictional Area | Permanent Impacts (Acre) | Permanent Impacts (Square Feet) | Temporary Impacts (Acre) | Temporary Impacts (Square Feet) |
|---------------------------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
| Stream/Other Waters                   | Less than 0.001          | 15.9                            | 0.006                    | 284.7                           |
| Riparian                              | Less than 0.001          | 57.4                            | 0.003                    | 91.1                            |
| Wetland                               | 0                        | 0                               | Less than 0.001          | 35.3                            |
| Coastal wetland                       | Less than 0.001          | 34.1                            | Less than 0.001          | 1.1                             |

The Santa Cruz County Code Sensitive Habitat Protection Ordinance (Chapter 16.32) includes various approval conditions that would be enacted for permit approval; Section 16.32.100 provides an exception to the standards in Section 16.32.090. More specifically, a finding that the proposed safety and drainage improvements are necessary to protect the public welfare, health, and safety can be made and an exception can be granted upon approval of the environmental coordinator following a biotic review pursuant to Santa Cruz County Code 16.32.070. A biotic review is a brief review of onsite biotic (living) resources conducted by a County-contracted biologist.

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

Compensatory mitigation will be implemented to prevent a net loss of acreages, functions, and values of impacted Environmentally Sensitive Habitat Areas. Impacts to Environmentally Sensitive Habitat Areas will be restored at a 1-to-1 ratio for temporary impacts and a 3-to-1 ratio for permanent impacts. Native trees shall be replanted at a minimum 10-to-1 ratio to restore woodlands and riparian areas. Refer to Mitigation Measures BIO-8 and BIO-9. With the implementation of these mitigation measures as well as avoidance and minimization measures prescribed in this document, the project is not expected to cause significant impacts on Environmentally Sensitive Habitat Areas.

### **2.1.6 Cultural Resources**

Considering the information in the Cultural Resources Screened Undertaking Memorandum dated December 2021, 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? | <b>No Impact</b>  |

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

### 2.1.7 Energy

Implementation of the project would result in the short-term use of fossil fuels, electricity, and natural gas by construction vehicles and equipment to replace and repair infrastructure such as drainage culverts, gore paving, lighting, and Transportation Management System elements. The use of these resources would be temporary and would not result in a significant demand on resources.

No direct or indirect effects related to wasteful, inefficient, or unnecessary energy consumption will occur. The project will not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. Considering the information included in the Climate Change Technical Memorandum dated March 2022 and the Air Quality, Greenhouse Gas, and Noise Technical Memo dated September 2021, 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? | <b>No Impact</b>                            |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?  | <b>No Impact</b>                            |

### 2.1.8 Geology and Soils

Considering the information in the Geologic and Seismic Analysis dated December 2021 and the Paleontological Identification Report dated May 2022, 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:<br><br>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. | <b>No Impact</b>                                       |
| ii) Strong seismic ground shaking?   | <b>No Impact</b>                                       |
| iii) Seismic-related ground failure, including liquefaction?   | <b>No Impact</b>                                       |
| iv) Landslides?  | <b>No Impact</b>                                       |
| b) Result in substantial soil erosion or the loss of topsoil?  | <b>No Impact</b>                                       |
| 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?   | <b>No Impact</b>                                       |
| 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?   | <b>No Impact</b>                                       |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?   | <b>No Impact</b>                                       |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  | <b>No Impact</b>                                       |

### 2.1.9 Greenhouse Gas Emissions

Considering the information in the Air Quality, Greenhouse Gas, and Noise Technical Memorandum dated September 2021 and the Climate Change Technical Memorandum 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?      | <b>Less Than Significant Impact</b>                           |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <b>Less Than Significant Impact</b>                           |

***Affected Environment***

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

Within the project limits, the existing facility is a 4- to 6-lane freeway between post mile 8.2 near Soquel Drive and post mile 17.56 near River Street, then the roadway transitions to a 4-lane conventional highway between post miles 17.56 and 26.0 near Laguna Road with 34 at-grade intersections. Within the City of Santa Cruz, from post miles 17.4 to 20.4, pedestrian facilities begin from the intersection of River Street and State Route 1 and continue to the intersection of Swift Street and State Route 1.

The project lies within the Coastal Zone from the beginning of the project limits at post mile 8.2 near Soquel Drive through post mile 13.2 near Chittenden Lane and then enters the Coastal Zone again from post mile 19.3 at Western Drive through the end of the project limits at post mile 25.93 near Laguna Road.

The Association of Monterey Bay Area Governments Metropolitan Transportation Plan guides transportation development in the area. The Association of Monterey Bay Area Governments includes Monterey, San Benito, and Santa Cruz counties as well as many local cities in the area. The 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy indicates the existing transportation system in the area is composed of roadways, transit, rail, bicycle, and pedestrian networks, airports and aviation, goods movement, and management strategies. The 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy also addresses greenhouse gases in its jurisdiction and sets goals for reduction.

## ***Environmental Consequences***

### *Operational Emissions*

The purpose of the project is to restore damaged culverts, improve maintenance worker safety and roadside maintainability, replace lighting elements, and install traffic count stations. The project will not increase the capacity of State Route 1. This type of project is not expected to increase operational greenhouse gas emissions. Because the project would not increase the number of travel lanes on State Route 1, no increase in vehicle miles traveled would occur as a result of project implementation. While some greenhouse gas emissions during the construction period would be unavoidable, no increase in operational greenhouse gas emissions is expected.

### *Construction Emissions*

Construction greenhouse gas emissions would result from construction processes such as operation of construction equipment, worker travel, and material transport and processing. 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 transportation management during construction phases.

In addition, with innovations such as longer pavement lives, improved transportation management plans, and changes in materials, the greenhouse gas emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Construction greenhouse gas emissions were estimated using Caltrans' Construction Emissions Tool and default settings for a stormwater and drainage project. The estimated average carbon dioxide emissions total is 337 tons per year, with the construction phase approximately 250 working days. Also, the estimated average carbon dioxide equivalent emissions total is about 384 tons generated over the 250-day construction period. Carbon dioxide equivalent is calculated by combining estimates of carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons emissions. Note that these estimates are based on assumptions made during the environmental planning phase of the project and are considered "ballpark" amounts of energy usage. The project length was figured to be 1 mile as an engineering judgment after combining the lengths of proposed spot locations of work.

While the project would result in greenhouse gas emissions during construction, it is expected that the project will not result in any increase in operational greenhouse gas emissions. The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction greenhouse gas-reduction measures, the impact would be less than significant.

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

The following minimization measures will be implemented in addition to Caltrans Standard Specifications in the project to further reduce greenhouse gas emissions and potential climate change impacts from the project:

**GHG-1:** Preserve as much existing vegetation as possible.

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

**GHG-3:** The project will use appropriately sized equipment for project activities.

**GHG-4:** The project will maintain equipment in proper tune and working condition.

**GHG-5:** The project will limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

**2.1.10 Hazards and Hazardous Materials**

Considering the information in the Initial Site Assessment dated May 2022, 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?   | <b>Less Than Significant Impact</b>                                  |
| 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? | <b>No Impact</b>   |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?                                 | <b>Less Than Significant Impact</b>                                  |

| Question—Would the project:   | CEQA Significance Determinations for Hazards and Hazardous Materials |
|---|--|
| 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?  | <b>No Impact</b>   |
| 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? | <b>No Impact</b>   |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?   | <b>No Impact</b>   |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?   | <b>No Impact</b>   |

### ***Affected Environment***

An Initial Site Assessment was done to identify potential sources of hazardous materials, hazardous waste, or contamination within or near the project and provide recommendations for testing that may be needed to investigate and define hazardous waste or materials during the project design phase.

A review of environmental records and agency databases pursuant to Government Code 65962.5 was performed. Given the linear nature of the project and the location of project areas within developed parts of Santa Cruz County, the records search revealed dozens of closed and open cases listed in GeoTracker and EnviroStor. Several permitted underground storage tanks, gas stations, and other businesses commonly associated with hazardous waste generation were also identified. For cases where residual contamination occurs, impacted soil or groundwater did not extend beyond the site boundary and is not expected to be present within the area of potential effect where work will occur. Although several hazardous sites and businesses commonly associated with hazardous waste generation occur within the project corridor, there is a low potential for encountering contamination during construction.

### ***Routine Hazardous Waste***

Contaminants and waste streams that are frequently encountered or produced by Caltrans projects are referred to as routine hazardous waste.

Investigation of these routine wastes is typically conducted during the project design phase. Standard Special Provisions have been developed for the proper handling, treatment, and disposal if needed of routine hazardous materials and wastes encountered during highway construction activities to protect the health of workers, the public, and the environment.

The historic use of leaded gasoline in automobiles has led to soils along roadways throughout California containing elevated concentrations of lead. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016 Aerially Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control. This agreement outlines which soils can be safely reused within the project limits and which soils must be exported and disposed of as hazardous waste.

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

Highway guardrail support posts and signposts often consist of wood treated with chemical preservatives to prevent rot or damage from insects. Treated wood waste is considered a California hazardous waste.

### ***Environmental Consequences***

Routine hazardous materials and wastes that may be encountered during the project are discussed below.

- **Aerially deposited lead.** Previous soil sampling investigations within the project corridor documented elevated concentrations of lead. Based on this, a more extensive review of previous studies will be completed during the project design phase. A Preliminary Site Investigation including soil sampling and laboratory analysis for aerially deposited lead will be completed in areas of the project where no sampling has yet been completed or where supplemental sampling is deemed necessary. Appropriate specifications will be included in the construction contract based on soil sampling results and in accordance with the 2016 Aerially Deposited Lead Agreement. It is expected that Caltrans Standard Specifications 14-11.08 and 7-1.02K(6)(j)(iii) will be included in the construction contract.
- **Yellow thermoplastic or traffic stripe.** The existing yellow stripe within the project area is nonhazardous. Culverts that will be replaced via the cut and cover method may require removal of yellow traffic stripe. Caltrans Standard Specification 84-9.03B will be followed if the stripe removal is completed separately, or Caltrans Standard Specification 36-4 will be

followed if the stripe is removed as part of a cold-plane or grinding operation. A Lead Compliance Plan will be developed and implemented by the construction contractor to ensure proper removal, handling, and disposal of yellow traffic stripe.

- **Treated wood waste.** Treated wood waste may be generated if guardrail, barrier, or signs need to be removed or replaced. Treated wood waste would be disposed of appropriately, and the Standard Special Provision Section 14-11.14 would be included in the construction contract for proper management and disposal of treated wood waste.

Ten schools sit within a quarter-mile of the project limits: Aptos Junior High at 1001 Huntington Drive, Valencia Elementary at 250 Aptos School Road, Mar Vista Elementary at 6860 Soquel Drive, Delta Charter at 6500 Soquel Drive, Soquel Elementary at 2700 Porter Street, Harbor High at 300 La Fonda Avenue, Live Oak Elementary at 986 Bostwick Lane, Santa Cruz High at 415 Walnut Avenue, Bay View Elementary at 1231 Bay Street, and Pacific Collegiate Charter at 3004 Mission Street. The project would implement Caltrans Best Management Practices and other standard procedures during construction activities to properly store, handle and dispose of potentially hazardous materials as described above.

Routine hazardous waste issues may be encountered during project construction, but would be appropriately handled, treated, and disposed of as required with implementation of Caltrans Standard Specifications and Special Provisions. Adverse effects to human health and the environment would be less than significant.

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

The following minimization measure will be implemented in addition to Caltrans Standard Specifications to ensure appropriate characterization and management of aerially deposited lead-contaminated soils within the project area.

**HAZ-1:** A review of existing aerially deposited lead data and completion of a Preliminary Site Investigation that includes supplemental soil sampling for aerially deposited lead shall be completed during the project design phase once more detailed information about the limits of project earthwork are known. Identified aerially deposited lead-contaminated soils will be managed following Caltrans Standard Specifications 14-11.08 and 7-1.02K(6)(j)(iii) and in compliance with the 2016 Aerially Deposited Lead Agreement between Caltrans and the Department of Toxic Substances Control.

### 2.1.11 Hydrology and Water Quality

Considering the information in the Location Hydraulic Study dated January 2022 and the Water Quality Assessment Report dated January 2022, 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?   | <b>Less Than Significant Impact</b>                              |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?   | <b>No Impact</b>   |
| 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:<br><br>(i) result in substantial erosion or siltation onsite or offsite; | <b>No Impact</b>   |
| (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;  | <b>No Impact</b>   |
| (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   | <b>Less Than Significant Impact</b>                              |
| (iv) impede or redirect flood flows?  | <b>No Impact</b>   |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?   | <b>No Impact</b>   |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?   | <b>No Impact</b>   |

### **Affected Environment**

The project study area crosses through three sub-watersheds: Aptos-Soquel, San Lorenzo, and Davenport. The receiving water bodies for this project are Porter Gulch, Soquel Creek, Rodeo Gulch Creek, Arana Gulch, San Lorenzo River, Moore Creek, Wilder Creek, Sand Flat Gulch, Old Dairy Gulch, Majors Creek, and Laguna Creek. The project is divided into three Hydrologic Sub Areas within Santa Cruz Hydrologic Area and Big Basin Hydrologic Unit: Davenport (#304.11), San Lorenzo (#304.12), and Aptos-Soquel (#304.13). Six of the 11 receiving water bodies for the project area are listed on the Clean Water Act Section 303(d) List for impaired water bodies as described below. Many of the pollutants listed are a result of agricultural farming activities, raising domestic livestock, and urban runoff.

The Aptos-Soquel sub-watershed consists of mostly forested land uses in the upper watershed to more urbanized land uses in unincorporated areas of Soquel, Aptos, and Capitola in the lower watershed. Within the Aptos-Soquel sub-watershed, project locations from post miles 8.2 to 10.5 drain toward Aptos Creek and its primary tributary, Valencia Creek. Valencia Creek is on the 303(d) List for pathogens and sediment. The project location at post mile 12.1 drains into Tannery Gulch. The project locations from post miles 12.5 to 13.59 drain toward Soquel Creek. Soquel Creek is on the 303(d) List for pathogens. The project location at post mile 14.00 drains toward Rodeo Creek.

The San Lorenzo is the largest watershed lying completely within Santa Cruz County. Originating in the Santa Cruz Mountains, it flows southeast toward the Pacific Ocean. Much of the upper watershed is forested, while the lower watershed encompasses the urbanized City of Santa Cruz. Within the San Lorenzo sub-watershed, project locations at post miles 14.77 and 15.04 drain toward Arana Gulch. Project locations from post miles 16.08 to 18.71 drain toward the San Lorenzo River or its tributary, Carbonera Creek. The project location at post mile 19.35 drains toward a small unnamed stream. The San Lorenzo River and Arana Gulch are listed on the 303(d) List for pesticides (e.g., chlorpyrifos) and pathogens. The San Lorenzo River is also on the 303(d) List for chemicals (e.g., PCBs); nitrates; sediment, and temperature. A sediment Total Maximum Daily Load for the San Lorenzo River (and associated tributaries Carbonera Creek, Lompico Creek, and Shingle Mill Creek) has been adopted.

The Davenport sub-watershed consists of several small drainages from the east side of the Santa Cruz Mountains south to the Pacific Ocean. Agricultural and open space land uses predominate. Within the Davenport sub-watershed, project location post mile 20.41 drains toward Moore Creek. Moore Creek is included on the 303(d) List of impaired waters for E. coli, dissolved oxygen, conductivity, and pH. The project location at post mile 21.52 drains toward Wilder Creek. The project location post mile 21.78 drains toward Dairy Gulch. Project locations at post miles 23.45 and 24.16 drain toward Baldwin Creek. Project locations at post miles 24.9 and 25.16 drain

toward Majors Creek. Project locations at post miles 25.73 and 25.93 drain toward Laguna Creek.

Four groundwater units lie within the project area: Majors Creek, Needle Rock Point, Santa Cruz Mid-County, and West Santa Cruz Terrace. Groundwater is anticipated to be lower than the bottom of proposed excavation activities and is therefore not expected to be impacted by the project.

Most of the project limits are in areas outside of the 100-year floodplain, designated as Zone X by the Federal Emergency Management Agency. The location at post mile 17.62 outlets to a Zone A99, which is designated as an area subject to inundation by the 1 percent annual chance flood event. The project culverts convey runoff mostly from natural drainage features or sheet flow from roadway drainage through dikes and embankment facilities.

Portions of the project area are within a designated Significant Trash Generating Area, as defined by the State Water Resources Control Board in the Caltrans Statewide Trash Implementation Plan. Caltrans is required to implement full trash capture best management practices to address the pervasive impacts of trash on the beneficial uses of receiving surface waters.

### ***Environmental Consequences***

Thirty culverts were identified as needing repair or replacement and have varying levels of invert damage, shape loss, joint separation, and/or outlet scouring. The culverts would be repaired and replaced via the cut and cover method, which is usually accomplished by digging a trench with an excavator. The trench width depends on the pipe diameter, and the depth and slope are determined by the engineer. Other drainage improvements include strategies such as stabilizing the channels and reconstructing ditches, placing new or replacing existing pipes, culvert invert paving, and joint repair. Twenty-two of the 30 culverts would be replaced with a larger-diameter pipe. The remaining 8 culverts would be replaced with the same-diameter pipe as the existing culvert.

The replacement and repair work would not alter the watersheds that contribute surface runoff via tributaries into the project culverts. Also, as culvert pipe size (diameter) increases, the drainage flow rates (velocities) decrease, and potential scour is reduced; the smaller the pipe diameter, the greater the force of water that builds up behind it. Caltrans is a named stakeholder in the sediment impairment for the San Lorenzo River watershed, and best management practices implemented for the project would help minimize sediment discharge to the impaired water bodies.

In addition, as concluded by the Location Hydraulic Study, the project would not cause a significant floodplain encroachment or have any potentially significant impact on the 100-year floodplain. The culverts would be designed in accordance with Federal Highway Administration criteria to meet required storm event requirements. Therefore, the culvert replacement/repairs would not

generate additional surface runoff that would increase flood flows in flood zones or cause additional flood hazards that would impact the ability of existing downstream stormwater facilities to convey surface drainage system capacities.

Caltrans will evaluate opportunities to retrofit infrastructure with full trash capture best management practices, such as trash nets, to address trash impacts in Significant Trash Generating Areas in the design phase to the extent feasible.

Caltrans Standard Specifications and Best Management Practices would be implemented to minimize and avoid impacts to surface water, including potential erosion and sedimentation during construction. A Water Pollution Control Plan would be required to be prepared to implement best management practices for erosion and sediment control. Implementation of these standard measures would ensure potential water quality effects are minimal and short term.

Project design features would also help minimize long-term erosion and sedimentation. Some of the existing embankments at culvert inlets and outlets are exhibiting slope failure and soil erosion. Replacement of the project culverts would provide for the opportunity to stabilize the embankment slope to prevent further embankment erosion and reduce the concentrated flow velocity.

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

No additional measures are proposed.

#### **2.1.12 Land Use and Planning**

Existing and future land uses within or adjacent to the project limits on State Route 1 would not be changed as a result of the project, nor would the project divide an established community. No changes to the alignment, function, or capacity of the highway are proposed. The project would not conflict with the elements of the County of Santa Cruz General Plan or any other land use policy or regulation intended to avoid or mitigate any effects on the environment. Because the project would repair aging drainage infrastructure within the highway corridor and would not increase the capacity of the highway, it would not directly or indirectly cause changes in land uses that would conflict with planning policies and regulations.

Coastal Zone policies and regulations for the protection of coastal resources apply to portions of the project limits along State Route 1, as discussed in Section 2.1.5 and Appendix B, Coastal Policy Analysis. Caltrans will coordinate with the County of Santa Cruz, the City of Santa Cruz, and the City of Capitola for the Coastal Development Permit application process related to the potential effects of the project on protected coastal resources and Environmentally Sensitive Habitat Areas. An application for a Coastal

Development Permit will be submitted to the County of Santa Cruz, the City of Santa Cruz, and the City of Capitola upon completion of the final environmental document. The approved permit shall specify the required replacement plantings and any other applicable mitigation measures for impacts to protected coastal resources in the coastal jurisdiction.

Considering this information, the following significance determinations have been made:

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

### 2.1.13 Mineral Resources

Based on information from the County of Santa Cruz General Plan and the Caltrans Division of Environmental Analysis Geographical Information Systems Library, there are no mineral resources such as mine locations, mining districts, oil and gas seeps, or mining disturbed areas occupying the same locations as the areas of potential impact. The entrance to the Santa Cruz Sand Plant at 1800 Coast Road is immediately west of location 33 at post mile 21.78, but no impact to the mining operations will occur. The project would not require any acquisition of land nor would it impact any mining operations that may occur near the project limits. Therefore, the following significance determinations have been made:

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

**2.1.14 Noise**

Considering the information in the Air Quality, Greenhouse Gas, and Noise Technical Memorandum dated September 2021, 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?   | <b>No Impact</b>                           |
| b) Generation of excessive groundborne vibration or groundborne noise levels?   | <b>No Impact</b>                           |
| 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? | <b>No Impact</b>                           |

**2.1.15 Population and Housing**

The project will not have an impact on population and housing. No additional housing or development is proposed, nor does the project remove or displace any existing housing.

| 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)? | <b>No Impact</b>  |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?   | <b>No Impact</b>  |

### 2.1.16 Public Services

The highway would remain open at all times during construction, and the project will not have an impact on public services.

| 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:<br><br>Fire protection? | <b>No Impact</b>                                     |
| Police protection?  | <b>No Impact</b>                                     |
| Schools?  | <b>No Impact</b>                                     |
| Parks?  | <b>No Impact</b>                                     |
| Other public facilities?  | <b>No Impact</b>                                     |

### 2.1.17 Recreation

Various types of recreational facilities are adjacent to or nearby the project limits along State Route 1. The project does not include any recreational components and would not generate an increase in population and a potential resultant demand for recreational facilities. Therefore, the project is not expected to directly or indirectly affect existing recreational facilities or cause increased demand for additional or expanded facilities.

The improvements would occur mostly in the existing state highway right-of-way. However, temporary construction easements to enable off-highway work during construction activities and permanent drainage easements for long-term facility maintenance may be required at some culvert locations. Although there are several recreational uses adjacent to culvert locations, the easements would not impact the existing recreational uses or facilities adjacent to the highway. Refinement of any easement requirements for construction and maintenance of the culvert repair locations would be conducted during the Plans, Specifications, and Estimates phase of the project. Procedures for short-term and long-term right-of-way access permission of non-state property use would be implemented through Caltrans standard procedures.

Considering this information, the following significance determinations have been made:

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

### 2.1.18 Transportation

The project would not conflict with existing transportation planning documents for the area. The project intends to improve circulation by reducing the required maintenance of existing facilities and improve transportation management and safety. The project does not include additional travel lanes, so it would not induce additional vehicle miles traveled or population growth. During construction, it is expected that one side of the freeway would be worked on at a time and at least one lane would remain open to traffic in each direction. This will ensure adequate emergency access is provided at all times.

Considering this information, the following significance determinations have been made:

| Question—Would the project:  | CEQA Significance Determinations for Transportation |
|--|---|
| a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?         | <b>No Impact</b>                                    |
| b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?  | <b>No Impact</b>                                    |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <b>No Impact</b>                                    |
| d) Result in inadequate emergency access?  | <b>No Impact</b>                                    |

### 2.1.19 Tribal Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memorandum dated December 2021, the following significance determinations have been made:

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

| Question:  | CEQA Significance Determinations for Tribal Cultural Resources |
|--|--|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or   | <b>No Impact</b>   |
| 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. | <b>No Impact</b>   |

### 2.1.20 Utilities and Service Systems

Several project locations are within areas surrounded by utility infrastructure such as traffic lights and signals, overhead and underground powerlines, storm drains and manholes, and streetlights. Locations of existing utilities would be confirmed during the Plans, Specifications, and Estimates phase of the project, and with that information, Caltrans can confirm whether or not relocations would be necessary. Caltrans will continue communication with the utility owners throughout the Plans, Specifications, and Estimates phase and the construction phase of the project to ensure that construction methods implemented for the project work locations would enable protection in place of existing utilities and that no conflicts occur with utility services or equipment. If utilities need to be relocated, Caltrans will review the proposed locations at that time to ensure no significant environmental effects are caused. The project does not include new wastewater, stormwater or natural gas lines.

| 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 stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | <b>No Impact</b>   |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?   | <b>No Impact</b>   |
| 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?   | <b>No Impact</b>   |
| 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?   | <b>No Impact</b>   |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?  | <b>No Impact</b>   |

### 2.1.21 Wildfire

Based on information in the California Department of Forestry and Fire Protection’s Fire Hazard Severity Zone Mapping and the Local Responsibility Areas of the County of Santa Cruz Geographic Information Systems Mapping, the City of Santa Cruz’s Fire Hazard Area Map, and the City of Capitola’s General Plan, the project is in an area designated as a moderate fire hazard severity zone. The following significance determinations have been made:

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

| Question—Would the project:  | CEQA Significance Determinations for Wildfire |
|--|---|
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | <b>No Impact</b>                              |

| Question—Would the project:  | CEQA Significance Determinations for Wildfire |
|--|---|
| 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?  | <b>No Impact</b>                              |
| 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? | <b>No Impact</b>                              |
| 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?  | <b>No Impact</b>                              |

**2.1.22 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? | <b>Less Than Significant Impact With Mitigation Incorporated</b>        |

| Question:  | CEQA Significance Determinations for Mandatory Findings of Significance |
|--|---|
| b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | <b>Less Than Significant Impact</b>                                     |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | <b>No Impact</b>  |

The following discussion provides information addressing questions “a” and “b” in the checklist above. Regarding question “c,” the project would repair and replace existing drainage infrastructure, improve lighting facilities, and add new Transportation Management System equipment. Potential environmental effects of the project would occur during project construction activities. The improvements would not cause substantial impacts on human beings.

***Affected Environment***

The project would affect environmental resources within and immediately surrounding post miles 8.2 to 26.0 on State Route 1 in Santa Cruz County. The scope of the project would be limited to restoration of 30 existing drainage culverts, improvement of 47 roadside safety locations by paving gore areas, rehabilitation of 32 lighting elements, and installation of 12 Transportation Management Systems, including count stations and census loops.

***Environmental Consequences***

Overall, the project is not expected to substantially degrade the quality of the environment. The project would not have a substantial adverse effect on scenic vistas or substantially alter the existing appearance of the project locations. The proposed drainage infrastructure, rehabilitated lighting, roadside safety paving, and Transportation Management System elements would incrementally increase the existing utilitarian appearance of the project work areas, but overall would be subordinate to the overall experience of traveling along the highway. Project construction would require staging areas and tree and vegetation trimming for access. Although temporary, impacts to visual quality would be minimized with the implementation of the avoidance and minimization measures discussed in Section 2.1.1 Aesthetics.

Project construction activities would cause temporary and permanent impacts to sensitive habitat areas, including California red-legged frog critical habitat, coastal Environmentally Sensitive Habitat Areas, and jurisdictional wetlands, riparian areas, and streams and other waters. Tree trimming is required at several locations to accommodate the proposed improvements, and two trees are expected to be removed.

Impacts to biological resources and sensitive habitats, including coastal Environmentally Sensitive Habitat Areas, resulting from the project would be significant. Mitigation measures are required to restore impacted areas, replant native trees, and purchase compensatory mitigation for impacts to jurisdictional areas, including Environmentally Sensitive Habitat Areas. Implementation of the mitigation measures discussed in Section 2.1.4 would reduce impacts to biological resources to less than significant.

Some greenhouse gas emissions would occur during construction from equipment, processing of construction materials, construction vehicle use, and public vehicles idling during minor traffic delays during construction. Impacts would be less than significant with the implementation of Caltrans Standard Specifications and the avoidance and minimization measures discussed in Section 2.1.8 Greenhouse Gas Emissions.

With the implementation of Caltrans Standard Specifications, Special Standard Provisions, Best Management Practices, and avoidance, minimization, and mitigation measures, impacts to environmental resources would be less than significant.

Caltrans guidance for cumulative impacts assessments includes defining a Resource Study Area, the geographic area within which impacts on a resource are analyzed. The boundaries of Resource Study Areas for cumulative impacts analysis are often broader than the boundaries used for project-specific analysis. The Resource Study Area for impacts to the California red-legged frog and jurisdictional features is defined by the 8 watersheds surrounding the project locations, with a 5-mile buffer around the watersheds. Several other projects, including Caltrans projects, may incur temporary and permanent impacts to jurisdictional features and the California red-legged frog and its critical habitat in this Resource Study Area. When considered in a cumulative effects context, this project is not anticipated to substantially contribute to adverse cumulative impacts to jurisdictional features and the California red-legged frog because the project would fully mitigate for impacts to jurisdictional features.

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

No additional measures are proposed.

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# Appendix A Title VI Policy Statement

## DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR  
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Making Conservation  
a California Way of Life.

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 14<sup>th</sup> 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](mailto:Title.VI@dot.ca.gov).

A blue ink signature of Toks Omishakin, consisting of stylized cursive letters.

Toks Omishakin  
Director

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

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## **Appendix B Coastal Policy Analysis**

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This appendix contains the relevant policies from the local coastal programs of each local jurisdiction and evaluates whether the project is consistent with those policies.

Figure B-1 shows the project locations within the Coastal Zone jurisdictions. The following pages include a listing of relevant policies from these sources:

- California Coastal Act (Resource Planning and Management Policies)
- County of Santa Cruz – Local Coastal Program (Adopted 1994)
  - Chapter 3: Circulation
  - Chapter 5: Conservation and Open Space
  - Chapter 7: Parks, Recreation and Public Facilities
  - Chapter 16.30: Riparian Corridor and Wetlands Protection
  - Chapter 16.32: Sensitive Habitat Protection
- City of Santa Cruz Local Coastal Program (Adopted 1992)
- City of Capitola Land Use Plan - Local Coastal Program (Adopted 1981)

The relevant key policies from each plan and ordinance have been grouped together by subject in Table B.1. For each key policy, a determination was made for whether the project is consistent with Coastal Zone policies, and a discussion is provided. Policies for resources that would not be affected by the project are not included.

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**Table B.1 Coastal Policy Analysis**

| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>   | <p align="center"><b>Policy Consistency Analysis</b></p>  |
|---|---|
| <p><b>AGRICULTURAL RESOURCES</b></p> <p><b>Coastal Act Section 30241 (in relevant part):</b> The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas’ agricultural economy, and conflicts shall be minimized between agricultural and urban land uses.</p> <p><b>Coastal Act Section 30242 (in relevant part):</b> All other lands suitable for agricultural use shall not be converted to nonagricultural uses.</p> <p><b>Coastal Act Section 30243:</b> The long-term productivity of soils and timberlands shall be protected, and conversions of coastal commercial timberlands in units of commercial size to other uses or their division into units of noncommercial size shall be limited to providing for necessary timber processing and related facilities.</p> <p><b>City of Santa Cruz Policy EQ.3.4:</b> Protect significant agriculture and grazing lands within and along the periphery of the City from development utilizing exclusive agriculture/grazing zoning and Williamson Act contracts.</p> <p><b>City of Santa Cruz Policy L.3.3:</b> Require development adjacent to natural areas and agricultural/grazing lands to be compatible with adjacent lands in terms of land use, visual transition and siting.</p> | <p>No prime agricultural lands or timberlands are located within the project locations. No soils within the project area are designated as Class I or Class II.</p> <p>Agricultural grazing lands are found within or adjacent to several of the project locations. There would be no long-term changes to land use, and the project would not affect any agricultural activities. Therefore, no conflicts with California Coastal Act or the Local Coastal Program policies of the County of Santa Cruz or City of Santa Cruz related to agricultural resources would result from implementation of the project.</p> |
| <p><b>PUBLIC ACCESS AND RECREATION</b></p> <p><b>Coastal Act Section 30210:</b> In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.</p> <p><b>Coastal Act Section 30211:</b> Development shall not interfere with the public’s right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.</p>  | <p>The project would not conflict with specified policies relating to public access and recreation. The project would improve coastal access by reducing ongoing maintenance needs, improving roadside safety, and improving the reliability of Transportation Management Systems. The project is therefore consistent with these policies.</p>   |

| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>  | <p align="center"><b>Policy Consistency Analysis</b></p>   |
|--|--|
| <p><b>Coastal Act Section 30213:</b> Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.</p> <p><b>County of Santa Cruz Policy 3.14.2:</b> Priority to recreational improvements. In the development of transportation improvement programs, consider giving priority to road improvements that provide access to recreational resources.</p> <p><b>County of Santa Cruz Policy 7.7.10:</b> Protecting Existing Beach Access. Protect existing pedestrian, and, where appropriate, equestrian and bicycle access to all beaches to which the public has a right of access, whether acquired by grant or through use, as established through judicial determination of prescriptive rights, and acquisition through appropriate legal proceedings. Protect such beach access through permit conditions such as easement dedication or continued maintenance as an accessway by a private group, subject to policy 7.6.2.</p> <p><b>City of Santa Cruz Policy L.3.5:</b> Protect coastal recreation areas, maintain all existing coastal access points open to the public, and enhance public access, open space quality and recreational enjoyment in a manner that is consistent with the California Coastal Act.</p>  |  |
| <p><b>VISUAL RESOURCES AND COMMUNITY CHARACTER</b></p> <p><b>Coastal Act Section 30251:</b> The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.</p> <p><b>County of Santa Cruz Policy 5.10.2:</b> Development within visual resources. Recognize that visual resources of Santa Cruz County possess diverse characteristics and that the resources worthy of protection may include, but are not limited to, ocean views, agricultural fields, wooded forests, open meadows, and mountain hillside views. Require projects to be evaluated against the context of their unique environment and regulate structure height, setbacks, and design to protect these resources consistent with the objectives and policies of this section. Require discretionary review for all development within the visual resource area of State Route 1, outside of the urban/rural</p> | <p>The project is located well inland from the shoreline, no closer than a quarter mile, and the portion of State Route 1 within the project limits is not designated as a State Scenic Highway. The project would not obstruct public views or ocean vistas, nor modify ridgetops.</p> <p>The project would result in visual impacts from vegetation removal, installation of structures such as culvert improvements, Transportation Management System elements, and additional paving that would be visible from the roadway. These elements would cause a minor reduction of rural character and visual quality.</p> <p>During and following construction, the most noticeable aspect of the project would likely be the potential staging areas, and a reduction in</p> |

| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>   | <p align="center"><b>Policy Consistency Analysis</b></p>  |
|---|---|
| <p>boundary, as designated in the general plan/local coastal program visual resources map and apply the design criteria of Section 13.20.130 of Santa Cruz County’s zoning ordinance to such development.</p> <p><b>County of Santa Cruz Policy 5.10.4:</b> Preserving natural buffers. Preserve the vegetation and landform of natural wooded hillsides that serve as a backdrop for new development. Also, comply with policy 8.6.6 regarding the protection of ridgetops and natural landforms.</p> <p><b>County of Santa Cruz Policy 5.10.6:</b> Where public ocean vistas exist, require that these vistas be retained to the maximum extent possible as a condition of approval for any new development.</p> <p><b>County of Santa Cruz Policy 5.10.8:</b> Significant tree removal ordinance. Maintain the standards in Santa Cruz County’s existing ordinance, which regulates the removal of significant trees and other major vegetation in the Coastal Zone and provides appropriate protection for significant trees and other major vegetation in areas of Santa Cruz County within the Urban Services Line.</p> <p><b>City of Santa Cruz Policy CD.2.1:</b> Preserve natural features providing visual definition to an area within the City.</p> <p><b>City of Santa Cruz Policy CD.2.2:</b> Preserve important public views and viewsheds by ensuring that the scale, bulk and setback of new development does not impede or disrupt them.</p> <p><b>City of Santa Cruz Policy L.1.6:</b> Minimize, when practical, obstruction of important views and viewsheds by new development. In the Coastal Zone, development shall be sited and designed to and along the ocean and in scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and to restore visual quality in visually degraded areas.</p> <p><b>City of Capitola Policy 3-4:</b> It shall be the policy of the City of Capitola to require the planting of trees in new development and to protect existing trees by allowing removal only in accordance with the City’s Tree Ordinance. The City should encourage new developments to be designed to preserve significant vegetation.</p> <p><b>City of Capitola Policy 3-5:</b> Permitted development shall not block or detract from public views to and along Capitola’s shoreline.</p> | <p>trees and native vegetation associated with the drainage construction access. Although some of these actions may be considered temporary, any associated tree and vegetation removal and/or severe pruning may be noticed after construction, resulting in a loss of visual quality.</p> <p>Minimization measures include vegetation preservation, revegetation of all disturbed surfaces with native species, replacement planting of native trees, and aesthetic treatments to paving beyond gore areas, metal roadside elements, and Transportation Management System elements.</p> <p>With the incorporation of these measures, the project would be consistent with the policies protecting visual resources.</p> |

| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>   | <p align="center"><b>Policy Consistency Analysis</b></p>  |
|---|---|
| <p><b>WETLANDS AND BIOLOGICAL RESOURCES</b></p> <p><b>Coastal Act Section 30230:</b> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreation, scientific, and educational purposes.</p> <p><b>Coastal Act Section 30231:</b> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.</p> <p><b>Coastal Act Section 30233: (in relevant part).</b> (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) New or expanded port, energy, and coastal dependent industrial facilities, including commercial fishing facilities. (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps. (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities. (4) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines. (5) Mineral extraction, including sand for beaches, except in environmentally sensitive areas. (6) Restoration purposes. (7) Nature study, aquaculture, or similar resource dependent activities.</p> <p><b>County of Santa Cruz Policy 5.1.4:</b> Protection of sensitive habitats. Implement the protection of sensitive habitats by maintaining the existing sensitive habitat protection ordinance. The ordinance identifies sensitive habitats, determines the uses that are allowed in and next to sensitive habitats, and specifies required performance standards for land in or next to these areas. Any amendments</p> | <p>The project would have unavoidable impacts to jurisdictional areas, sensitive natural communities, and federally designated critical habitat and therefore would be potentially inconsistent with coastal policies to protect biological resources. Avoidance, minimization, and mitigation measures in Section 2.1.4 would reduce impacts to biological resources. The project would seek an exception, per Santa Cruz County Code 16.32.100, which would be granted upon approval of the environmental coordinator following a biotic review pursuant to Santa Cruz County Code 16.32.070.</p> <p>Impacts were quantified based on ground disturbance and vegetation disturbance/tree removal at all project locations, including potential disturbance areas for both permanent and temporary impacts and assuming the maximum amount of disturbance associated with construction of the project (including cut and fill, staging, and access).</p> <p>Temporary impacts would consist of staging and storage areas, equipment access, clearing vegetation, and temporary dewatering/diversion, if needed. Permanent impacts would result from gore paving, rock slope protection installation, and new foundations needed for lighting elements and Transportation Management Systems.</p> <p>Following construction, it is anticipated that all areas of temporary disturbance to natural habitats would be stabilized and revegetated.</p> |

| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>  | <p align="center"><b>Policy Consistency Analysis</b></p>  |
|--|---|
| <p>to this ordinance shall require a finding that sensitive habitats shall be afforded equal or greater protection by the amended language.</p> <p><b>County of Santa Cruz Policy 5.1.6:</b> Development within sensitive habitats. Sensitive habitats shall be protected against any significant disruption of habitat values. Any proposed development within or next to these areas must maintain or enhance the functional capacity of the habitat. Reduce in scale, redesign, or, if no other alternative exists, deny any project that cannot sufficiently mitigate significant adverse impacts on sensitive habitats unless approval of a project is legally necessary to allow reasonable use of the land.</p> <p><b>County of Santa Cruz Policy 5.2.2:</b> Riparian corridor and wetland protection ordinance. Implement the protection of riparian corridors and wetlands through the Riparian Corridor and Wetland Protection ordinance to ensure no net loss of riparian corridors and riparian wetlands. The ordinance identifies and defines riparian corridors and wetlands, determines the uses that are allowed in and next to these habitats, and specifies required buffer setbacks and performance standards for land in and next to these areas. Any amendments to this ordinance shall require a finding that riparian corridors and wetlands shall be afforded equal or greater protection by the amended language.</p> <p><b>County of Santa Cruz Policy 5.2.3:</b> Activities within riparian corridors and wetlands. Development activities, land alteration, and vegetation disturbance within riparian corridors and wetlands and required buffers shall be prohibited unless an exception is granted per the Riparian Corridor and Wetlands Protection ordinance. As a condition of riparian exception, require evidence of approval for development from the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and other federal or state agencies that may have regulatory authority over activities within riparian corridors and wetlands.</p> <p><b>County of Santa Cruz Policy 5.2.5:</b> Setbacks from wetlands. Prohibit development within the 100- foot riparian corridor of all wetlands. Allow exceptions to this setback only where consistent with the Riparian Corridor and Wetlands Protection ordinance, and in all cases, maximize the distance between proposed structures and wetlands. Require measures to prevent water quality degradation from nearby land uses, as outlined in the water resources section.</p> <p><b>County of Santa Cruz Riparian Corridor and Wetlands Protection Ordinance (Chapter 16.30 of the Santa Cruz County Code).</b> The purpose of this Ordinance is to minimize and to eliminate any development activities in the riparian corridor, preserve, protect, and restore riparian corridors</p> | <p>The project would require a Clean Water Act Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife.</p> <p>A Mitigation and Monitoring Plan would be prepared to mitigate impacts to jurisdictional areas and coastal Environmentally Sensitive Habitat Areas. Temporary impacts would be restored at a 1-to-1 ratio (acreage), and compensatory mitigation for permanent impacts to jurisdictional areas is proposed at a 3-to-1 ratio (acreage).</p> <p>The Federal Endangered Species Act Section 7 effects determination is that the project may affect, and is likely to adversely affect, the California red-legged frog and its critical habitat. It is anticipated that the project would meet the criteria for the Programmatic Biological Opinion for the purposes of U.S. Fish and Wildlife Service consultation.</p> <p>Limited tree removal is anticipated with this project. Tree replanting would be included in the project plans to offset the loss of any trees. Native trees would be replanted at a minimum of a 10-to-1 replacement ratio.</p> <p>Avoidance and minimization of ground disturbance due to project-related actions would be achieved with the establishment of Environmentally Sensitive Areas, and fencing</p> |

| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>   | <p align="center"><b>Policy Consistency Analysis</b></p>   |
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| <p>for: protection of wildlife habitat; protection of water quality; protection of aquatic habitat; protection of open space, cultural, historical, archaeological and paleontological, and aesthetic values; transportation and storage of floodwaters; prevention of erosion; and to implement the policies of the General Plan and the Local Coastal Program Land Use Plan.</p> <p><b>County of Santa Cruz Sensitive Habitat Protection Ordinance (Chapter 16.32 of the Santa Cruz County Code).</b> The purpose of this ordinance is to minimize disturbances to biotic communities that are rare or especially valuable because of their special nature or role in an ecosystem and could be easily disturbed or degraded by human activity; protect and preserve these biotic resources for their genetic, scientific, and educational values and implement policies of the general plan and the Local Coastal Program Land Use Plan.</p> <p><b>City of Santa Cruz Policy EQ.4.2:</b> Preserve and enhance the character and quality of riparian and wetland habitats, as identified on Maps EQ-8 and EQ-11 of the City General Plan, or as identified through the planning process or as designated through the environmental review process.</p> <p><b>City of Santa Cruz Policy EQ.4.4:</b> Preserve the character and quality of brush, mixed evergreen forest, Monterey pine, redwood forest and eucalyptus habitats, as identified on Map EQ-8 by minimizing removal of trees and brush where they are an integral part of the community or habitat and requiring introduced landscaping to be compatible with the established tree and/or brush community.</p> <p><b>City of Santa Cruz Policy EQ.4.5:</b> Continue the protection of rare, endangered, sensitive and limited species and the habitats supporting them as shown in Map EQ-9 or as identified through the planning process or as designated as part of the environmental review process.</p> <p><b>City of Santa Cruz Policy EQ.4.6:</b> Encourage the planting and restoration of native rather than non-native vegetation throughout the City and also in areas where plants or habitats are diseased or degraded.</p> <p><b>City of Santa Cruz Policy CD.6.1:</b> Protect existing significant vegetation and landscaping that provides scenic as well as wildlife habitat and forage value.</p> | <p>would be used to protect these areas and trees to avoid. Fencing the Environmentally Sensitive Areas would ensure that unnecessary disturbance does not occur outside of the project limits. Environmentally Sensitive Area limits would be shown on the final layout plans.</p> <p>Although temporary and permanent impacts to wetlands, riparian, and stream areas would occur from the replacement of several culverts within the Coastal Zone, measures to minimize impacts and measures to restore impacted areas would reduce adverse effects to the maximum extent feasible.</p> |

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| <p><b>Environmentally Sensitive Habitat Area (ESHA)</b></p> <p><b>Coastal Act Section 30107.5:</b> “Environmentally sensitive area” means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.</p> <p><b>Coastal Act Section 30240:</b> (a) Environmentally Sensitive Habitat Areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas next to Environmentally Sensitive Habitat Areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.</p> | <p>The proposed project would result in permanent and temporary impacts to Environmentally Sensitive Habitat Areas in the Coastal Zone:</p> <ul style="list-style-type: none"> <li>- Less than 0.001 acre (34.1 square feet) of unavoidable permanent impacts and less than 0.001 acre (1.1 square feet) of temporary impacts to Coastal Wetland Environmentally Sensitive Habitat Area.</li> <li>- Less than 0.001 acre (35.3 square feet) of temporary impacts to Wetland Environmentally Sensitive Habitat Area.</li> <li>- Less than 0.001 acre (15.9 square feet) of unavoidable permanent impacts and 0.006 acre (284.7 square feet) of temporary impacts to Stream Environmentally Sensitive Habitat Area.</li> <li>- Less than 0.001 acre (57.4 square feet) of unavoidable permanent impacts and 0.003 acre (91.1 square feet) of temporary impacts to Riparian Environmentally Sensitive Habitat Area.</li> </ul> <p>The Environmentally Sensitive Habitat Area impacts described above are within the County of Santa Cruz coastal jurisdiction. The project would seek an exception, per Santa Cruz County Code 16.32.100, which would be granted upon approval of the environmental coordinator following a biotic review pursuant to Santa Cruz County Code 16.32.070.</p> <p>The proposed transportation improvement project is not a resource-dependent use, and therefore is not allowed in Environmentally Sensitive Habitat Area consistent with Section 30240. Several alternatives have been evaluated, and no other design or siting</p> |
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| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>  | <p align="center"><b>Policy Consistency Analysis</b></p>  |
|--|---|
|  | <p>alternative is feasible that meets the purpose and objectives of the project without requiring impacts to Environmentally Sensitive Habitat Area. However, mitigation measures would minimize adverse environmental effects, including mitigation at 3-to-1 ratio for permanent impacts to jurisdictional areas and mitigation at a 1-to-1 ratio for temporary impacts to jurisdictional areas.</p>  |
| <p><b>Water Quality</b></p> <p><b>Coastal Act Section 30230:</b> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreation, scientific, and educational purposes.</p> <p><b>Coastal Act Section 30231:</b> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.</p> <p><b>Coastal Act Section 30232:</b> Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.</p> <p><b>City of Santa Cruz Policy EQ.2.3:</b> Ensure that new development or land uses near surface water and groundwater recharge areas do not degrade water quality.</p> | <p>The project involves replacement of culverts to ensure drainage is functional under the roadways, and impacts to wetlands and creeks may occur. No permanent impacts are anticipated to stormwater or groundwater. Additional pavement areas total less than 1 acre and are not anticipated to impact water quality. Permanent impacts to jurisdictional waters from gore paving, rock slope protection, and new foundations for lighting elements and Transportation Management Systems are expected. Impacts would be reduced by restoration and compensatory mitigation at a 3-to-1 ratio for permanent impacts to jurisdictional areas.</p> <p>Temporary construction activity has the potential to generate runoff, which could impact the water quality of nearby creeks. Impacts would be reduced by the application of Standard Specifications, including preparation of a Water Pollution Control Plan and adherence to Best Management Practices. Minimization measures to preserve vegetation</p> |

| <p align="center"><b>California Coastal Act Chapter 3<br/>County of Santa Cruz 1994 General Plan and Local Coastal Program<br/>City of Santa Cruz 1992 Local Coastal Program and Coastal Land Use Policies and Maps<br/>City of Capitola 2005 Land Use Plan and Local Coastal Program</b></p>  | <p align="center"><b>Policy Consistency Analysis</b></p>  |
|--|---|
| <p><b>City of Santa Cruz Policy EQ.3.1:</b> Require site design and erosion control measures in areas subject to erosion hazards or adjacent to streams and wetland areas to minimize grading activities and vegetation removal.</p> <p><b>City of Capitola Policy 6-5:</b> The City of Capitola shall, as a condition of new development, ensure that runoff does not significantly impact the water quality of Capitola’s creeks and wetlands through increased sedimentation, biochemical degradation, or thermal pollution.</p>  | <p>and restore disturbed areas would also reduce potential impacts to water quality.</p> <p>With the implementation of these measures, the project would be consistent with the water quality protection policies of the Coastal Act and local coastal program policies.</p>  |
| <p><b>Archeological and Paleontological Resources</b></p> <p><b>Coastal Act Section 30244:</b> Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.</p> <p><b>County of Santa Cruz Policy 5.19.3:</b> Development around archaeological resources. Protect archaeological resources from development by restricting improvements and grading activities to portions of the property not containing these resources, where feasible, or by the preservation of the site through project design and/or use restrictions, such as covering the site with earthfill to a depth that ensures the site will not be disturbed by development, as determined by a professional archaeologist.</p> <p><b>City of Santa Cruz Policy CR.1.2:</b> Identify sensitive archaeological and paleontological sites early in land-use planning and/or development process so archaeological and paleontological resources can be given consideration during the conceptual design phase of private or public projects.</p> <p><b>City of Capitola Policy 1-3:</b> It shall be the policy of the City of Capitola to provide for the protection, preservation, and proper disposition (where necessary) of archaeological, historical, and paleontological resources within the city. This policy shall be implemented in cooperation with the landowners, developers, State Historic Preservation Office, and the University of California, Santa Cruz Archaeological Research Center.</p> | <p>The project would avoid known archaeological sites and is therefore consistent with these policies. In the event of an inadvertent discovery, appropriate protocols would be implemented, including work stoppage, until a qualified archaeologist can evaluate the discovery. Also, no paleontological resources are anticipated because the improvements will take place on existing pavement, shoulder areas, and fill sections where previous soil disturbance has occurred.</p> |

## **Appendix C** Comment Letters and Responses

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[This appendix has been added since the draft environmental document was circulated.] This appendix contains the comments received during the public circulation and comment period from July 26, 2022, to August 26, 2022, retyped for readability. A Caltrans response follows each comment presented. Volume 2 contains the comment letters in their entirety.

A notice was published in the local newspaper, *The Santa Cruz Sentinel*, and on the Caltrans website with information of the document's availability for review and comment and to advertise an opportunity for a virtual public meeting. A public meeting was not requested.

(Note: The comment letters are stated verbatim, with acronyms, abbreviations, and any original grammatical or typographical errors.).

## **Comment from the California Department of Fish and Wildlife**

### **Comment 1: Project Design Analysis and Coordination**

CEQA Guidelines §15126.4 (a) requires lead agencies to consider feasible mitigation measures to avoid or substantially reduce a project's significant environmental impacts. The MND does not sufficiently disclose or analyze potentially significant impacts to some fish and wildlife resources. In addition, the MND notes that unidentified culverts may also be modified as a result of Project completion. Site-specific locations should be identified to ensure impacts to fish and wildlife resources can be fully described, culverts are designed to meet the flow capacity of a given system, protect fish passage in fish bearing systems and to ensure potential wildlife barriers are remediated to terrestrial connectivity.

Response to Comment 1: Caltrans has identified and assessed potential impacts for all project locations in Tables 1.1, 1.2, 1.3, and 1.4 in the environmental document. No additional locations are proposed.

Caltrans will engage in early coordination with the California Department of Fish and Wildlife during the project's subsequent design phase (also referred to as the Plans, Specifications, and Estimates phase). Caltrans anticipates that design drawings and specification planning sheets will be shared with California Department of Fish and Wildlife staff to coordinate with the appropriate branches as described during the design and permitting process for review and comment.

Detailed mitigation and restoration plans will be prepared and developed during the subsequent project design phase. Caltrans expects to provide plans with the permit application submittals. At this time, given the limited scale of impacts, mitigation is anticipated to include onsite planting within the existing Caltrans right-of-way.

### **Comment 2: Tree Removal Analysis**

The MND has not sufficiently disclosed or adequately analyzed the details surrounding tree removals throughout the Project limits. Page 6 of the MND notes; "It is anticipated that tree removal and pruning will be required at 9 culvert locations". The lead agency fails to describe the species of trees, number of trees, or size of trees that will be removed and/or pruned at each location. Furthermore, the lead agency does not propose permanent protection or long-term management of replacement trees. In addition, the proposed avoidance and minimization measures MM BIO-8: Replacement plantings of native trees, MM BIO-9: Tree Replanting's, MM BIO-14: Tree Removal, and MM Bio-17 Eucalyptus Tree Removal, do not adequately protect trees in place or seek to offset the potentially the impacts from the proposed tree removals.

Response to Comment 2: Tree removal data has been updated and added to Section 2.1.4 Biological Resources.

Caltrans will continue to avoid and minimize impacts to oak trees and riparian vegetation to the greatest degree feasible through the design phase of the project. Avoidance and Minimization Measure BIO-2 specifies prior to any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around jurisdictional features and the dripline of trees to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas will be noted on design plans and delineated in the field prior to the start of construction activities.

The two trees proposed for removal will be replanted using a 10-to-1 replacement ratio and will be included in the project landscaping plans overseen by Caltrans Landscape Architecture for a 1-year plant establishment period.

Detailed mitigation and restoration plans will be prepared and developed during the subsequent project design phase. Caltrans expects to provide plans with the permit application submittals. At this time, given the limited scale of impacts, mitigation is anticipated to include onsite planting within the existing Caltrans right-of-way.

### Comment 3: Santa Cruz Long-Toed Salamander

The MND does not disclose Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*; SCLTS) may occur within the Project location. The Project is located within a half mile of documented SCLTS occurrences (BIOS, 2022). The Project has potential to cause significant impacts to the species. If SCLTS occur within or disperse into the area, the Project has the potential cause direct take of SCLTS through ground excavation, use of heavy machinery, and clearing habitat. The Project is set to occur within the vicinity of known breeding ponds for SCLTS that include Valencia, Willow Canyon, Seascape 1, Seascape 2, Seascape 3, and Racehorse Lane. The Santa Cruz long-toed salamander is an endangered species under CESA (Fish & G. Code, § 2050 et seq.) and a Fully Protected species (Fish & G. Code § 5050).

Response to Comment 3: The project's Natural Environment Study includes a discussion of the Santa Cruz long-toed salamander that acknowledges the Biological Study Area for this project is within the species' range (*Ellicot-Buenavista and Valencia-Seascape* metapopulations). The Natural Environment Study indicates no suitable habitat occurs within any of the discrete areas of potential impact. Various and numerous infrastructure barriers exist within one-half mile of project locations, which would impede the movement of the Santa Cruz long-toed salamander into any project areas. Iterative efforts were made to avoid

impacts to suitable habitat, including Valencia Lagoon, which is within one-half mile of project locations. There are no records of Santa Cruz long-toed salamander occurrences at any of the project locations, and no Santa Cruz long-toed salamanders were observed within the Biological Study Area during biological surveys. The project will avoid impacts to the Santa Cruz long-toed salamander, including suitable habitat.

#### Comment 4: Fish Passage Assessment

Multiple potential fish passage barriers and unassessed locations exist within the identified Project limits, as described in the recommendations section below. Senate Bill 857 (SB-857), which amended Fish and Game Code § 5901 and added § 156 to the Streets and Highways Code states in § 156.3, “For any project using state or federal transportation funds programmed after January 1, 2006, [Caltrans] shall ensure that, if the project affects a stream crossing on a stream where anadromous fish are, or historically were found, an assessment of potential barriers to fish passage is done prior to commencing project design. [Caltrans] shall submit the assessment to the [CDFW] and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the [CDFW].

Response to Comment 4: Please refer to Table 1.1 for a complete list of project culverts. This project does not contain any elements that impact fish passage. No culvert work is proposed at Location 1, Location 2, Location 3, Location 4, Location 5, Location 6, Location 7, Location 8, Location 9, Location 11, Location 12, Location 13, Location 14, Location 15, Location 16, Location 17, Location 18, Location 19, Location 20, Location 21, Location 22, Location 23, Location 24, Location 26, or Location 27.

Location 10, consisting of the Rodeo Creek Gulch stream crossing and any associated riparian vegetation is entirely outside of the Area of Potential Impact of the proposed work at post mile 14.00. No jurisdictional features are affected at this location.

Location 25 consists of a concrete-lined ditch upstream of the culvert with no contributing basin. Caltrans will complete a habitat assessment for this location to update the Passage Assessment Database to document the lack of habitat.

Location 28 at Majores Creek will not be affected by the project; the inlet and outlet of the culvert at post mile 24.91 are outside of the Area of Potential Impact. The proposed work at post mile 24.90 will impact the

culvert at the small drainage crossing the dirt road with a very steep slope (greater than 20%).

Location 29 has a contributing basin of 0.2 square mile and an active channel width of approximately 2 feet. Based on LiDAR information, the slope upstream of the culvert is approximately 20% in the 250 feet upstream of the culvert. Caltrans will document the lack of habitat for this location to update the Passage Assessment Database with a habitat assessment.

#### Comment 5: Monarch Overwintering

The draft MND does not discuss potential impacts to potential monarch butterfly overwintering colonies or suitable overwintering habitat. CDFW is concerned about the loss of trees and host plants needed for to support the monarch butterfly life cycle. The loss of suitable overwintering habitat for monarchs will contribute to extirpation of western monarch populations. If projects will remove trees used by over-wintering monarchs, tree planting alone is unlikely to be sufficient to mitigate impacts to a less-than-significant level. Known overwintering sites for monarch butterfly populations according to findings in Monarch Butterfly modeling (BIOS; DS 2861) and the Western Monarch Count Organization show six overwintering sites occurring within the vicinity of the Project. The sites are designated with the followings ID's 2087 (36.9791, -121.9231), 2086 (36.9797, -121.9309), 2984 (36.9784, -121.9575), 2997 (36.9795, -122.03557), 2994 (36.9627, -122.0593), 2993 (36.9611, -122.0834) (<https://www.westernmonarchcount.org/find-an-overwintering-site-near-you/>).

Response to Comment 5: No trees, host plants, or habitat will be removed at project locations that occur within one-half mile of the six overwintering sites listed.

#### Comment 6: Wildlife Connectivity

California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure disrupt species habitat and cut off migration corridors (Senate Bill 790; SB-790). This Project location occurs within an irreplaceable and essential connectivity corridor. The current baseline condition of the SR-1 corridor represents a semi-permeable to permeable location for terrestrial wildlife connectivity. The proposal to construct alternatives that result in highway lane expansions have the potential to create a non-permeable barrier to terrestrial wildlife connectivity. The proposed increase in roadside safety locations, rehabilitation of lighting elements, shoulder widening, extensive median barriers, edge of pavement barriers, vehicle pullouts and access roads will all significantly expand the width and complexity of the corridor.

Response to Comment 6: The following discussion of wildlife habitat connectivity is included in the Natural Environment Study:

The project will not add lanes or features that have potential to significantly impair wildlife connectivity. The project area is not characterized as an Essential Habitat Connectivity Area at the landscape-scale (California Essential Habitat Connectivity Project, Spencer et al. 2010). The region includes limited areas of open space that could be used by a variety of wildlife species; however, wildlife connectivity opportunity throughout the Biological Study Area is generally limited due to urban and residential land use throughout most of the project area. Wildlife connectivity value is highest in the Davenport end of the project (post mile 24.6 to post mile 26.0) and lowest in the urban area closest to the city of Santa Cruz (post mile 9.37 where culvert work begins to post mile 24.6).

California Department of Fish and Wildlife's Areas of Conservation Emphasis Terrestrial Connectivity dataset assigns values of connectivity opportunity. Rank 1 is limited (i.e., land use limits connectivity), Rank 2 is large natural habitat areas (i.e., greater than 2,000 acres of natural habitat where connectivity is generally intact), Rank 3 is connections with implementation flexibility (i.e., areas identified as having importance, but have not been identified more specifically to date), and a Rank 5 being irreplaceable and essential to connection (i.e., channelized areas identified in a model developed by The Nature Conservancy and priority movement corridors). The following ranking was determined by overlaying the Areas of Conservation Emphasis Terrestrial Connectivity dataset with the Biological Study Area:

- Post mile 9.37 to post mile 16.7: Rank 1
- Post mile 16.7 to post mile 18: Rank 3
- Post mile 18 to post mile 21: Rank 1
- Post mile 21 to post mile 22.6: Rank 2
- Post mile 22.6 to post mile 22.8: Rank 1
- Post mile 22.9 to post mile 24.2: Rank 3
- Post mile 24.3 to post mile 24.6: Rank 1
- Post mile 24.6 to post mile 26.0: Rank 5

The culverts being addressed by this project within the Biological Study Area are small (36-inch diameter or smaller) and do not provide substantial opportunities for movement under the highway. Six culvert locations are

within post mile 24.6 to post mile 26.0, Rank 5. Three of the culverts are 24-inch or 36-inch and will be replaced with the same-size culverts, and the other three culverts are 18-inch and will be replaced with larger culverts, either 24-inch or 36-inch in diameter, thus increasing culvert size. No median barriers exist within this 1.4-mile stretch, and none are proposed to be installed as part of this project. This work will not separate natural landscape blocks (California Essential Habitat Connectivity Project, Spencer et al. 2010).

#### Comment 7: Special-Status Plants

State threatened, endangered or rare plant species may occur within the Project area. Without appropriate mitigation measures, the Project could significantly impact these species. Potential impacts to special-status plants include disrupting reproduction, mortality to individuals and/or populations. Unauthorized take of plant species listed as threatened, endangered, or rare pursuant to CESA or the Native Plant Protection Act is a violation of Fish and Game Code. Special-status plants are typically narrowly distributed endemic species. These species are susceptible to habitat loss and habitat fragmentation resulting from development, vehicle and foot traffic, and introduction of non-native plant species.

Response to Comment 7: Seven botanical surveys were conducted between April 29, 2020 and April 5, 2021 to determine the presence of special-status plants. No special-status plant species were identified in the Biological Study Area during appropriately timed surveys. Also, California Natural Diversity Database records were obtained in 2018 and updated several times since to identify potential special-status species in the Biological Study Area. Table 4 in the Natural Environment Study lists the species with potential to occur within the Biological Study Area. Section 2.1.4 Biological Resources summarizes this, and no avoidance or minimization measures were included. If state-listed species are identified during construction, measures will be included to ensure full avoidance.

#### Comment 8: Light Impact Analysis and Discussion

A significant portion of the proposed Project within the SR-1 corridor does not contain any overhead or artificial light sources. The Project proposes 32 lighting improvements along SR-1. Artificial light spillage beyond the prism of the roadway into natural areas may result in a potentially significant impacts through substantial degradation of the quality of the environment. Artificial light pollution also has the potential to significantly and adversely affect biological resources and the habitat that supports them. Unlike the natural brightness created by the monthly cycle of the moon, the permanent and continuously powered lighting fixtures create an unnatural light regime that produces a constant light output. Continuous light output for 365 days a year can also have cumulatively significant impacts on fish and wildlife populations.

Response to Comment 8: There are no lighting rehabilitation elements that increase lighting as part of this project. Rather, three of the 32 existing lighting elements will be removed completely at the Freedom Boulevard interchange, resulting in a decrease of the total number of artificial light sources. Twenty-six existing lighting elements with a 165-watt bulb will be replaced in kind with a 165-watt bulb, and the remaining three existing lighting elements with a 265-watt bulb will be replaced in kind with a 265-watt bulb. All lighting rehabilitation will be replacement of existing lighting fixtures with similar output; therefore, the project does not propose an increase in lighting, and the baseline conditions remain unchanged.

Concrete median barriers do not exist at the five existing lighting locations and are not proposed for this project. Also, new barriers may further inhibit wildlife movement and may result in increased visual impacts.

All road striping and signs will be up to current Caltrans design and safety standards. Signs are reflective and are designed to increase visibility of roads to drivers and reduce the need for electrical lighting. No measures for reflective signs and road striping are required since these items are typically included as standard project features for all Caltrans projects.

### **Comments from the California Coastal Commission**

Comment 1: Habitat and Wetlands. We are pleased to see that Caltrans has sited and design the various project elements to minimize habitat impacts such that the total estimated impact acreages are relatively small (i.e., thousandths of an acre). We also note that Caltrans appropriately proposes to mitigate permanent impacts at a 3:1 ratio and temporary impacts at a 1:1, and to replace native trees at a minimum 10:1 ratio. We suggest Caltrans quickly move beyond these ratios and include substantive mitigation proposals as part of the project and coordinate early with the relevant LCP government staff on developed a full and adequate mitigation proposal.

Response to Comment 1: Detailed mitigation and restoration plans will be further developed during the subsequent project design phase. Caltrans expects to provide plans with the application submittals for coastal development permits with each respective jurisdiction. At this time, given the limited scale of impacts, mitigation is anticipated to include onsite planting within the existing Caltrans right-of-way.

Comment 2: Visual Resources. For several of the culvert locations, Table 1.1 states that portions of existing guardrail may need to be removed and replaced in order to replace the culvert. At these locations, new concrete or paving should not be installed under the replacement guardrail where it does not already exist.

Response to Comment 2: Comment noted. At this time, no new concrete or paving is anticipated to be installed or needed at the proposed locations where guardrail will be removed and replaced (where it does not already exist).

Comment 3: Visual Resources. We appreciate that Caltrans proposes several minimization measures include vegetation preservation, revegetation of all disturbed surfaces with native species, replacement planting of native trees, and aesthetic treatments to paving beyond gore areas, metal roadside elements, and Transportation Management System elements. We further suggest that Caltrans identify and incorporate into the project measures to avoid extending drainpipes out from the roadway and avoiding the placement of large headwalls and RSP that are visible from the roadway or nearby public access viewpoints.

Response to Comment 3: Caltrans' preference is to avoid extending culvert drainpipes out from the roadway, although the specific length of drainpipes and locations of headwalls and rock slope protection will be further developed by Caltrans Design and Hydraulics during the subsequent project design phase, with review by the Landscape Architecture and Environmental units. Plans will be provided with the application materials for coastal development permits with each respective jurisdiction for review.

Comment 4: Visual Resources. We also encourage consideration of any opportunities to install vegetation to visually screen infrastructure elements, both new and existing, within the highway corridor (e.g., utility cabinets, count stations) in order to fully minimize and mitigate the permanent visual impact of the proposed project features.

Response to Comment 4: The Caltrans Landscape Architecture unit will coordinate with Design during the subsequent project design phase to ensure there is sufficient planting to screen views of the proposed infrastructure improvements, as feasible, while still providing access for future maintenance and inspections. Caltrans will consider the balance of visibility with access and security, as well as the increased sensitivity of proposed infrastructure improvements within the Coastal Zone as planting plans are developed.

Comment 5: Coastal Access. Given the importance of Highway 1 to public coastal access throughout the project area, we suggest that Caltrans schedule any traffic restrictions associated with constructing project elements in the Coastal Zone to avoid the summer season, when coastal visitorship is highest, particularly on weekends and holidays. We anticipate that Caltrans will develop a Traffic Management Plan and we suggest that be developed in advance of the CDP process, consistent with these thoughts.

Response to Comment 5: Caltrans understands the importance of coastal access for the public and takes access needs into consideration in the Transportation Management Plan. A draft plan will be provided with the coastal development permit applications. It is anticipated that 250 working days will be required to complete the project, and 175 of those days will require traffic control.

It is typically preferred to work in the summer season (to avoid the rainy season), and construction work in jurisdictional areas is limited by permit conditions to June 1 to October 31. Also, for worker and driver safety, construction will typically be scheduled during the weekdays and occasionally at night. Lane closures are restricted around peak hours of travel during morning and evening commute times as well to lessen traffic caused by construction.

Comment 6: Coastal Access. We further suggest that Caltrans avoid locating construction staging and storage within highway pullouts that are commonly used for public parking and coastal access, particularly during the summer.

Response to Comment 6: Caltrans intends to avoid using public parking areas and coastal access areas during construction and, with that in mind, will determine appropriate staging areas during the design phase. Staging areas will be provided with the coastal development permit applications.

Comment 7: Coastal Access. We would note that the proposed project entails a culvert replacement at PM 20.41, which is immediately adjacent to a number of existing coastal access/bicycle/pedestrian paths, and thus we would encourage Caltrans to consider potential coastal access improvements/ connections at this location. Specifically, the Moore Creek Preserve trailhead is located along the inland side of Highway 1 here, and Schaffer Road connects to an existing bike/pedestrian and Antonelli's Pond on the seaward side of Highway 1 here. There is presently no formalized parking at the Moore Creek trailhead along Highway 1, nor is there a formalized bike/pedestrian crossing at Highway 1 to get from Moore Creek to these other trails/trail networks. Accordingly, we would encourage exploring the feasibility of expanding the proposed project to include such public access enhancements, including to facilitate California Coastal Trail, Active Transportation, and Complete Streets program goals/development at this location.

Response to Comment 7: Caltrans is evaluating the Coastal Commission's suggestions for additional improvements.

# Appendix D Biological Opinion

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## United States Department of the Interior

### U.S. FISH AND WILDLIFE SERVICE

Ecological Services  
Ventura Fish and Wildlife Office  
2493 Portola Road, Suite B  
Ventura, California 93003



IN REPLY REFER TO:  
2022-0031101-S7

October 3, 2022

Larissa Clarke  
California Department of Transportation, District 5  
50 Higuera Street  
San Luis Obispo, California 93401

Subject: Biological Opinion on the Santa Cruz Roadside Safety Project, Santa Cruz  
County, California

Dear Larissa Clarke:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the California Department of Transportation (Caltrans) proposal to restore damaged culverts, improve maintenance worker safety and roadside maintainability, replace lighting elements, and install count stations along State Route (SR) 1 in Santa Cruz County, California from postmile (PM) 9.37 to PM 26.0, and its effects on the federally threatened California red-legged frog (*Rana draytonii*) and its critical habitat, in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.). We received your August 24, 2022, request for formal consultation on August 25, 2022.

You determined that the proposed project meets the criteria for inclusion under the 2011 Caltrans Programmatic Biological Opinion (PBO) for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (8-8-10-F-58) (Service 2011).

We have based this biological opinion on information that accompanied your August 24, 2022, request for consultation including the natural environmental study (NES; Caltrans 2022), additional correspondence between the Service and Caltrans, and information in our records.

### **Programmatic Biological Opinion for California Red-legged Frog**

Under the administration of the PBO (Service 2011), Caltrans is required to notify the Service of project activities that may adversely affect the California red-legged frog and its designated critical habitat. Caltrans has assumed the Federal Highway Administration's (FHWA) responsibilities under the Act for the proposed action in accordance with Section 1313, Surface Transportation Project Delivery Program, of the Moving Ahead for Progress in the 21st Century

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Act (MAP-21) of 2012, as described in the National Environmental Policy Act Assignment Memorandum of Understanding between FHWA and Caltrans (effective October 1, 2012) and codified in 23 U.S.C. 327.

### Project Description

Caltrans proposes to restore 30 culverts, improve 47 roadside safety locations, rehabilitate 32 lighting elements, and install 48 traffic management systems along SR 1 in Santa Cruz County, California from PM 8.2 to PM 26.0. The proposed project activities would occur at culverts, gore areas (a triangular plot of land as designated when a road forks when intersecting a second road, or merges on and off from a larger one), closed circuit television (CCTV) locations, maintenance vehicle pullouts or shoulder widen locations, lighting locations, and counts and loops locations. The culvert repairs would vary depending on site condition per culvert and range from improvement to replacement. Roadside worker safety features would improve or expand the gore paving to allow maintenance vehicles to park in paved gore areas. Signs would be installed beyond the gore paving areas. New traffic census stations would be installed – 6 count stations and 11 census loops in the on/off ramps. Lighting element replacements would vary depending on each site condition and may include demolition or replacement of fixtures and/or foundations, and related excavation for new foundations, service cabinets and utility trenching. Further roadside safety improvements would include widening shoulders at locations where CCTV cameras are proposed. During construction, one side of the freeway would be worked on at a time (i.e., northbound or southbound) and at least one lane would remain open to traffic in each direction. Caltrans expects construction to begin December 2024 and end in December 2026.

The proposed project would require the use of trucks, bulldozers, backhoes, compactors, asphalt concrete rollers, clamshells, excavators, compressors, pavers, water trucks, sweepers, and other equipment necessary for project construction. The proposed project would include vegetation clearing, staging, stock piling, and may include temporary dewatering/diversion of streams. Sensitive areas would be delineated with temporary fencing. Caltrans would conduct limited tree trimming or removal at five culvert/gore area locations.

Caltrans would implement all minimization measures outlined in the PBO (Service 2011, pp. 7-12). Caltrans proposes to restore temporary impacts at a 1:1 ratio (acreage) and proposes to mitigate permanent impacts at a 3:1 ratio (acreage) (Caltrans 2022, pp. 53-54).

### Status of the California Red-legged Frog in the Action Area

We infer that California red-legged frogs are present due to multiple known, documented occurrences within the 2-mile species dispersal distance from the action area and the presence of suitable in-stream aquatic habitat. Caltrans has not conducted Service protocol-level surveys for California red-legged frog in the action area. Jurisdictional drainages within the action area provide suitable non-breeding habitat for the species, and the banks of the creek support vegetation that California red-legged frogs could use as upland refugia. There are three

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documented occurrences within 500 meters of project sites (culverts), dating from 2008, 2016, and 2019 (CNDDDB 2022). There are several other known occurrences of California red-legged frogs near project sites within dispersal distance (CNDDDB 2022).

#### Status of California Red-legged Frog Critical Habitat in the Action Area

Caltrans would implement project activities at 10 sites within California red-legged frog critical habitat unit SCZ-1. The project would have adverse effects to primary constituent elements (PCEs) 2 (aquatic non-breeding), 3 (upland habitat), and 4 (dispersal habitat) for California red-legged frog critical habitat within the action area. Caltrans anticipates 0.014 acre of permanent impacts and 0.318 acre of temporary impacts to California red-legged frog critical habitat.

#### **Conclusion**

You have determined that each of the proposed suite of 30 culverts, 47 roadside safety locations, 32 lighting elements, and 48 traffic management systems, as described in the NES (Caltrans 2022), satisfies the four criteria outlined in the PBO for projects that are likely to result in adverse effects to the California red-legged frog and its critical habitat, but would not affect the long-term viability of those populations or the critical habitat. Project effects of this nature were analyzed in the PBO under the Effects of the Action section (Service 2011, pp. 29-34). You also propose to implement the measures outlined in the PBO (pp. 7-12) for avoiding and minimizing effects to the California red-legged frog and its designated critical habitat. You propose to restore temporary impacts at a 1:1 ratio (acreage) and to mitigate permanent impacts at a 3:1 ratio (acreage), which will compensate for adverse effects to the California red-legged frog by ensuring restoration of its habitat. We concur with your determination that the proposed project may affect, and is likely to adversely affect the California red-legged frog and its designated critical habitat. Furthermore, based on the information you have provided, the proposed project is consistent with, and appropriate for, inclusion under the PBO. With this approval, the project may proceed without further consultation.

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the exemption issued pursuant to section 7(o)(2) may have lapsed and any further take could be a violation of section 4(d) or 9. Consequently, we recommend that any operations causing such take cease pending reinitiation.

Larissa Clarke

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If you have any questions about this biological opinion, please contact Mark Elvin of my staff by electronic mail at [mark\\_elvin@fws.gov](mailto:mark_elvin@fws.gov).

Sincerely,

**LEILANI**  
**TAKANO**

Digitally signed by  
LEILANI TAKANO  
Date: 2022.10.03  
10:45:40 -07'00'

Leilani Takano  
Assistant Field Supervisor

## **List of Technical Studies Bound Separately**

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

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

Lucas Marsalek  
Acting Environmental Branch Chief  
California Department of Transportation, District 5  
50 Higuera Street  
San Luis Obispo, CA 93401

Or send your request via email to: [lucas.marsalek@dot.ca.gov](mailto:lucas.marsalek@dot.ca.gov)

Please provide the following information in your request:

Santa Cruz 1 Roadside Safety and Drainage System Improvements Project  
05-SCR-1-8.2/26.0  
05-1J960/0518000093