

Santa Cruz Route 1 Drainage Improvement Project

On State Route 1 from post miles 0.0 to 7.94 in Santa Cruz County, and from post mile 101.50 in Monterey County to post mile 7.94 in Santa Cruz County

05-SCR-01-0.00/7.94 and 05-MON-01-101.50/102.00

Project EA: 05-1K640/Project ID: 0519000239

Initial Study with Proposed Mitigated Negative Declaration

Volume 1 of 2



Prepared by the
State of California Department of Transportation

June 2022



General Information About This Document

What's in this document:

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

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans District 5 office at 50 Higuera Street, San Luis Obispo, California 93401.
- Tell us what you think. If you have any comments regarding the proposed project, please request a virtual public meeting, and/or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Lara Bertaina, District 5 Environmental Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 93401. Submit comments via email to: lara.bertaina@dot.ca.gov.
- Submit comments by the deadline: July 30, 2022.

What happens next:

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

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

Repair and replace existing culverts on State Route 1 from post mile 0.0 to post mile 7.94 in Santa Cruz County, and improve roadway lighting, traffic monitoring, and maintenance access on State Route 1 from post mile 101.50 in Monterey County to post mile 7.94 in Santa Cruz County

**INITIAL STUDY
with Proposed Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agency: California Transportation Commission

Mitch Dallas for

John Luchetta

California Department of Transportation
CEQA Lead Agency

6/24/22

Date

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DRAFT

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: Pending

District-County-Route-Post Mile: 05-SCR-01-0.00/7.94 and 05-MON-01-101.50/102.00

EA/Project Number: 05-1K640/0519000239

Project Description

The California Department of Transportation (Caltrans) proposes to improve existing drainage systems and culverts on State Route 1 in Santa Cruz County from post mile 0.0 to post mile 7.94. The project would repair or replace drainage systems at several locations where drainage structures already exist. The project would also improve roadway lighting, traffic monitoring, and maintenance access on State Route 1 from post mile 101.50 in Monterey County to post mile 7.94 in Santa Cruz County. Project activities would include vegetation clearing, vegetation replanting, temporary construction activities, temporary staging sites, temporary traffic control, pavement repaving, and pavement restriping. Within the project limits, State Route 1 is a conventional freeway with two lanes of travel in each direction. State Route 1 is a major north-south route that runs along most of California's coastline.

Determination

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

- Avoidance, minimization and mitigation measures are included to protect nesting birds, the California red-legged frog, the Santa Cruz tarplant, and their associated habitats. The measures would ensure that no adverse impacts to biological resources from the project would occur.
- The potential for visual impacts would be reduced with implementation of visual minimization measures. The measures would ensure that the project would be consistent with the aesthetic and visual protection goals for State Route 1.
- Temporary impacts associated with construction affecting water quality, air quality, greenhouse gas emissions, and wildland fires would not have significant effects due to the use of avoidance and minimization measures, construction Best Management Practices and Standard Measures included in all projects.

Tim Gubbins
District 5 Director
California Department of Transportation

Date

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Chapter 1 **Proposed Project**

1.1 Introduction

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

Caltrans proposes to improve existing drainage structures, add traffic lighting, add traffic monitoring systems, and add maintenance vehicle pullouts on State Route 1. Project activities would occur on State Route 1 between post mile 0.0 and post mile 7.94 in Santa Cruz County, and between post mile 101.5 and post mile 102.0 in Monterey County. The project limits are roughly between Trafton Road in Monterey County and Larkin Valley Road in Santa Cruz County. The project limits are within the Coastal Zone, and State Route 1 acts as the Coastal Zone boundary. State Route 1 is a conventional four-lane freeway, with two lanes of travel in each direction. Figure 1-1 shows the project vicinity, and Figure 1-2 shows the locations where improvements are proposed.

The project is included in the 2022 State Highway Operational Protection Program under the Asset Management guidelines to meet culvert goals. Other elements such as traffic monitoring systems and electrical work were assessed throughout the project limits and added to the project as feasible. Project construction is slated to start in 2024 and span approximately one year. Current programmed cost for the construction of the Build Alternative is \$15,554,000.

1.2 Purpose and Need

1.2.1 Purpose

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

- Restore damaged culverts in poor condition to maintain and improve the drainage systems and protect embankments and the roadway from potential failure.
- Upgrade existing count stations to meet current standards and extend service life. Also, install new changeable message signs to maintain an efficient Intelligent Transportation System and convey adequate traffic information to the traveling public.

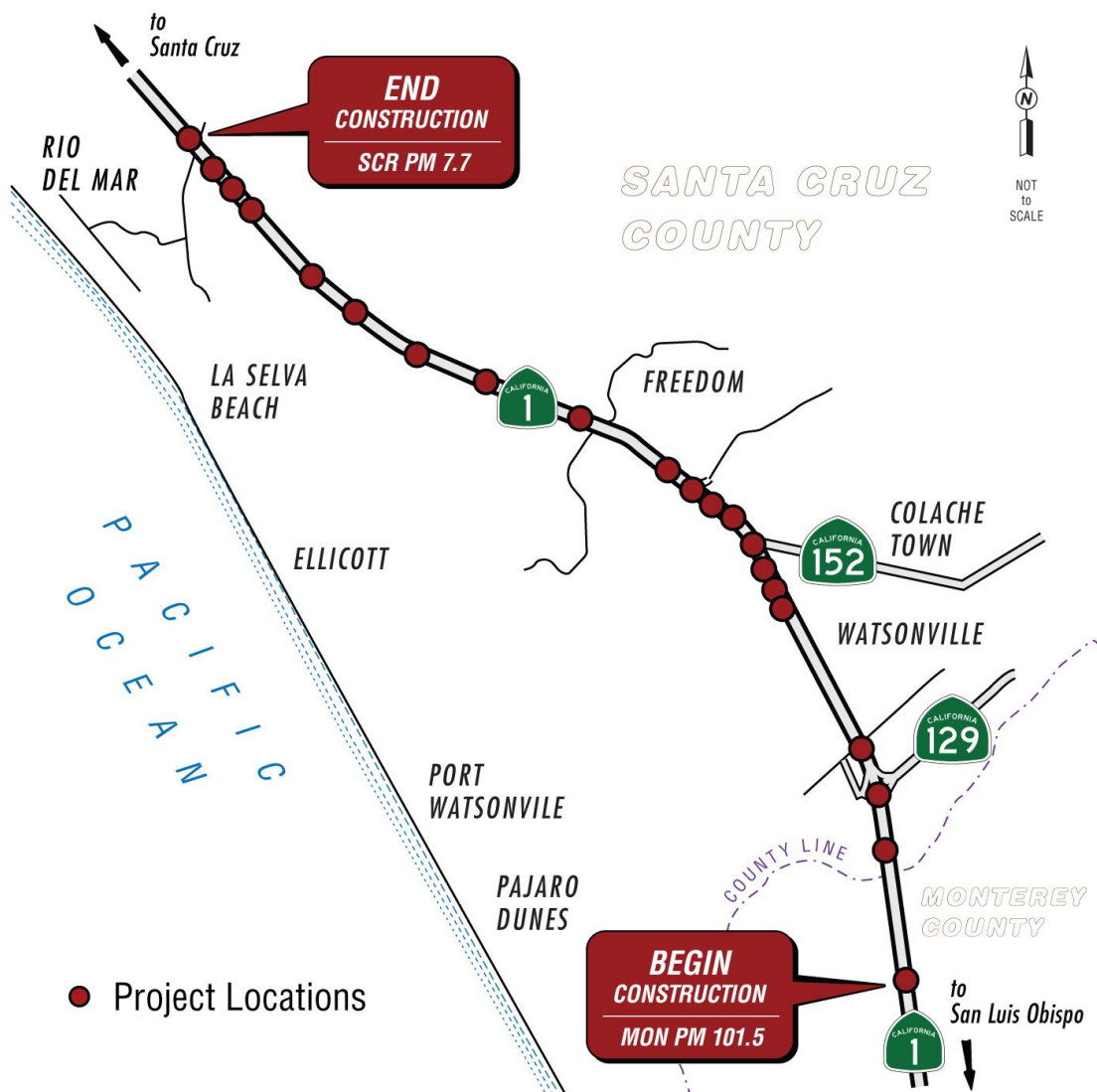
1.2.2 Need

A culvert inventory assessment performed in 2008 identified culverts within the project limits that are in various states of disrepair. Culverts that have been identified in poor condition show varying degrees of damage caused by corrosion, deformation, perforation, damaged inverts, shape loss, joint separation, undermined backfill, and overall deterioration. If the identified culverts are not repaired or replaced, the highway structure may be compromised, leading to the failure or damage of the roadway. Improving roadway lighting, traffic monitoring, and maintenance access would help reduce motorists' and maintenance crews' exposures to hazardous roadway conditions. The existing traffic data collection stations are outdated, and a changeable message sign would allow for better communication along the corridor.

Figure 1-1 Project Vicinity Map



Figure 1-2 Project Location Map



1.3 Project Description

Tables 1.1, 1.2 and 1.3 show the proposed project work, work locations, and the corresponding area of direct impact. In the first column of the tables, SCR stands for Santa Cruz County and MON stands for Monterey County.

Table 1.1 Proposed Culvert Repairs

Location (County- Highway)	Post Mile	Proposed Work	Area of Direct Impact (Square Feet)
SCR-1	R0.33	Cut and cover median culvert repair of one segment	23,606
SCR-1	R0.63	Cut and cover joint repair of one segment	3,412
SCR-1	R2.24	Cut and cover joint repair of one segment	9,566
SCR-1	R2.68	Replace two segments using jack and bore methods	16,700
SCR-1	R2.75	Replace one segment using cut and cover methods	6,976
SCR-1	R2.83	Replace one segment using cut and cover methods	4,460
SCR-1	R3.22	Jack and bore repair of three segments	12,222
SCR-1	R6.01	Replace one segment using cut and cover methods	1,537
SCR-1	R6.90	Cut and cover joint repair of one segment	2,829
SCR-1	R6.99	Replace one segment using cut and cover methods	7,698
SCR-1	R7.13	Replace three segments using cut and cover methods	60,263
SCR-1	R7.3	Replace one segment using cut and cover methods	8,755
SCR-1	R7.66	Replace one segment using cut and cover methods	6,291

Table 1.2 Proposed Electrical Work

Location (County- Highway)	Post Mile	Proposed Work	Area of Direct Impact (Square Feet)
MON-1	R101.53	Trenching; Install closed-circuit television	17,653
MON-1	R101.53	Install motor vehicle data system	600
MON-1	R101.54	Install changeable message sign	600
SCR-1	R0.38	Remove luminaire	2,159
SCR-1	R0.42	Install luminaire	2,400
SCR-1	R0.47	Install luminaire	600
SCR-1	R0.48	Install loop detector	1,425
SCR-1	R0.48	Install loop detector	1,872
SCR-1	R0.61	Install loop detector	2,043
SCR-1	R0.63	Install loop detector	785
SCR-1	R0.75	Install loop detector	1,953
SCR-1	R0.8	Install loop detector	2,090
SCR-1	R0.8	Install loop detector	1,638
SCR-1	R0.92	Install luminaire	2,400
SCR-1	R1.01	Remove luminaire	2,400
SCR-1	R2.19	Install loop detector	1,740
SCR-1	R2.22	Install loop detector	1,759
SCR-1	R3.02	Install loop detector and electrical cabinet	400
SCR-1	R3.02	Install loop detector	1,154
SCR-1	R3.02	Install loop detector	829
SCR-1	R3.05	Remove electrical cabinet	1,102
SCR-1	R3.12	Install luminaire	2,400
SCR-1	R3.13	Install luminaire	2,400
SCR-1	R3.14	Install luminaire and trenching for electrical	5,891
SCR-1	R3.19	Install loop detector	196
SCR-1	R3.38	Install loop detector	240
SCR-1	R3.97	Install loop detector	231
SCR-1	R4.01	Install loop detector	847
SCR-1	R6.51	Install loop detector	150
SCR-1	R6.8	Install loop detector	400
SCR-1	R7.6	Install loop detector	600
SCR-1	R7.75	Install loop detector	200
SCR-1	R7.79	Install loop detector	328

Table 1.3 Proposed Paving

Location (County- Highway)	Post Mile	Proposed Work	Area of Direct Impact (Square Feet)
SCR-1	R3.25	Install maintenance vehicle pullout	9,057
SCR-1	R3.25	Install maintenance vehicle pullout	5,738
SCR-1	R3.4	Install maintenance vehicle pullout	7,457
SCR-1	R3.4	Install maintenance vehicle pullout	8,030
SCR-1	R6.75	Install maintenance vehicle pullout	3,042
SCR-1	R6.8	Install maintenance vehicle pullout	1,790

Culvert Improvements

Culvert work would occur in Santa Cruz County between post mile 0.0 and post mile 7.94 on State Route 1. Multiple culvert structures within the project limits are in various states of disrepair and if not addressed could lead to failure or damage of the roadway on State Route 1. The project would repair or replace culverts that have deteriorated due to age. The project would not construct new culverts at new locations.

There are 18 culvert segments within the project limits at 13 different post mile locations. Some post mile locations contain multiple culvert segments. The project would replace 11 culvert segments and repair 7 culvert segments. Culvert sizes vary from 24 inches to 36 inches in diameter, and culvert lengths vary from 15 feet to 500 feet long.

Culvert repairs would involve mostly joint repair and installation of lining inside existing pipes, but other culvert repairs deemed necessary could be done. Culvert replacement would involve either a cut and cover method or trenchless method. The existing culvert location and the surrounding site conditions will determine which culvert replacement method would be implemented at each culvert location. The cut and cover method involves digging a trench with an excavator to expose the existing culvert for repair or replacement. The trench width depends on the pipe diameter, and the depth and slope are determined by the engineer. The trenchless method includes the pipe jack method, which is accomplished by placing a sending pit on one side of the culvert, and a receiving pit on the other side. Drilling equipment is then used to drill out the existing culvert while pushing a new pipe through horizontally without disturbing the surface above.

The existing culverts sit within the Caltrans right-of-way. However, it is anticipated that some culvert replacement and repair activities would need to occur outside of the Caltrans right-of-way. Culvert replacement and repair work would require: the use of construction equipment, temporary construction easements, temporary access routes, temporary staging sites, pavement work, temporary traffic control, vegetation clearing, and vegetation

restoration. Project construction would do culvert work one location at a time to minimize traffic disruptions.

Traffic Monitoring Systems

Traffic monitoring system work would occur in Santa Cruz County between post mile 0.0 and post mile 7.94 and in Monterey County between post mile 101.5 and post mile 102.0 on State Route 1. To help improve collection of information for traffic monitoring, the project would install several new traffic detection loops. The traffic detection loops would be installed at 19 new locations. In addition, two existing traffic count stations would be relocated and placed behind existing guardrails. A new changeable message sign would also be installed to provide information to the traveling public. The new changeable message sign would be installed at post mile 101.53 in Monterey County, near Trafton Road. All new traffic monitoring systems would be installed within the existing Caltrans right-of-way, and it is anticipated that all related construction activities would occur within the existing Caltrans right-of-way. Project construction would install new traffic monitoring elements one location at a time to minimize traffic disruptions. Installation of new traffic monitoring elements would require: the use of construction equipment, temporary staging sites, pavement work, temporary traffic control, trenching, vegetation clearing and vegetation restoration.

Electrical Work

Electrical work would occur in Santa Cruz County between post mile 0.0 and post mile 7.94 on State Route 1. The project would install highway lighting at six new locations. The project would remove two existing highway luminaires. It is anticipated that the proposed electrical work would occur without considerable disturbance to the traveling public. All new electrical installations would occur within the existing Caltrans right-of-way, and it is anticipated that all electrical-related work would occur within the existing Caltrans right-of-way. Electrical work would require: the use of construction equipment, temporary staging sites, temporary traffic control, trenching.

Maintenance Vehicle Pullouts

Six new maintenance vehicle pullouts would be installed in Santa Cruz County on State Route 1. Four of the new maintenance vehicle pullouts would be installed at each of the on-ramps and off-ramps on Airport Boulevard. Beyond-the-gore paving would also be installed at the on-ramp and off-ramp at Airport Boulevard. Two of the new maintenance vehicle pullouts would be installed at the northbound on-ramp at Mar Monte Avenue and at the southbound shoulder of State Route 1. The new maintenance vehicle pullouts would be installed within the existing Caltrans right-of-way, and all related work would occur within the existing Caltrans right-of-way. Work on the new maintenance vehicle pullouts would occur one location at a time to minimize traffic disturbances. Completion of each new maintenance vehicle pullout

would require: the use of construction equipment, temporary staging sites, and temporary traffic control.

1.4 Project Alternatives

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

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

1.4.1 Build Alternative

Under the Build Alternative, the project would result in temporary and permanent impacts to environmental resources. Temporary impacts would result from the various construction activities required to complete the project. Permanent impacts would result from the new highway features and elements that would be constructed.

The Build Alternative would meet the purpose and need of the project by addressing the repair issues of the existing culverts, while also providing additional improvements to roadway lighting, traffic monitoring, and maintenance access. The work would be done in stages, with construction occurring over a period of about one year.

Culvert Improvements

The Build Alternative would replace and repair existing culverts. Culverts segments would be replaced with new culverts of increased diameter and new materials. The repairs would fix existing culverts without altering existing culvert dimensions. No new culvert segments or structures would be installed at new locations.

Traffic Monitoring Systems

The Build Alternative would install a new overhead changeable message sign at a new location, in addition to installing several traffic monitoring system elements, including traffic detection loops and control boxes. All new traffic monitoring elements would meet current Caltrans design standards.

Electrical Work

The Build Alternative would install new roadway luminaires and remove existing roadway luminaires. All new electrical elements would meet current Caltrans design standards.

Maintenance Vehicle Pullouts

The Build Alternative would add maintenance vehicle pullouts along the route. All new maintenance vehicle pullouts would meet current Caltrans design standards.

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

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, State Route 1 would stay as it is within the project limits. The work proposed in this project would not be done. The No-Build Alternative would not address the purpose and need of the project. The condition of the culverts and drainage systems would continue to deteriorate, which could lead to potential degradation of the roadway. Also, the No-Build Alternative would not improve existing roadway lighting, traffic monitoring capabilities or maintenance access, but routine maintenance would continue.

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

This project includes a list of Caltrans standard measures that are typically used on all Caltrans projects. Caltrans standard measures are considered features of the project and are evaluated as part of the project. Caltrans standard measures are not implemented to address any specific effects, impacts, or circumstances associated with the project, but are instead implemented as part of the project’s design to address common issues encountered on project. Caltrans standard measures allow for little discretion regarding their implementation, just as other Caltrans standards requirements. The measures listed here are those related to environmental resources and are applicable to the project. These measures can be found in Caltrans 2018 Standard Specifications document.

- 7-1 Legal Relations and Responsibility to the Public
- 10-4 Water Usage
- 10-5 Dust Control
- 10-6 Watering
- 12-1 Temporary Traffic Control
- 12-3 Temporary Traffic Control Devices

- 12-4 Traffic Control Systems
- 13-1 Water Pollution Control
- 13-2 Water Pollution Control Program
- 13-3 Stormwater Pollution Prevention Plan
- 13-4 Job Site Management
- 13-6 Temporary Sediment Control
- 13-7 Temporary Tracking Control
- 13-10 Temporary Linear Sediment Barriers
- 14-1 Environmental Stewardship
- 14-2 Cultural Resources
- 14-6 Biological Resources
- 14-8 Noise and Vibration
- 14-9 Air Quality
- 14-10 Solid Waste Disposal and Recycling
- 14-11 Hazardous Waste and Contamination
- 14-12 Other Agency Regulatory Requirements
- 17-2 Clearing and Grubbing
- 18-1 Dust Palliatives
- 20-1 Landscape
- 20-3 Planting
- 20-4 Plant Establishment Work
- 21-2 Erosion Control Work
- 36-4 Residue Containing Lead from Paint and Thermoplastics
- 84-9 Removing Existing Marking

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

1.6 Discussion of the NEPA Categorical Exclusion

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

1.7 Permits and Approvals Needed

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

Agency	Permit/Approval	Status
Santa Cruz County	Coastal Development Permit	Will be obtained prior to project construction

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

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

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

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

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated June 22, 2021, 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?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No impact

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

Affected Environment

The landform of the region is characterized as a valley floor surrounded by mostly agricultural uses, with distant views of the hills to the north. Though the Pacific Ocean is not visible from the project area, the visual character of the region is influenced by its proximity to coastal resources and natural areas. State Route 1 within the project limits passes through a variety of plant communities and vegetative types. Creeks and drainages hold stands of sycamore, cottonwood, and willows. Oaks, pines, and other native trees are found closer to the roadside in the northern portion of the project limits. Occasional stands of eucalyptus trees occur within the project limits. The highway structure and its related features, occasional roadside homes sites, and business complexes are the main signs of development within the project limits. In general, built amenities in the project area do not dominate the visual character of the landscape.

Environmental Consequences

The new paved surfaces and traffic monitoring systems, including the changeable message sign, would be the most visually noticeable aspect of the project. While these new project features would not be out of place for the area, they would contribute to the increased visual scale of the highway facility. Although most project elements would not be uncharacteristic for the existing visual setting, viewer sensitivity of the area may be heightened because of the project's location within the Coastal Zone. The project would be consistent with the aesthetic and visual protection goals for State Route 1 and will include measures to minimize the noticeability of new highway features.

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:

VIS 1: Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible shall be employed.

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

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

VIS 4: Paving beyond the gore shall include aesthetic treatments to be determined and approved by District 5 Landscape Architect.

VIS 5: Traffic monitoring systems elements shall be aesthetically treated, such as painting, and will be determined and approved by the District 5 Landscape Architect.

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

VIS 7: All streetlights shall be directed downward and shall include cut-off lens fixtures such that no point source lighting is visible from adjacent parcels.

VIS 8: Following construction, re-grade, and re-contour all construction staging areas and any other temporary use areas as necessary to match the surrounding pre-project topography.

2.1.2 Agriculture and Forest Resources

Based on the Santa Cruz County Planning Department Geographic Information Systems online tool, segments of the project limits are adjacent to properties zoned for agricultural uses. Although agricultural properties are found next to State Route 1, the project is not anticipated to affect adjacent agricultural properties or affect the existing functions of adjacent agricultural properties. No prime farmland exists within the project limits, and no parcels

are held by a Williamson Act contract. Based on the Cal Fire Hub online tool, no timber operations are identified in proximity of the project limits.

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

2.1.3 Air Quality

Considering the information in the Air Quality, Greenhouse Gas and Noise Assessment Memo dated November 18, 2021, the following significance determinations have been made:

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

Question—Would the project:	CEQA Significance Determinations for Air Quality
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact

Affected Environment

Within the project limits, State Route 1 crosses through a partially urbanized environment, with a mix of developed, agricultural, and open spaces.

Santa Cruz County is within the North Central Coast Air Basin. The Monterey Bay Air Resources District regulates the air quality in the North Central Coast Air Basin. Santa Cruz County is in non-attainment for state ambient air quality standards for ozone and non-attainment for airborne particulates less than 10 microns in diameter. Santa Cruz County is in attainment for all federal ambient air quality standards.

Environmental Consequences

The project would not result in long-term impacts to air quality because the project would not alter the existing capacity of State Route 1.

Temporary construction-related activities are expected to generate aerial pollutants, emissions and/or odors that can be noticeable or cause inconveniences to sensitive receptors and/or people in proximity of the work site. It is anticipated that temporary construction activities and temporary operation of construction equipment would be the main contributor to the increase in aerial pollutants, emissions and/or odors. Based on the relatively small scale of project activities at each work site, temporary construction-related activities are anticipated to generate minor amounts of dust, aerial pollutants, odors, and/or disturbances to sensitive receptors. In addition, the project would include Caltrans standard measures associated with minimizing impacts to air quality. The project is expected to help reduce future vehicle and equipment emissions by reducing the frequency of preventive and scheduled maintenance operations on the culverts.

Avoidance, Minimization, and/or Mitigation Measures

The potential for air quality impacts generated by project construction would be minimized with the implementation of the following measure:

AIR 1: All applicable Caltrans standard measures and strategies for Air Quality, Emissions Reductions, Air Pollution Control, Dust Control and Dust Palliative will be implemented during project construction.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated April 15, 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic Atmospheric Administration Fisheries?	Less Than Significant Impact with Mitigation
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less Than Significant with Mitigation
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less Than Significant Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less Than Significant Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Biological Resources
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

Affected Environment

The Natural Environment Study establishes a Biological Study Area for the project. The Biological Study Area is the area investigated for biological resources and includes areas that may be directly, indirectly, temporarily, or permanently impacted by project construction and construction-related activities. The Biological Study Area also includes some adjoining habitats to ensure adequate area has been investigated for potential impacts as a result of the project. For this project, the Biological Study Area is the overall project footprint, which includes each separate culvert work site, electrical installations, paving locations and staging/access areas that are proposed along the 8.4-mile stretch of State Route 1 within the project limits. There are 52 separate project work sites within the Biological Study Area.

The Biological Study Area occurs along State Route 1 along the Santa Cruz coast, from post mile R101.5 in Monterey County to post mile R7.9 in Santa Cruz County. The Biological Study Area is situated amongst coastal terraces, sloughs, and steep hillsides. Several watersheds cross the Biological Study Area, and most of the associated streams and drainages connect with the Pacific Ocean. No tidally influenced or brackish areas are present within the Biological Study Area.

The Biological Study Area is confined to areas within or immediately adjacent to highway facilities and consists mostly of urban developed areas and ruderal (weedy) habitats. Land use types in the Biological Study Area are a mix of agricultural, business, residential and open space areas.

Queries and official species lists were used to develop a list of special-status species and 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 in February, April, May, June, August, September, and October 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.

Natural Communities

Natural communities identified within the Biological Study Area include coast live oak woodlands, willow woodlands, coastal scrub, and ruderal communities.

Coast live oak woodlands are dominated by coast live oaks, which grow in varying densities and occur in scattered pockets throughout the Biological Study Area right next to the highway. Approximately 0.32 acre is found within the Biological Study Area.

Willow woodlands are a riparian community often found near water, with a mix of willow tree varieties being the common dominant plant. Approximately 0.51 acre is found within the Biological Study Area.

Coastal scrub communities within the Biological Study Area are dominated by poison oak, coyote brush and poison hemlock. Approximately 0.07 acre is found within the Biological Study Area.

Ruderal communities are often found in areas regularly disturbed by maintenance activities, residential landscaping, or other human activities. Ruderal communities are dominated by weedy plants that are often non-native. Approximately 3.43 acres are found within the Biological Study Area.

As proposed, the project would not impact jurisdictional areas. No jurisdictional waters, wetlands or riparian areas exist within the project footprint, so no Clean Water Act Section 404/401 or California Fish and Game Code Section 1602 permits would be required for the project; therefore, jurisdictional areas will not be discussed any further.

Mitigation and Travel Corridors

The project is not within a core habitat area or within a key migratory pathway for regional wildlife. Wildlife connectivity is very limited throughout the Biological Study Area due to the urban and residential land uses and the presence of the highway facility. The culverts involved in this project are considered too small to provide any significant opportunities for wildlife movement under the highway.

Designated Critical Habitat

Critical habitat for the Santa Cruz tarplant (*Holocarpha macradenia*) is found at four locations within the Biological Study Area—near post miles 3.12, 3.24, 3.28, and 3.40. These four locations are within the federally designated Santa Cruz tarplant Critical Habitat Unit I – Watsonville, which covers approximately 1,205 acres. The locations consist of grasslands on alluvial fans and marine terraces west of the City of Watsonville in Santa Cruz County.

Critical habitat for the California red-legged frog (*Rana draytonii*) is found at six locations within the Biological Study Area—near post miles 2.22, 3.25, 3.40, 5.10, 5.28, and 7.18. These six locations are within the federal designated California red-legged frog Critical Habitat Unit 2 – Santa Cruz County, which covers approximately 4,057 acres. The designated critical habitat includes the Watsonville Slough System, portions of the Corralitos Lagoon, and the mouth of the Pajaro River watersheds.

Invasive Species

A total of 43 invasive plant species were found within the Biological Study Area. Of these, 7 have an invasive rating of “high,” 20 have an invasive rating of “moderate,” and 16 have an invasive rating of “limited” based on the California Invasive Plant Council Database. The distribution of most invasive plant species is sparsely scattered throughout the Biological Study Area and most commonly located in ruderal/disturbed areas along the edges of the highway facility.

Regional Plant Species of Concern

Within the project area are 18 documented special-status plant species that include federal and state listed plants. Twelve of these special-status plant species are not expected to occur within the Biological Study Area due to a lack of potential habitat; therefore, they are not discussed any further in this document.

The remaining six federal and state listed special-status plant species that have potential habitat present within the Biological Study Area were not detected during appropriately timed surveys. These special-status plant species are not expected to be affected by the project and are not discussed further in this document: marsh sandwort (*Arenaria paludicola*), robust spineflower (*Chorizanthe robusta* var. *robusta*), seaside bird’s beak (*Cordylanthus rigidus* ssp. *littoralis*), Kellogg’s horkelia (*Horkelia cuneata* var. *sericea*), and Choris’ popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*).

Regional Animal Species of Concern

Within the project area are 37 documented special-status animal species that include federally and state listed species. Table 2.1 shows the 32 federal and state listed special-status animal species that are not expected to be encountered within the Biological Study Area due to lack of potential habitat. They are not expected to occur within the project area; therefore, they are not discussed any further in this document.

Table 2.1 Federal and State Listed Special-Status Animal Species Not Expected to Occur Within the Project Area

Common Name	Scientific Name
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>
Globose dune beetle	<i>Coelus globosus</i>
Tidewater goby	<i>Eucyclogobius newberryi</i>
Monterey hitch	<i>Lavinia exilicauda harengus</i>
Central California Coast steelhead	<i>Oncorhynchus mykiss irideus population 8</i>
South-Central California Coast steelhead	<i>Oncorhynchus mykiss irideus population 9</i>
Longfin smelt	<i>Spirinchus thaleichthys</i>
Foothill yellow-legged frog	<i>Rana boylei</i>
California tiger salamander	<i>Ambystoma californiense</i>
Santa Cruz long-toed salamander	<i>Ambystoma macrodactylum croceum</i>
Santa Cruz black salamander	<i>Aneides niger</i>
California giant salamander	<i>Dicamptodon ensatus</i>
Legless lizard	<i>Anniella pulchra</i>
San Francisco garter snake	<i>Thamnophis sirtalis tetrataenia</i>
Western pond turtle	<i>Emys marmorata</i>
Copper's hawk	<i>Accipiter cooperii</i>
Tricolored blackbird	<i>Agelaius tricolor</i>
Short-eared owl	<i>Asio flammeus</i>
Burrowing owl	<i>Athene cunicularia</i>
Marbled murrelet	<i>Brachyramphus marmoratus</i>
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>
Southwestern willow flycatcher	<i>Empidonax traillii eximius</i>
American peregrine falcon	<i>Falco peregrinus anatum</i>
Bank swallow	<i>Riparia riparia</i>
California least tern	<i>Sternula antillarum browni</i>
California clapper rail	<i>Rallus longirostris obsoletus</i>
Least Bell's vireo	<i>Vireo bellii pusillus</i>
Santa Cruz kangaroo rat	<i>Dipodomys venustus venustus</i>
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>
Salinas harvest mouse	<i>Reithrodontomys megalotis distichlis</i>
Monterey shrew	<i>Sorex ornatus salaries</i>
American badger	<i>Taxidea taxus</i>

In addition, other marine or anadromous fish, other marine animals and other nesting birds that are federally or state listed are also not expected to be encountered within the Biological Study Area.

Three federal and state listed special-status animal species have potential habitat present within the Biological Study Area but were not detected during appropriately timed surveys. These special-status animal species are not expected to occur within the project area and are not expected to be affected by the project, so they are not discussed any further in this document: obscure bumble bee (*Bombus caliginosus*), Crotch bumble bee (*Bombus crotchii*), and western bumble bee (*Bombus occidentalis*).

Two federal and state listed special-status animal species have potential habitat present within the Biological Study Area but were not detected during appropriately timed surveys. However, these special-status animal species have the potential to occur within the project area and could potentially be

affected by the project: monarch butterfly—California overwintering population (*Danaus plexippus* pop. 1) and California red-legged frog (*Rana draytonii*).

Monarch Butterfly

The monarch butterfly is included in the California Natural Diversity Database Special Animal List. The western monarch butterfly population migrates to overwintering sites along the California coast. Potential overwintering sites are often present between Mendocino County and Baja California. Typical migrating season occurs from September to November. The Biological Study Area is within the known range of overwintering monarch butterfly populations, and marginally suitable habitat is present at the northern end of the project limits. However, the California Natural Diversity Database shows no occurrence records of the species within 2 miles of the Biological Study Area.

California Red-Legged Frog

The California red-legged frog is federally threatened and considered a species of special concern by the California Department of Fish and Wildlife. This frog historically ranged from Marin County southward to northern Baja California. Currently, Monterey, San Luis Obispo, and Santa Barbara counties support the largest remaining California red-legged frog populations in California. No protocol surveys were conducted for the California red-legged frog, and the species was not seen during biological reconnaissance surveys. There are known occurrence records for the California red-legged frog within 1 mile of the Biological Study Area, and the presence of the species in the Biological Study Area is inferred.

Least Bell's Vireo, Southwestern Willow Flycatcher and Other Nesting Birds

Nesting bird species are addressed here as a group because they have similar habitat requirements, project-related impacts, and project measures.

The least Bell's vireo is a federal and state endangered species. Federal critical habitat has been designated for the species, but not within the Biological Study Area. Historically, the least Bell's vireo was a common to locally abundant species in lowland riparian habitat, ranging from coastal Southern California through the Sacramento and San Joaquin valleys. The least Bell's vireo is typically found in a variety of riparian habitats.

The southwestern willow flycatcher is a federal and state endangered species. Federal critical habitat has been designated for the species but not within the Biological Study Area. The historical range of the southwestern willow flycatcher included Southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, southwestern Colorado, and extreme northwestern Mexico. The current range is similar to the historical range, but the quantity of suitable habitat is heavily reduced from historical levels. The southwestern willow flycatcher typically inhabits areas of dense vegetation, interspersed with small openings and open water.

Numerous other nesting bird species protected under the federal Migratory Bird Treaty Act and California Fish and Game Code Section 3503 have the potential to nest in habitats found within the Biological Study Area.

Environmental Consequences

Natural Communities

The project would result in permanent and temporary impacts to the following natural communities found within the Biological Study Area: coast live oak woodland, willow woodland, coastal scrub, and ruderal communities.

Permanent impacts would result from the paving of maintenance vehicle pullouts, and installation of new electrical boxes and signs. Permanent impacts would affect only ruderal communities and disturb approximately 0.76 acre.

Temporary impacts would result from vegetation clearing, staging areas, storage areas, temporary construction access, and the jacking and receiving pits for culvert installation. Temporary impacts would also be the result of construction-related activities such as the operation of construction equipment and construction worker traffic. Equipment and materials storage sites would be temporarily located along ruderal and previously disturbed areas within the project limits.

The project would temporarily affect approximately 2.66 acres of ruderal communities, approximately 0.32 acre of coast live oak woodland, approximately 0.51 acre of willow woodland, and approximately 0.07 acre of coastal scrub within the project limits. Tree removal permits per Santa Cruz County Code Section 16.34.030 will not be required under 16.34.090 Exemptions (C) *Any tree removal authorized pursuant to a valid discretionary permit approved pursuant to ...Chapter 13.20 (Coastal Zone Regulations)* because all vegetation clearing would be authorized through the Coastal Development Permit issued by the County of Santa Cruz. The project is not anticipated to significantly affect natural communities, and no further considerations or specific measures are required.

Designated Critical Habitat

Santa Cruz Tarplant Critical Habitat

The project would result in approximately 0.29 acre of permanent impacts and approximately 0.08 acre of temporary impacts to Santa Cruz tarplant critical habitat within the Biological Study Area. The Federal Endangered Species Act Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, Santa Cruz tarplant critical habitat. The basis for this determination is that the project is within the Santa Cruz tarplant Critical Habitat Unit I-Watsonville and present are key physical conditions that have the potential to support the critical habitat within the Biological Study Area.

California Red-legged Frog Critical Habitat

The project would result in approximately 0.06 acre of permanent impacts and approximately 0.20 acre of temporary impacts for California red-legged frog critical habitat within the Biological Study Area. The Federal Endangered Species Act Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, California red-legged frog critical habitat. The basis for this determination is that the project is within the California red-legged frog Critical Habitat Unit 2 – Santa Cruz County and present are key physical conditions that have the potential to support the critical habitat within the Biological Study Area.

Invasive Species

Ground disturbance and other construction-related activities associated with the project could potentially spread or introduce invasive species within the Biological Study Area. The project will include avoidance and minimization measures that would help reduce the spread or introduction of invasive species within the areas disturbed by the project.

Regional Plant Species of Concern

The project is not expected to impact any special-status plant species. Although the Biological Study Area has the potential to support habitats for several special-status plant species, these habitats are mostly marginal. Also, special-status plant species were not found during appropriately timed surveys, and none are expected to occur within the Biological Study Area.

Of the federally listed plant species for the region, the Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on marsh sandwort, Monterey spineflower, yobust spineflower, Menzies' wallflower, Monterey gilia, and Yadon's rein orchid.

No project-specific measures are anticipated for regional plant species of concern.

Regional Animal Species of Concern

Of the federally listed animal species for the region, the Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on the vernal pool fairy shrimp, tidewater goby, steelhead – Central California Coast distinct population, steelhead – South-Central California Coast distinct population, longfin smelt, California tiger salamander, Santa Cruz long-toed salamander, monarch butterfly, San Francisco garter snake, marbled murrelet, western snowy plover, southwestern willow flycatcher, American peregrine falcon, California least tern, California clapper rail, least Bell's vireo, and San Joaquin kit fox. There would be no impacts to federally designated critical habitats for any of these federally listed animal species.

California Red-Legged Frog

Project activities have the potential to either directly or indirectly result in the injury or death of California red-legged frogs if they are present in the upland and aquatic habitats within the project area. The potential need to capture and relocate California red-legged frogs found in work sites would subject these animals to stresses that could result in adverse effects, injury, or death. Any California red-legged frogs that may be present within the work site could accidentally be injured or killed as a result of construction operations. Construction-related impacts to individual species is anticipated to be low due to the lack of observed species within the Biological Study Area. However, the presence of individual species could change over time as the species increases its population or expands its range.

The Federal Endangered Species Act Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, the California red-legged frog and its critical habitat. The basis of this determination is that the California red-legged frog has been inferred in the upland and aquatic habitat within the Biological Study Area, there is the potential for take of the species during project construction, and most of the project footprint lies within the Critical Habitat Unit 2 – Santa Cruz County for the California red-legged frog.

Nesting Birds

Removal of vegetation could directly impact active bird nests and any eggs or young residing in the nest. Indirect impacts could also result from noise and disturbance associated with construction, which could alter perching, foraging, and/or nesting behaviors. Any nesting birds present within 500 feet of work sites could be disturbed by construction activities and operations.

Avoidance, Minimization, and/or Mitigation Measures

Federally Designated Critical Habitat

Numerous measures outlined in this section that apply to the California red-legged frog, nesting birds, and invasive species are also applicable to federally designated critical habitat. These measures have been assessed as sufficient to minimize impacts to Santa Cruz tarplant critical habitat and California red-legged frog critical habitat. No additional compensatory mitigation for critical habitat is proposed.

Natural Communities

The following avoidance and minimization measures will be implemented to reduce potential impacts to natural communities within the Biological Study Area as a result of project-related activities:

BIO 1: Prior to any ground-disturbing activities, environmentally sensitive area fencing shall be installed along the maximum disturbance limits at each work site to minimize disturbance to adjacent habitats and/or vegetations. Special

Provisions for the installation of environmentally sensitive area fencing and silt fencing shall be included in the Construction Contract and identified on the project plans.

BIO 2: Impacts to native vegetation shall be offset by replacement plantings within the project limits, at replacement ratios that meet or exceed those required by the Coastal Development permit that will be issued by Santa Cruz County.

Invasive Species

The following avoidance and minimization measures will be implemented to reduce potential impacts associated with invasive species:

BIO 3: During construction, Caltrans shall ensure that the spread or introduction of invasive plant species shall be avoided to the maximum extent possible.

BIO 4: Only clean fill shall be imported. When practicable, invasive exotic plants in the project site shall be removed and properly disposed of. Any plant species rated as “High” on the Cal-IPC Invasive Plant Inventory that are removed from the construction site shall 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 shall be avoided.

BIO 5: Construction equipment shall be inspected to verify it is clean and weed-free by Caltrans before entering the construction site. If necessary, wash stations on-site shall be established for construction equipment under the guidance of Caltrans in order to avoid/minimize the spread of invasive plants and/or seed within the construction area. If wash stations on-site are infeasible due to the site’s space constraints, construction equipment shall be cleaned off-site and then driven only on paved roads to the site.

Regional Animal Species of Concern

California Red-Legged Frog

Caltrans anticipates the project will qualify for Federal Endangered Species Act incidental take coverage under the Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration’s Federal Aid Program (U.S. Fish and Wildlife Service 2011). The following measures are applicable measures from the Programmatic Biological Opinion that will be implemented for this project to reduce potential impacts to the California red-legged frog:

BIO 6: 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.

BIO 7: 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.

BIO 8: A U.S. Fish and Wildlife Service-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work begins. 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. Caltrans shall coordinate with the U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

BIO 10: 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. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

BIO 11: A U.S. Fish and Wildlife Service-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure that this monitor receives the training outlined in measure 4 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the U.S. Fish and Wildlife Service during review of the proposed action, he or she shall notify the resident engineer immediately. The resident engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the U.S. Fish and Wildlife Service shall be notified as soon as possible.

BIO 12: During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO 13: Without the express permission of the U.S. Fish and Wildlife Service, all refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO 14: 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, 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.

BIO 15: 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.

BIO 16: 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). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

BIO 17: To control sedimentation during and after project completion, Caltrans shall implement Best Management Practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act received for the project. If Best Management Practices are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

BIO 18: 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.

BIO 19: 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.

BIO 20: A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus*; *Procambarus clarkia*), and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

BIO 22: If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

BIO 23: To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force shall be followed at all times.

BIO 24: 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. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

BIO 25: Caltrans shall not use herbicides as the primary method to control invasive, exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it will implement the following additional protective measures for the California red-legged frog:

- a. Caltrans shall not use herbicides during the breeding season for the California red-legged frog;
- b. Caltrans shall conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged

frogs shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur;

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

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

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

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

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

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

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

j. All herbicides, fuels, lubricants, and equipment shall 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 shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO 26: 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. Caltrans shall include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation.

Nesting Birds

The following measures apply to all birds protected by the Migratory Bird Treaty Act and California Fish and Game Code. The list of birds protected by

these regulatory laws is extensive, and not all birds protected by these laws are likely to occur within the Biological Study Area. There are no formal survey protocols for most of these bird species, but the California Department of Fish and Wildlife typically requires projects to conduct pre-construction nesting bird surveys and avoidance of impacts to active bird nests.

BIO 27: Prior to construction, vegetation removal shall be scheduled to occur from September 2 to February 14, outside of the typical nesting bird season if possible, to avoid potential impacts to nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 15 to September 1), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than 3 days prior to construction. If an active nest is found, Caltrans shall coordinate with the California Department of Fish and Wildlife to 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 juveniles have fledged.

BIO 28: During construction, active bird nests shall not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time. Readily visible exclusion zones where nests must be avoided within 100 feet of disturbance shall be established by a qualified biologist using environmentally sensitive area fencing. Work in exclusion zones shall be avoided until young birds have fledged (permanently left the nest) or the qualified biologist has determined that nesting activity has otherwise ceased.

BIO 29: Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, environmentally sensitive area fencing shall be installed around the dripline of trees to be protected within the project limits.

BIO 30: All clearing/grubbing and vegetation removal shall be monitored and documented by the biological monitor(s) regardless of time of year.

2.1.5 Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memo dated December 15, 2021, the following significance determinations have been made:

It is determined that the project does not have the potential to affect cultural resources within the project limits. The project would involve work on the State Route 1 corridor, which has been studied multiple times for many highway maintenance and upgrade projects. The project work locations are areas that have been previously disturbed and/or have been maintained over the years. Because the project's activities would be limited to within the State Route 1 corridor, no additional cultural studies are required at this time.

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

2.1.6 Energy

Caltrans incorporates energy efficiency, conservation and climate change measures into transportation planning, project development, design, operations, maintenance of transportation facilities, fleet, equipment, and buildings to minimize the use of fuel supplies and energy resources as well as to reduce greenhouse gas emissions.

The project would not alter existing vehicle capacity on State Route 1 or alter the existing alignment of State Route 1. Therefore, the project would not alter existing energy use on the State Highway System. Some energy use would be required during project construction, but would be minimized whenever possible through the implementation of greenhouse gas reduction strategies during project construction. The amount of energy that would be used to construct this project would help reduce future energy use by decreasing the number of required preventive and scheduled maintenance operations.

The project would not alter or conflict with any existing local, regional, or state plans for energy management.

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

2.1.7 Geology and Soils

Considering the information in the Preliminary Geotechnical Report dated May 11, 2022, and the Paleontology Identification Report dated November 30, 2021, the following significance determinations have been made.

Geotechnical site investigations have not been completed. Geotechnical site investigations would be completed after the project has been approved, and results from the geotechnical site investigations would be used to guide the final engineering design of the project. All geotechnical investigations would be completed prior to project construction.

Project activities that are associated with geological and soil disturbance are limited to culvert replacement activities and electrical line hook-ups, which would require excavations and trenching. The scale of excavations and trenching required for culvert and electrical work is expected to be small and is not expected to disturb the existing geologic or soil integrity.

Based on preliminary geotechnical review of the project area and the proposed work, the project is not anticipated to alter existing geologic or soil conditions, and is also not anticipated to encounter or generate environmental concerns related to geology and/or soils.

However, California is prone to geologic events, and there is the constant potential that an unforeseen geologic event or change in the existing geologic condition could affect the project's design, construction or longevity. If there are any changes to the geologic or soil conditions that could affect the project, additional geotechnical review will need to be conducted for the project.

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
ii) Strong seismic ground shaking?	No Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No Impact

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
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 on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

2.1.8 Greenhouse Gas Emissions

Considering the information in the Air Quality, Greenhouse Gas, and Noise Assessment Memo dated November 18, 2021, and the Climate Change technical report dated December 6, 2021, the following significance determinations have been made.

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

Affected Environment

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

The Santa Cruz County Regional Transportation Commission's 2040 Regional Transportation Plan guides transportation development for the county and identifies State Route 1 as a major roadway for the county. State

Route 1 connects most of the heavily populated areas in the county and is considered the main thoroughfare due to the lack of alternative routes. Within the county, State Route 1 has the highest average daily traffic volumes. The route provides access for residents, goods movement, and tourist traffic in the region. Several traffic improvement projects have been completed in the past to improve traffic flow on State Route 1 in Santa Cruz County, and the local regional transportation plan has set goals to reduce single-passenger vehicle traffic in the region.

The 2018 Monterey County Regional Transportation Plan identifies State Route 1 as an integral north-south access for the county as this route is the only form of access for many of coastal communities within Monterey County and is considered the main coastal corridor for the region. State Route 1 interconnects with other east-west routes and provides access for residents, goods movement, and tourist traffic in the region. Several regional projects have been conducted and are being planned to improve traffic conditions along State Route 1 in Monterey County.

Santa Cruz County is in attainment for all federal air quality standards. The project is exempt from federal air quality conformity determination because the project qualifies under “Highway Safety Improvement Program implementation.” The project is within the North Central Coast Air Basin, and air quality is regulated by the Monterey Bay Air Resources District. The North Central Coast Air Basin is in non-attainment transitional for state ambient air quality standards for ozone and is in non-attainment for airborne particles less than 10 microns in diameter. In addition, the project is consistent with the Monterey Bay Air Resources District state air quality attainment goals, which are presented in the 2012-2015 Air Quality Management Plan.

Environmental Consequences

The purpose of the project is to restore the conditions of existing culverts along a segment of State Route 1. The project would not alter the existing vehicle capacity or alter the existing vehicle miles traveled on State Route 1. Therefore, the project is not anticipated to alter existing operational greenhouse gas emissions for the region. The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions in the region.

The total estimated greenhouse gas emissions for project construction is about 123 tons of carbon dioxide equivalent emissions over a period of 110 working days. This estimate is based on assumptions made during the environmental planning phase of the project and is considered a “ballpark” estimate of carbon dioxide equivalent emissions, based on limited data input and default modeling values for a stormwater and drainage project.

While the project would result in greenhouse gas emissions as a result of construction activities, it is anticipated that the project would not have any effect on facility operations greenhouse gas emissions.

In addition, the following project features would also help reduce greenhouse gas emissions generated by the project:

- *Transportation Management Plan*: The plan would keep the traveling public informed about the construction schedule and anticipated traffic delays, the dates and duration of any temporary closures on State Route 1, and other pertinent travel information, to minimize unnecessary delays and emissions.
- *Staged Construction*: The project has been designed to limit the length of lane closures to minimize delays to travelers and adopt appropriate construction schedules to minimize construction mobilization efforts, which would help reduce construction emissions.
- *Vegetation Replanting*: The project would replant vegetation after project construction is completed. Vegetation replanting would help sequester carbon.

Avoidance, Minimization, and/or Mitigation Measures

The potential for greenhouse gas impacts generated by project construction would be reduced to less than significant under CEQA with the implementation of the following minimization measure:

GHG 1: All construction activities will comply with all district rules, regulation and ordinances, and statutes of the California Air Resources Board to reduce and minimize construction greenhouse gas emissions (i.e., restrictions on idling equipment, properly maintained equipment, and appropriate point sources for materials, etc.). All applicable Caltrans standard measures and strategies for emissions reductions will be implemented to reduce construction-generated greenhouse gas emissions. Additional strategies and techniques for the reduction of construction emission would be implemented where feasible and appropriate.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Hazardous Waste Initial Site Assessment dated November 18, 2021, the following significance determinations have been made.

The Hazardous Waste memo indicated that there are potentially hazardous waste materials that could be encountered during project construction which include treated wood waste from guardrails, lead paint found in traffic striping, and aerially deposited lead on roadway surfaces. These anticipated

hazardous waste materials if present are likely to be disturbed during construction-related activities. More detailed hazardous waste investigations would be conducted during the project's design phase to determine presence and concentrations of these potentially hazardous waste materials. If hazardous waste materials were identified during project construction, the materials would be appropriately handled, transported and disposed of in accordance with Caltrans Standard Specifications. The project is not anticipated to encounter or use quantities of hazardous waste materials that have the potential to create substantial or considerable hazards to the public or the environment.

Project construction activities would occur at several work sites along State Route 1, but none of the construction locations are within 0.25 mile of an existing or proposed school.

Based on the California Department of Toxic Substances Control – Hazardous Waste and Substance Site List online database, there are no known hazardous waste issue or hazardous materials sites pursuant to Government Code Section 65962.5 within the project limits.

During project construction, State Route 1 within the project limits would remain open, and access for emergency responses and/or evacuations would not be affected.

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Less Than Significant Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less Than Significant Impact

Affected Environment

Airports

The project is within 2 miles of the Watsonville Municipal Airport, which is classified as a general aviation airport.

Based on the Watsonville Municipal Airport Master Plan 2001-2020, there are several work sites on the project that are within the 2020 airport noise exposure map. Noise levels indicated by the noise exposure map range from 55 to 65 decibels on annual average conditions. Based on 2020 data, more than 85 percent of all air traffic involves single-propellor aircrafts, with most aircraft operating during the day.

Wildland Fires

Based on the 2007 Cal Fire – Fire Hazard Severity Zone Map for Santa Cruz County, the northern half of the project limits is adjacent to areas that are considered a high fire hazard severity zone. The rest of the project limits is outside any identified fire hazard severity zone.

Environmental Consequences

Airports

Project construction near the Watsonville Municipal Airport is not expected to expose workers to excessive or hazardous noise levels. The maximum anticipated noise level originating from aircraft operations is approximately 55 to 65 decibels, which is similar to the noise level of normal human conversations. No additional project-related mitigation is anticipated to address exposure to airport-related noise.

Wildland Fires

Construction activities have the potential to unintentionally ignite nearby vegetation. However, the project would incorporate precautions to prevent fire-related incidents during construction as part of the code of safety practices in accordance with the California Division of Safety and Health – Fire Protections and Prevention Guidance.

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

HAZ 1: The project will include Caltrans Standard Specification related to fire prevention and fire safety in order to minimize the potential for igniting nearby vegetation during construction activities along with implementing the California Division of Safety and Health – Fire Protection and Prevention Guidance.

2.1.10 Hydrology and Water Quality

Considering the information in the Location Hydraulic Study dated June 30, 2021, and the Water Quality Study received on April 27, 2022, the following significance determinations have been made.

The project would not alter existing drainage patterns in the area because the project would repair existing drainage features and would not add or remove drainage features within the project limits.

The project would not involve the use or storage of materials that could become pollutants if the culverts are inundated during a flood.

The project is not anticipated to conflict with any existing or planned water management plan in the region because the project would be limited to improving existing drainage features.

The project is not anticipated to decrease existing water quality conditions in the project vicinity as effective combinations of temporary and permanent erosion and sediment control would be implemented as a component of the project. In addition, the project would include Caltrans standard measures and Best Management Practices would be implemented during construction to avoid and minimize potential impacts to water quality.

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	Less Than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

Affected Environment

The project is in an undefined Hydrologic Sub-Area (#305.10) and Watsonville Hydrologic Area within the Pajaro River Hydrologic Unit. The seven receiving water bodies for this project are McGowan Ditch, Pajaro River, Beach Road Ditch, Watsonville Slough, Struve Slough, Harkins Slough, and Gallighan Slough.

Highway storm water contains a variety of pollutants that are sourced from both naturally occurring processes (natural erosion, decomposition of fallen tree leaves) and human activities (combustion products from fossil fuels,

wearing of brake pads and tires). In some cases, the pollutants in highway storm water can cause impairment of the water bodies that storm water drains into or worsen an existing impairment. A body of water is considered “impaired” if it fails to meet water quality standards. On the recent (2014/2016) 303(d) list of impaired water bodies, the Pajaro River is listed as impaired for Chlorpyrifos (2013), Diazinon (2013), Fecal Coliform (2010), and Nitrate (2006); the Watsonville and Struve sloughs are listed as impaired for Fecal Coliform (2007); and the Harkins and Gallighan sloughs are listed as impaired by Indicator Bacteria (2007).

There are no drinking water or water recharge facilities within the project limits. The project lies in the Corralitos-Pajaro Valley groundwater basin. Groundwater was encountered and measured during the subsurface investigation in boring A-22-001 at post mile 2.7 at an elevation of 13.8 feet. At boring A-22-002 at post mile 101.53, groundwater was found in the thin interbeds of clayey sand with gravel between elevation 43.3 feet and 35.8 feet.

Environmental Consequences

The project could result in short-term water quality impacts during construction. Grading, excavation, and the removal of vegetation could cause an increase in erosion and sedimentation.

Rehabilitation of the culverts and installation of roadway lighting, traffic monitoring and maintenance access improvements would be a large operation, creating waste, debris, and dust. Storm water runoff from the project site and State Route 1 storm drains may transport pollutants to one of the seven receiving water bodies from construction activities if best management practices are not properly implemented. Storm water runoff drains into the Pajaro River and eventually discharges to the Pacific Ocean at Monterey Bay.

Generally, as the disturbed soil area increases, the potential for temporary water quality impacts also increases. Currently, the total proposed disturbed soil area across the project area is estimated to be 5.43 acres, which will be used for the Construction General Permit compliance.

Avoidance, Minimization, and/or Mitigation Measures

No permanent impacts are anticipated to storm water, groundwater and water resources with the current project scope. No further minimization measures beyond WQ 1 are necessary for this project.

WQ 1: Implement a robust Qualified Storm Water Pollution Prevention Plan (SWPPP) to minimize any temporary impacts to storm water during construction and use construction best management practices, as specified in the Storm Water Data Report. Also implement any Caltrans Standard Specifications for erosion and storm water control during construction.

2.1.11 Land Use and Planning

Project activities would occur mostly on the existing Caltrans right-of-way and on highway easements on State Route 1. Therefore, the project would not result in any divisions of an established or planned community.

Within the project limits, the alignment of the Coastal Zone boundary abuts the alignment of State Route 1. Project work sites to the west of State Route 1 are in the Coastal Zone, while projects work sites to the east of State Route 1 are outside of the Coastal Zone. The project is not anticipated to conflict or effect any existing Coastal Zone-related plans, policies, or regulations. Applicable California Coastal Act, Watsonville Local Coastal Plan and Santa Cruz Local Coastal Plan policies and consistency analysis are provided in Appendix B.

The project is not anticipated to conflict with any other existing land use plan, policy, or regulation in the region.

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

2.1.12 Mineral Resources

Project activities would involve work on highway features already located on the existing highway alignment on State Route 1. The project would have no involvement in the removal or extraction of mineral resources.

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

2.1.13 Noise

Considering the information in the Air Quality, Greenhouse Gas and Noise Assessment Memo dated November 18, 2021, the following significance determinations have been made.

The project would not permanently change existing local noise levels because it would not modify the capacity or alignment of State Route 1. Noise levels in proximity of project construction activities would likely increase. However, the increase in noise levels as a result of construction activities is not considered substantial because construction activities are temporary and intermittent. In addition, the project would include Caltrans Standard Specifications related to noise control to minimize potential noise-related disturbances caused by construction activities.

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?	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

2.1.14 Population and Housing

The project would not change the capacity or alignment of State Route 1, so the project would not change the population or housing needs in the region.

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact

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

2.1.15 Public Services

Project activities would be limited to the existing alignment of State Route 1. The project would not be involved with any planned or existing governmental facilities and is not anticipated to have any effect on any planned or existing governmental facilities in proximity of the project. The project would maintain public access on State Route 1 during project construction, and access to any existing governmental facilities near the project sites would be maintained.

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

2.1.16 Recreation

Project activities would be limited to the existing alignment of State Route 1. The project would not have a considerable effect on existing recreational patterns in the region. The project would not be involved in the construction, removal, or alteration of access points or routes used for recreation. Also, the project would not create, expand, alter, or remove recreational facilities. Public access on State Route 1 would be maintained during project construction.

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

2.1.17 Transportation

The project would not change the existing alignment or capacity of State Route 1 and would not conflict with any existing or planned transportation-related programs or facilities in the region. The project would not change existing vehicle miles traveled on State Route 1. Emergency access on State Route 1 would be maintained during project construction and would not change once the project is done.

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

2.1.18 Tribal Cultural Resources

Considering the information in the Cultural Resources Screened Undertaking Memo dated December 15, 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, or cultural landscape that is geographically

defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No Impact

2.1.19 Utilities and Service Systems

The project would repair existing culvert pipes along State Route 1. Culvert work would focus on improving existing drainage structures and conditions. The project would not install new culvert structures at new locations or relocate any existing culvert alignment. Also, the project would not change existing water supplies, wastewater treatment or drainage patterns in the region. The project would not change the existing functions of electrical, natural gas or telecommunications facilities in the region.

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

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

2.1.20 Wildfire

The project would not affect any planned or existing emergency response plans or emergency evacuation plans for the region. The project would not be involved with any infrastructure work that would alter the existing fire risk in the region. The project would not alter existing drainage patterns and would implement stormwater best management practices as part of the Caltrans Standard Measures that would be carried out during project construction.

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact

Question—Would the project:	CEQA Significance Determinations for Wildfire
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Less Than Significant Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Less Than Significant Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less than Significant Impact

Affected Environment

Project work would occur at numerous spots along State Route 1 in Monterey and Santa Cruz counties. Construction activities would occur mostly within the Caltrans right-of-way, aside from some locations where culvert work would occur on immediately adjacent land. Within the project limits, State Route 1 is a conventional four-lane freeway, with two lanes of travel in each direction, that crosses through a mildly urban environment with a mix of developed, agricultural, and open spaces.

Though the biological environment of the area is highly disturbed, numerous biological communities exist within the project area, as explained in Section

2.1.4 Biological Resources. As explained in Section 2.1.5 Cultural Resources and Section 2.1.18 Tribal Cultural Resources, project work would occur outside of culturally significant areas. As explained in Section 2.1.7 Geology and Soils, paleontological resources would not be impacted by the project.

Environmental Consequences

In response to checklist item a) above: The project was evaluated for potential impacts to biological resources, as explained in Section 2.1.4 Biological Resources. Five land cover types and vegetation communities occur in the Biological Study Area: ruderal/disturbed; coast live oak woodland; willow woodland; and coastal scrub. The Biological Study Area covers areas within or right next to the highway facilities; it is composed of developed and ruderal/disturbed habitats, which include the road surface and shoulders. Much of the Biological Study Area is developed, including paved highway, gravel shoulders, streets, and urban areas. While the project may affect the California red-legged frog and Santa Cruz tarplant and their respective critical habitats, the impact is considered less than significant with the implementation of the avoidance, minimization and mitigation measures outlined in Section 2.1.4 Biological Resources. The project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

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

In response to item b) above: The project was evaluated for potential cumulative impacts to the California red-legged frog, Santa Cruz tarplant, and the State Route 1 viewshed in the project Cumulative Impact Report. The Cumulative Impact Report follows the eight-step process for evaluating potential cumulative impacts. As part of this process, a resource study area was defined for each of the three resources. The current health of the three resources was evaluated, and the current and reasonably foreseeable projects that could contribute to impacts to the biological resources were considered. It was determined that, although the project would contribute to an existing adverse cumulative impact, the project's contribution would not be cumulatively considerable. Implementation of all avoidance, minimization, and mitigation measures outlined in Section 2.1.1 Aesthetics and Section 2.1.4 Biological Resources will help to ensure the project's impact is less than significant and not cumulatively considerable.

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

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

The project includes avoidance and minimization measures to reduce the impact the project may have on the aesthetic environment. The culvert improvements, additional paved surfaces and Transportation Management System elements such as the changeable message sign included in the project would permanently add built features that are not unusual to see in the highway corridor. Construction would also require removal of vegetation in some areas. With implementation of measures listed in Section 2.1.1 Aesthetics to minimize the noticeability of new highway features, the project would marginally affect scenic vistas in the area and would be consistent with the aesthetic and visual protection goals for State Route 1. Therefore, these visual changes would cause a minor reduction of visual quality to the immediate project area.

Finally, the project would inevitably generate noise during the construction process. The increase in noise levels as a result of construction activities would not be substantial because construction activities would be temporary and intermittent. In addition, the project includes Caltrans Standard Specifications for noise control to minimize potential noise-related disturbances caused by construction activities.

Avoidance, Minimization, and/or Mitigation Measures

A complete list of Standard Specifications and avoidance, minimization, and mitigation measures for the project can be found in Section 1.5 Standard Measures Included in All Alternatives, Section 2.1 CEQA Environmental Checklist, and Appendix C Avoidance, Minimization and/or Mitigation Measures Summary.

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION

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Making Conservation
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September 2021

NON-DISCRIMINATION POLICY STATEMENT

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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.

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To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

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."

Appendix B Coastal Policy Analysis

The project is consistent with the following relevant policies included in Chapter 3 of the California Coastal Act:

California Coastal Act Chapter 3, Article 4: Marine Environment

Section 30231 Biological productivity; water quality

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.

Consistency Analysis:

The project is not expected to decrease existing water quality conditions in the project vicinity because effective combinations of temporary and permanent erosion and sediment control would be implemented as a component of the project. In addition, the project would include Caltrans standard measures, and Best Management Practices would be implemented during construction to avoid and minimize potential impacts to water quality.

California Coastal Act Chapter 3, Article 5 Land Resources

Section 30240 Environmentally sensitive habitat areas; adjacent developments

(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 adjacent 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.

Consistency Analysis:

A portion of the project is adjacent to the Watsonville Slough System, which is considered an environmentally sensitive habitat area by the City of Watsonville and the County of Santa Cruz. While the project may affect and is

likely to adversely affect the California red-legged frog and Santa Cruz tarplant and their respective critical habitats, this impact is considered less than significant with the implementation of the avoidance, minimization and mitigation measures outlined in Section 2.1.4 Biological Resources. No impacts to the adjacent environmentally sensitive habitat area are anticipated.

California Coastal Act Chapter 3, Article 6: Development

Section 30251 Scenic and visual qualities

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.

Consistency Analysis:

With implementation of visual minimization measures included in Section 2.1.1 Aesthetics, the project would be consistent with the aesthetic and visual resource protection goals along State Route 1, and potential visual impacts would be reduced. These minimization measures include but aren't limited to preservation of existing vegetation, revegetation with native plant species, and aesthetic treatments for paving beyond the gore, traffic monitoring systems, and changeable message signs.

The project is partially located within the Coastal Zone in the City of Watsonville, which maintains jurisdiction in the region through its Local Coastal Program. The project would be exempt from a Coastal Development Permit issued by the City of Watsonville under 9-5.304 Exemptions of the Local Coastal Zone Implementation Plan:

9-5.304 Exemptions:

The following shall be exempt from the permit requirements of this article:

Roads. The repair and maintenance of existing roads and traffic control devices provided there is no addition to, or expansion of, the existing public road and no permanent street closure or abandonment of local streets providing coastal access.

There would be no addition or expansion of the existing public road within the jurisdiction of the City of Watsonville.

The project is also partially located within the Coastal Zone in Santa Cruz County, and Santa Cruz County maintains jurisdiction in the region through its Local Coastal Program. Most project activities would be within Santa Cruz County and would likely require temporary and permanent easements for completion.

The project is consistent with the following relevant policies from the Santa Cruz County Local Coastal Program:

Chapter 5 Conservation and Open Space

Santa Cruz County Local Coastal Plan Chapter 5, Objective 5.1 Biological Diversity

5.1.3 Environmentally Sensitive Habitats

Designate the areas described in 5.1.2 (d) through (j) as Environmentally Sensitive Habitats per the California Coastal Act and allow only uses dependent on such resources in these habitats within the Coastal Zone unless other uses are: (a) consistent with sensitive habitat protection policies and serve a specific purpose beneficial to the public; (b) it is determined through environmental review that any adverse impacts on the resource will be completely mitigated and that there is no feasible less-damaging alternative; and (c) legally necessary to allow a reasonable economic use of the land, and there is no feasible less damaging alternative.

5.1.6 Development Within Sensitive Habitats

Sensitive habitats shall be protected against any significant disruption of habitat values; and any proposed development within or adjacent 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 which cannot sufficiently mitigate significant adverse impacts on sensitive habitats unless approval of a project is legally necessary to allow a reasonable use of the land.

5.1.8 Chemicals within Sensitive Habitats

Prohibit the use of insecticides, herbicides, or any toxic chemical substance in sensitive habitats, except when an emergency has been declared, when the habitat itself is threatened, when a substantial risk to public health and safety exists, including maintenance for flood control by Public Works, or when such use is authorized pursuant to a permit issued by the Agricultural Commissioner.

5.1.9 Biotic Assessments

Within the following areas, require a biotic assessment as part of normal project review to determine whether a full biotic report should be prepared by

a qualified biologist: (a) Areas of biotic concern, mapped; (b) Sensitive habitats, mapped and unmapped.

Consistency Analysis:

A portion of the project is adjacent to the Watsonville Slough System, which is considered an environmentally sensitive habitat area by the City of Watsonville and the County of Santa Cruz. While the project may affect the California red-legged frog and Santa Cruz tarplant and their respective critical habitats, this impact is considered less than significant with implementation of the avoidance, minimization, and mitigation measures outlined in Section 2.1.4 Biological Resources. No impacts to the adjacent environmentally sensitive habitat area are anticipated. Minimization measure RLF18 outlines actions to be taken to prevent the introduction of insecticides, herbicides, or any toxic chemical substances to riparian habitat or water bodies. A Natural Environment Study providing technical information about the project's effects on special-status species was prepared by qualified biologists.

Santa Cruz County Local Coastal Plan Chapter 5, Objective 5.2 Riparian Corridors and Wetlands

5.2.3 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.

5.2.4 Riparian Corridor Buffer Setback

Require a buffer setback from riparian corridors in addition to the specified distances found in the definition of riparian corridor. This setback shall be identified in the Riparian Corridor and Wetland Protection ordinance and established based on stream characteristics, vegetation and slope. Allow reductions to the buffer setback only upon approval of a riparian exception. Require a 10-foot separation from the edge of the riparian corridor buffer to any structure.

5.2.5 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 distance between proposed structures and wetlands. Require measures to prevent water quality degradation from adjacent land uses, as outlined in the Water Resources section.

5.2.10 Development in Wetland Drainage Basins

Require development projects in wetland drainage basins to include drainage facilities or Best Management Practices (BMPs) which will maintain surface runoff patterns and water quality, unless a wetland management plan specifies otherwise, and minimize erosion, sedimentation, and introduction of pollutants.

Consistency Analysis:

While elements of this project are within 100 feet of a riparian corridor, the project is eligible for an exemption from the Santa Cruz County Code Riparian Corridor and Wetlands Protection Ordinance, per Chapter 16.30.050 Exemptions:

“The following activities shall be exempt from the provisions of this chapter.

The continuance of any preexisting nonagricultural use, provided such use has not lapsed for a period of one year or more. This shall include change of uses which do not significantly increase the degree of encroachment into or impact on the riparian corridor as determined by the Planning Director.”

The purpose of this project is to maintain the efficiency and serviceability of the existing roadway by improving the deteriorating drainage infrastructure, and thus is considered a “continuance of any preexisting nonagricultural use” to which setback requirements do not apply.

The project is not expected to decrease existing water quality conditions in the project vicinity because effective combinations of temporary and permanent erosion and sediment control will be implemented as a component of the project. In addition, the project would include Caltrans standard measures, and Best Management Practices would be implemented during construction to avoid and minimize potential impacts to water quality.

Santa Cruz County Local Coastal Plan Chapter 5, Objective 5.4 Monterey Bay and Coastal Water Quality

5.4.14 Water Pollution from Urban Runoff

Review proposed development projects for their potential to contribute to water pollution via increased storm water runoff. Utilize erosion control measures, on-site detention and other appropriate storm water best management practices to reduce pollution from urban runoff.

Consistency Analysis:

The project would not decrease existing water quality conditions in the project vicinity because effective combinations of temporary and permanent erosion and sediment control would be implemented as a component of the project. In addition, the project would include Caltrans standard measures, and Best

Management Practices would be implemented during construction to avoid and minimize potential impacts to water quality.

Santa Cruz County Local Coastal Plan Chapter 5, Objective 5.10 Visual Resources

5.10.2 Development Within Visual Resource Areas

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 Highway One, outside of the Urban/Rural boundary, as designated on the General Plan/Local Coastal Plan Visual Resources Map and apply the design criteria of Section 13.20.130 of the County's zoning ordinance to such development.

5.10.3 Protection of Public Vistas

Protect significant public vistas as described in policy 5.10.2 from all publicly used roads and vista points by minimizing disruption of landform and aesthetic character caused by grading operations, timber harvests, utility wires and poles, signs, inappropriate landscaping and structure design. Provide necessary landscaping to screen development which is unavoidably sited within these vistas.

5.10.9 Restoration of Scenic Areas

Require on-site restoration of visually blighted conditions as a mitigating condition of permit approval for new development. The type and amount of restoration shall be commensurate with the size of the project for which the permit is issued. Provide technical assistance for restoration of blighted areas.

Consistency Analysis:

With implementation of visual minimization measures included in Section 2.1.1 Aesthetics, the project would be consistent with the aesthetic and visual resource protection goals along State Route 1, and potential visual impacts would be reduced. The minimization measures include but aren't limited to preservation of existing vegetation, revegetation with native plant species, and aesthetic treatments for paving beyond the gore, traffic monitoring systems, and changeable message signs.

Santa Cruz County Local Coastal Plan Chapter 6, Objective 6.2 Slope Stability

6.2.10 Site Development to Minimize Hazards

Require all developments to be sited and designed to avoid or minimize hazards as determined by the geologic hazards assessment or geologic and engineering investigations.

Consistency Analysis:

A Preliminary Geotechnical Report prepared by the project Geotechnical Specialist characterized the geologic setting within the area of potential impact associated with the project. The Preliminary Geotechnical Report was used to aid in the design and siting of project elements.

Santa Cruz County Local Coastal Plan Chapter 6, Objective 6.3 Erosion

6.3.3 Abatement of Grading and Drainage Problems

Require, as a condition of development approval, abatement of any grading or drainage condition on the property which gives rise to existing or potential erosion problems.

6.3.4 Erosion Control Plan Approval

Required for Development: Require approval of an erosion control plan for all development, as specified in the Erosion Control ordinance. Vegetation removal shall be minimized and limited to that amount indicated on the approved development plans, but shall be consistent with fire safety requirements.

6.3.8 On-Site Sediment Containment

Require containment of all sediment on the site during construction and require drainage improvements for the completed development that will provide runoff control, including on-site retention or detention where downstream drainage facilities have limited capacity. Runoff control systems or Best Management Practices shall be adequate to prevent any significant increase in site runoff over pre-existing volumes and velocities and to maximize on-site collection of non-point source pollutants.

6.3.9 Site Design to Minimize Grading

“Require site design in all areas to minimize grading activities and reduce vegetation removal based on the following guidelines:

(a) Structures should be clustered;

(b) Access roads and driveways shall not cross slopes greater than 30 percent; cuts and fills should not exceed 10 feet, unless they are wholly underneath the footprint and adequately retained;

(c) Foundation designs should minimize excavation or fill;

(d) Building and access envelopes should be designated on the basis of site inspection to avoid particularly erodible areas;

(e) Require all fill and sidecast material to be recompact to engineered standards, reseeded, and mulched and/ or burlap covered.”

Consistency Analysis:

The purpose of the project is to maintain the efficiency and serviceability of existing roadway by improving the deteriorating drainage infrastructure, so any existing subpar grading or drainage conditions would be improved.

The project would implement effective combinations of temporary and permanent erosion and sediment control. In addition, the project would include Caltrans standard measures, and Best Management Practices would be implemented during construction.

A Preliminary Geotechnical Report prepared by the project Geotechnical Specialist identified potential geologic hazards within the area of potential impact associated with the project. The report was used to aid in the design and siting of project elements, particularly in regard to grading and erodible areas.

Project-related activities would not require any changes to the existing Santa Cruz County Local Coastal Program. The project would need to obtain a Coastal Development Permit from Santa Cruz County. The project would coordinate with Santa Cruz County on the Coastal Development Permit process and any permit conditions that may be required for the project. The Coastal Development Permit would be processed after the final environmental document has been approved; the permit would be obtained prior to project construction.

The project is partially located within the Coastal Zone in Monterey County, and Monterey County maintains jurisdiction in the region through its Local Coastal Program. Project activities in Monterey County would be limited to the installation of new traffic monitoring systems, which would be placed within existing state right-of-way and existing roadway prism. A Coastal Development Permit exemption may be obtained from Monterey County for the installation of the traffic monitoring systems. Project-related activities would not require any changes to the existing Monterey County Local Coastal Program. The project would coordinate with Monterey County to determine the appropriate Coastal Development Permit required for the project. The Coastal Development Permit would be processed after the final environmental document has been approved; the permit would be obtained prior to project construction.

Appendix C Avoidance, Minimization, and/or Mitigation Summary

Aesthetics (2.1.1)

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:

VIS 1: Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible will be employed.

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

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

VIS 4: Paving beyond the gore shall include aesthetic treatments to be determined and approved by the District 5 Landscape Architect.

VIS 5: Traffic monitoring systems elements shall be aesthetically treated, such as painting, and will be determined and approved by the District 5 Landscape Architect.

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

VIS 7: All streetlights shall be directed downward and shall include cut-off lens fixtures such that no point source lighting is visible from adjacent parcels.

VIS 8: Following construction, re-grade, and re-contour all construction staging areas and any other temporary use areas as necessary to match the surrounding pre-project topography.

Air Quality (2.1.3)

The potential for air quality impacts generated by project construction would be reduced to less than significant under CEQA with the implementation of the following minimization measure:

AIR 1: All applicable Caltrans standard measures and strategies for Air Quality, Emissions Reductions, Dust Control and Dust Palliative will be implemented during project construction.

Biological Resources (2.1.4)

Potential Impacts to biological resources as a result of the project would be reduced to less than significant under CEQA with implementation of the following measures:

BIO 1: Prior to any ground-disturbing activities, environmentally sensitive area fencing shall be installed along the maximum disturbance limits at each work site to minimize disturbance to adjacent habitats and/or vegetations. Special Provisions for the installation of environmentally sensitive area fencing and silt fencing shall be included in the Construction Contract and identified on the project plans.

BIO 2: Impacts to native vegetation shall be offset by replacement plantings within the project limits, at replacement ratios that meet or exceed those required by the Coastal Development Permit that will be issued by Santa Cruz County.

BIO 3: During construction, Caltrans shall ensure that the spread or introduction of invasive plant species shall be avoided to the maximum extent possible.

BIO 4: Only clean fill shall be imported. When practicable, invasive exotic plants in the project site shall be removed and properly disposed of. Any plant species rated as “High” on the Cal-IPC Invasive Plant Inventory that are removed from the construction site shall 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 shall be avoided.

BIO 5: Construction equipment shall be inspected to verify it is clean and weed-free by Caltrans before entering the construction site. If necessary, wash stations on-site shall be established for construction equipment under the guidance of Caltrans in order to avoid/minimize the spread of invasive plants and/or seed within the construction area. If wash stations on-site are infeasible due to the site’s space constraints, construction equipment shall be cleaned off-site and then driven only on paved roads to the site.

BIO 6: 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.

BIO 7: 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.

BIO 8: A U.S. Fish and Wildlife Service-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work begins. 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. Caltrans shall coordinate with the U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.

BIO 10: 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. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

BIO 11: A U.S. Fish and Wildlife Service-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist shall ensure that this monitor receives the training outlined in measure 4 above and in the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the U.S. Fish and Wildlife Service during review of the proposed action, he or she shall notify the resident engineer immediately. The resident engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the U.S. Fish and Wildlife Service shall be notified as soon as possible.

BIO 12: During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO 13: Without the express permission of the U.S. Fish and Wildlife Service, all refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations.

Prior to the onset of work, Caltrans shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO 14: 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, 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.

BIO 15: 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.

BIO 16: 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). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

BIO 17: To control sedimentation during and after project completion, Caltrans shall implement Best Management Practices outlined in any authorizations or permits, issued under the authorities of the Clean Water Act received for the project. If Best Management Practices are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

BIO 18: 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.

BIO 19: 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.

BIO 20: A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus*; *Procambarus clarkia*), and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

BIO 22: If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

BIO 23: To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force shall be followed at all times.

BIO 24: 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. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.

BIO 25: Caltrans shall not use herbicides as the primary method to control invasive, exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, it will implement the following additional protective measures for the California red-legged frog:

- a. Caltrans shall not use herbicides during the breeding season for the California red-legged frog;
- b. Caltrans shall conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur;
- c. Giant reed and other invasive plants shall be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®;

- d. Licensed and experienced Caltrans staff or a licensed and experienced contractor shall use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site;
- e. All precautions shall be taken to ensure that no herbicide is applied to native vegetation;
- f. Herbicides shall not be applied on or near open water surfaces (no closer than 60 feet from open water);
- g. Foliar applications of herbicide shall not occur when wind speeds are in excess of 3 miles per hour;
- h. No herbicides shall be applied within 24 hours of forecasted rain;
- i. Application of all herbicides shall be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all applications are made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye shall be added to the mixture to visually denote treated sites. Application of herbicides shall be consistent with the U.S Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins;
- j. All herbicides, fuels, lubricants, and equipment shall 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 shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO 26: 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. Caltrans shall include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation.

BIO 27: Prior to construction, vegetation removal shall be scheduled to occur from September 2 to February 14, outside of the typical nesting bird season, if possible, to avoid potential impacts to nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat during the nesting season (February 15 to September 1), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than 3 days prior to construction. If an active nest is found, Caltrans shall coordinate with the California Department of Fish and Wildlife to 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 juveniles have fledged.

BIO 28: During construction, active bird nests shall not be disturbed and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code shall not be killed, destroyed, injured, or harassed at any time. Readily visible exclusion zones where nests must be avoided within 100 feet of disturbance shall be established by a qualified biologist using environmentally sensitive area fencing. Work in exclusion zones shall be avoided until young birds have fledged (permanently left the nest) or the qualified biologist has determined that nesting activity has otherwise ceased.

BIO 29: Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, environmentally sensitive area fencing shall be installed around the dripline of trees to be protected within project limits.

BIO 30: All clearing/grubbing and vegetation removal shall be monitored and documented by the biological monitor(s) regardless of time of year.

Greenhouse Gas Emissions (2.1.8)

The potential for greenhouse gas impacts generated by project construction would be reduced to less than significant under CEQA with the implementation of the following minimization measure:

GHG 1: All construction activities will comply with all district rules, regulations and ordinances, and statutes of the California Air Resources Board to reduce and minimize construction greenhouse gas emissions (i.e., restrictions on idling equipment, properly maintained equipment, and appropriate point sources for materials, etc.). All applicable Caltrans standard measures and strategies for emissions reductions will be implemented to reduce construction-generated greenhouse gas emissions. Additional strategies and techniques for the reduction of construction emission would be implemented where feasible and appropriate.

Hazards and Hazardous Materials (2.1.9)

The potential for impacts due to wildland fires generated by project construction would be reduced to less than significant under CEQA with the implementation of the following minimization measure.

Wildland Fires

HAZ 1: The project will include Caltrans Standard Specifications related to fire prevention and fire safety in order to minimize the potential for igniting nearby vegetation during construction activities, along with implementing the California Division of Safety and Health – Fire Protection and Prevention Guidance.

Hydrology and Water Quality (2.1.10)

The potential for impacts to water quality caused by project construction would be reduced to less than significant under CEQA with the implementation of the following minimization measure:

WQ 1: Implement a robust Qualified Storm Water Pollution Prevention Plan (SWPPP) to minimize any temporary impacts to the storm water during construction and use construction best management practices, as specified in the Stormwater Data Report. Also implement any Caltrans Standard Specifications for erosion and stormwater control during construction.

List of Technical Studies Bound Separately (Volume 2)

- Air Quality, Greenhouse Gas and Noise Assessment Memo (November 18, 2021)
- Climate Change Technical Report (December 6, 2021)
- Cultural Resources Screened Undertaking Memo (December 15, 2021)
- Hazardous Waste Initial Site Assessment Memo (November 18, 2021)
- Location Hydraulic Study (June 30, 2021)
- Natural Environment Study (April 15, 2022)
- Paleontological Memo (November 30, 2021)
- Preliminary Geotech Report (May 11, 2022)
- Visual Impact Assessment (June 22, 2021)
- Water Quality Assessment (May 23, 2022)
- Cumulative Impact Report (June 7, 2022)

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

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

Or send your request via email to: lara.bertaina@dot.ca.gov
Or call: 805-779-0792

Please provide the following information in your request:

Project title: Santa Cruz Route 1 Drainage Improvement Project

General location information: Multiple culvert improvements on State Route 1 in Santa Cruz County

District number-county code-route-post mile: 05-SCR-01-0.00/7.94 and 05-MON-01-101.50/102.00

Project ID number: 0519000239