Moss Landing CAPM

On State Route 1 in Monterey County
05-MON-1-PM R90.98-R102.031
Project ID Number 0519000034

Initial Study
with Proposed Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

March 2024

General Information About This Document

What's in this document:

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

What you should do:

- Please read the document. Additional copies of the document are available for review at the Caltrans District 5 office at 50 Higuera Street, San Luis Obispo, California 93401, Monday through Friday, from 8:00 a.m. to 5:00 p.m. If you would like to receive a printed version of this document, please contact Lara Bertaina at 805-779-0792 or by email at lara.bertaina@dot.ca.gov. This document may be downloaded from the following website: https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects/05-1k870.
- Attend the hybrid public hearing at 5:30 p.m. on April 17 at the Moss Landing Marine Laboratories, located at 8272 Moss Landing Road, Moss Landing, California 95039. The virtual meeting can be accessed at the following website: https://cadot.webex.com/cadot/j.php?MTID=m2448bd38d0289b39fd99c06e33a39e25.
- Tell us what you think. If you have any comments regarding the proposed project, please attend the hybrid 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: May 5, 2024.

What happens next:

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

Accessibility Assistance

Caltrans makes every attempt to ensure our documents are accessible. Due to variances between assistive technologies, there may be portions of this document that are not accessible. Where documents cannot be made accessible, we are committed to providing alternative access to the content. Should you need additional assistance, please contact us at the phone number in the box below.

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; phone number 805-779-0792 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

05-MON-1-PM R90.98-R102.031
Project ID Number 0519000034

Preserve pavement, replace traffic management system elements, upgrade Americans with Disabilities Act-compliant curb ramps, and upgrade guardrails to Manual for Assessing Safety Hardware (MASH) standards on State Route 1 from post miles R90.98 to R102.031 in Monterey County

INITIAL STUDY
with Proposed Negative Declaration

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

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

Jason Wilkinson

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

3/27/24

Date

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

Lara Bertaina, Caltrans District 5 Environmental, 50 Higuera Street, San Luis Obispo, California 93401; 805-779-0792; lara.bertaina@dot.ca.gov

DRAFT
Proposed Negative Declaration
Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: [pending]

District-County-Route-Post Mile: 05-MON-1-PM R90.98-R102.031

EA/Project Number: EA 05-1K870 and Project ID Number 0519000034

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate the pavement wear course on a two-lane highway and four-lane freeway, replace 30 sign panels and seven vehicle detection systems, and upgrade four Americans with Disabilities Act-compliant curb ramps. Secondary improvements include upgrading guardrail and guardrail end treatments, conducting vegetation control (minor concrete), installing shoulder backing, and using pavement dig outs. The project is in Monterey County, near Moss Landing, from 0.5 mile north of the Molera Road Overcrossing to the Monterey/Santa Cruz county line. The scope includes the on-ramps and off-ramps within the project limits.

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 avoidance and minimization measures will not have a significant effect on the environment.

_____

Jason Wilkinson
Deputy District Director Environmental, District 5
California Department of Transportation

_____

Date

Table of Contents

Chapter 1 Proposed Project 1
1.1 Introduction 1
1.2 Purpose and Need 1
1.2.1 Purpose 1
1.2.2 Need 1
1.3 Project Description 2
1.4 Project Alternatives 5
1.4.1 Build Alternatives 5
1.4.2 No-Build (No-Action) Alternative 6
1.5 Standard Measures and Best Management Practices Included in All Build Alternatives 6
1.6 Discussion of the NEPA Categorical Exclusion 8
1.7 Permits and Approvals Needed 8
Chapter 2 CEQA Evaluation 9
2.1 CEQA Environmental Checklist 9
2.1.1 Aesthetics 9
2.1.2 Agriculture and Forestry Resources 12
2.1.3 Air Quality 13
2.1.4 Biological Resources 15
2.1.5 Cultural Resources 39
2.1.6 Energy 42
2.1.7 Geology and Soils 43
2.1.8 Greenhouse Gas Emissions 46
2.1.9 Hazards and Hazardous Materials 51
2.1.10 Hydrology and Water Quality 52
2.1.11 Land Use and Planning 54
2.1.12 Mineral Resources 54
2.1.13 Noise 55
2.1.14 Population and Housing 57
2.1.15 Public Services 58
2.1.16 Recreation 58
2.1.17 Transportation 59
2.1.18 Tribal Cultural Resources 60
2.1.19 Utilities and Service Systems 62
2.1.20 Wildfire 63
2.1.21 Mandatory Findings of Significance 64
Appendix A Title VI Policy Statement 69
Appendix B Coastal Policy Analysis 71
Appendix C Avoidance, Minimization, and/or Mitigation Summary 81

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (known as Caltrans) proposes the Moss Landing Capital Preventive Maintenance (CAPM) Project on State Route 1 in Monterey County.

For the proposed project, Caltrans is the lead agency under the California Environmental Quality Act (known as CEQA). Caltrans is also the lead agency under the National Environmental Policy Act (known as NEPA). Caltrans has determined that the project qualifies for a Categorical Exclusion under NEPA and will complete that documentation before project approval.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to comprehensively address roadway deficiencies on State Route 1 between post miles R90.98 and R102.031. The project would:

- Restore the ride quality and extend the service life of the existing pavement.
- Improve traffic operations and enhance sign panel visibility.
- Improve traffic management systems.
- Improve pedestrian infrastructure and accessibility.
- Bring traffic safety devices up to current design standards.
- Maintain and preserve the primary coastal access route in the area.

1.2.2 Need

The project is needed because certain assets are in poor condition and will continue to deteriorate if they are not repaired or replaced. Failure to address these deficiencies may disrupt service on the State Route 1 corridor through the project limits and will require more frequent maintenance activities. This project would address the following issues:

- Based on the Pavement Condition Report, the flexible pavement within the project limits is exhibiting distress and degraded ride quality. Minor

rehabilitation of the flexible pavement in the form of an overlay is needed because, if left uncorrected, the pavement will continue to deteriorate, leading to more costly reconstruction.

- The traffic monitoring systems are reaching the end of their service life and need to be replaced to ensure the collection of reliable information.
- Caltrans has adopted the new Manual for Assessing Safety Hardware (MASH) crash testing criteria as its new roadside safety hardware standard, which has resulted in many existing roadside safety systems being out of compliance with current standards.
- Existing sign panels do not meet the current Federal Highway Administration reflectivity standards.

1.3 Project Description

The project is in Monterey County, near Moss Landing, from 0.5 mile north of the Molera Road Overcrossing to the Monterey/Santa Cruz county line. The scope includes the on- and off-ramps within the project limits. The project would rehabilitate the pavement wear course on the two-lane highway and four-lane freeway, replace 30 sign panels and seven vehicle detection systems, and upgrade four Americans with Disabilities Act-compliant curb ramps. Secondary improvements include upgrading guardrail and guardrail end treatments, conducting vegetation control using minor concrete installation, installing shoulder backing, and using pavement dig outs. Figure 1-1 shows the project vicinity map for the project, and Figure 1-2 shows the project location map for the project.

Figure 1-1 Project Vicinity Map

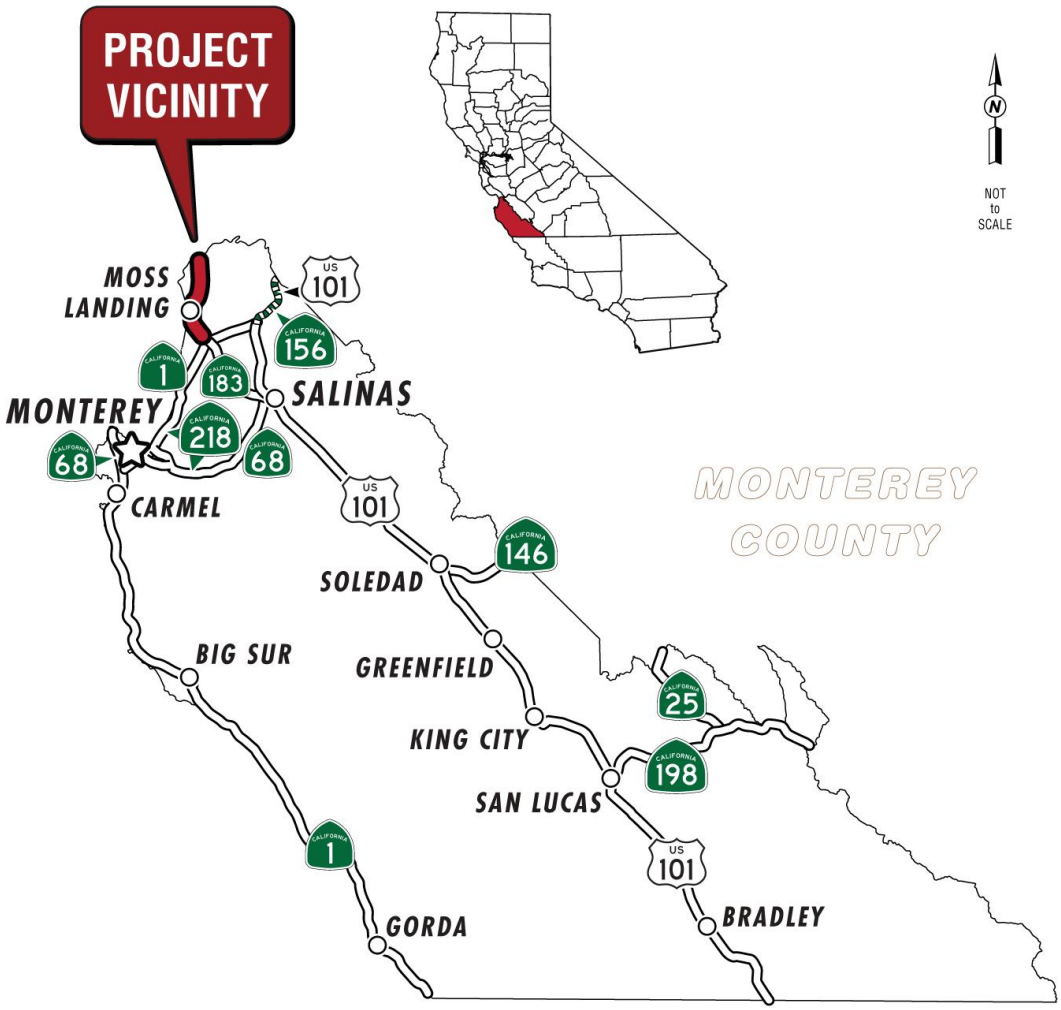
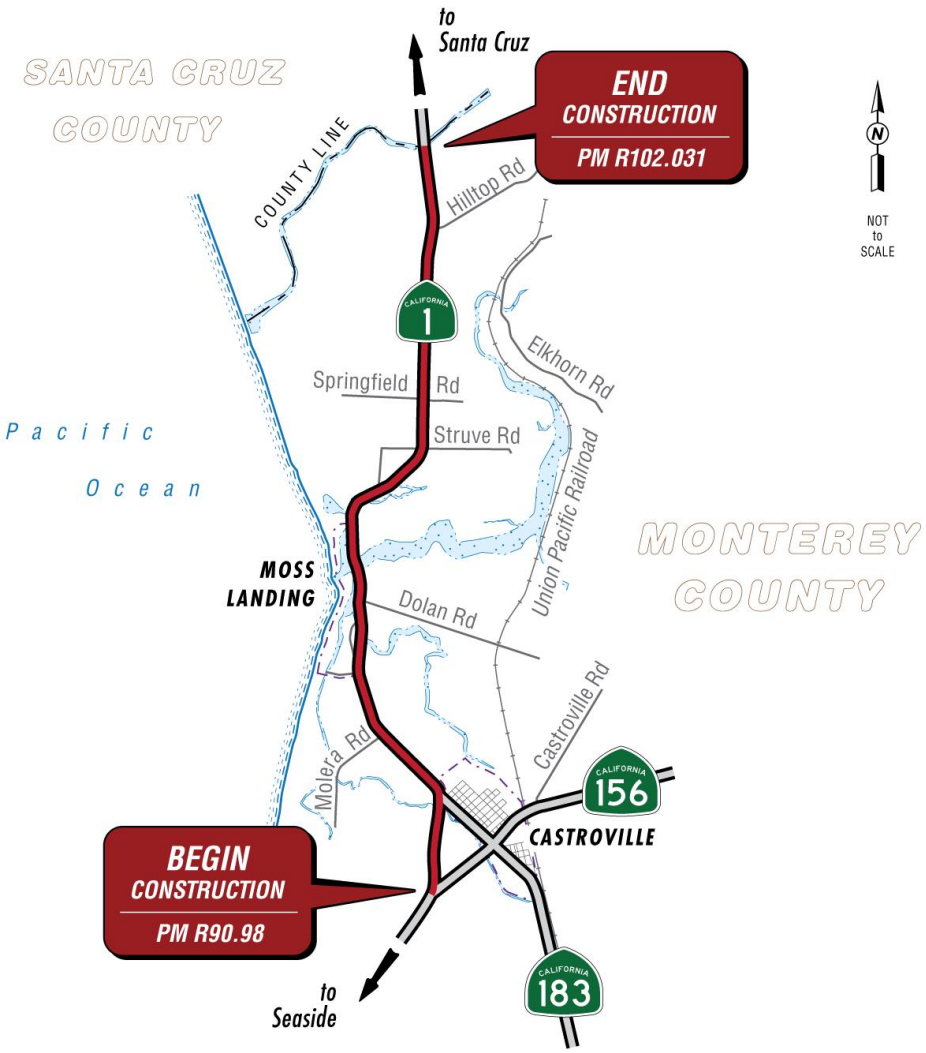


Figure 1-2 Project Location Map



1.4 Project Alternatives

The project development team has analyzed two alternatives – the Build Alternative and the No-Build (No-Action) Alternative.

1.4.1 Build Alternatives

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

The Build Alternative proposes the following asset improvements:

1. Mainline

a. Place 0.2 foot of Rubberized Hot Mix Asphalt overlay, except for specific locations, which will be cold planed 0.2 foot, then overlayed 0.2 foot.

b. Dig Outs: Repair severely distressed or failing asphalt pavement with partial depth replacement.

2. Striping

a. Replace the existing traffic stripe and pavement marking to meet current standards.

3. Rumble Strips

a. Hot mix asphalt will replace the void where the existing rumble strips will be cold planed. New shoulder rumble strips would be constructed.

4. Americans with Disabilities Act-Compliant Ramps

a. Four curb ramps compliant with the Americans with Disabilities Act are proposed to be replaced at post miles 96.44 and 96.56.

5. Guardrail

a. Remove the existing guardrail and install Midwest Guardrail System features at several locations. One cypress tree near post mile 96.4 is proposed for removal as a result of these installations. However, this tree would be replaced in kind with a native species.

6. Dike

a. Existing highway dikes would be removed where practical. All existing dikes would be evaluated for hydraulic utility and stormwater Best Management Practices treatment.

7. Shoulder Backing

a. Place shoulder backing to account for erosion or weathering at the edge of the pavement.

8. Traffic Management System – Microwave Vehicle Detection System

a. Seven Microwave Vehicle Detection Systems would be constructed along State Route 1 between post miles 94.21 and 101.56.

9. Bus Pads

a. Twelve new bus stop locations would be installed between post miles 94.3 and 98.8.

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would not provide improvements to the pavement or pedestrian facilities. This alternative would not provide improvements compliant with the Americans with Disabilities Act. Routine maintenance would continue.

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

The project would include a list of Caltrans standard measures that are typically used on all Caltrans projects. Caltrans standard measures are considered features of the project and are evaluated as part of the project. Caltrans standard measures are not implemented to address any specific effects, impacts, or circumstances associated with the project but are instead implemented as part of the project's design to address common issues encountered on projects. The measures listed below are related to environmental resources and are applicable to the project. These measures can be found in the Caltrans 2023 Standard Specifications document.

- 7-1 Legal Relations and Responsibility to the Public
- 10-4 Water Usage
- 10-5 Dust Control
- 10-6 Watering

- 12-1 Temporary Traffic Control
- 12-3 Temporary Traffic Control Devices
- 12-4 Traffic Control Systems
- 13-1 Water Pollution Control
- 13-2 Water Pollution Control Program
- 13-4 Job Site Management
- 13-6 Temporary Sediment Control
- 13-7 Temporary Tracking Control
- 13-10 Temporary Linear Sediment Barriers
- 14-1 Environmental Stewardship
- 14-2 Cultural Resources
- 14-6 Biological Resources
- 14-7 Paleontological Resources
- 14-8 Noise and Vibration
- 14-9 Air Quality
- 14-10 Solid Waste Disposal and Recycling
- 14-11 Hazardous Waste and Contamination
- 14-12 Other Agency Regulatory Requirements
- 17-2 Clearing and Grubbing
- 18-1 Dust Palliatives
- 20-1 Landscape
- 20-2 Irrigation
- 20-3 Planting
- 20-4 Plant Establishment Work
- 21-2 Erosion Control Work

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

1.6 Discussion of the NEPA Categorical Exclusion

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

1.7 Permits and Approvals Needed

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

Agency	Permit/Approval	Status
California Coastal Commission	Coastal Development Permit	To be obtained before construction.
Monterey County	Coastal Development Permit	To be obtained before construction.
California Transportation Commission	Project Funding for Future Phases	To be obtained before the beginning of the project's design phase.
U.S. Fish and Wildlife Service	Programmatic Biological Opinion; California red-legged frog	To be obtained before approval of the final environmental document.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

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

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

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

2.1.1 Aesthetics

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic, and historic environmental qualities" (California Public Resources Code Section 21001[b]). Considering the information in the Visual Impact Assessment dated October 2023, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	**Less Than Significant Impact**

Question—Would the project:	CEQA Significance Determinations for Aesthetics
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	**No Impact**
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	**Less Than Significant Impact**
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	**No Impact**

Affected Environment

State Route 1 within the project limits is not classified as an Officially Designated Scenic Highway. Throughout the project limits, State Route 1 passes through a flat topography, with the predominant surrounding land use being crop production. The small community of Moss Landing is characterized by residential, commercial, and marinas along the Monterey Bay at the mouth of Elkhorn Slough, with the Moss Landing Power Plant located on the east side of State Route 1 near the intersection of Dolan Road.

Most views are predominately of agricultural fields, but viewers would also see occasional views of the sea and rural residential and commercial buildings. In the central portion of the project corridor, views of Elkhorn Slough and the community of Moss Landing can also be seen. The project is within the coastal zone, and its visual character is influenced by its proximity to coastal visual resources and natural areas.

Environmental Consequences

Scenic vistas in the vicinity of State Route 1 vary throughout the project limits and include views of agricultural and open space and gentle topography with natural vegetation patterns. Overhead utilities, signage, lighting, and other elements are commonly seen throughout more developed areas. The new guardrail would be slightly taller but would not affect scenic vistas. The proposed improvements would cause a minimal, if any, effect on views of

scenic vistas in the area. The distant hills and fields would remain visible and would continue to contribute to the scenic vista.

The existing visual character of the project area is based primarily on its agricultural character, along with native and naturalized vegetation that parallels the roadside. The community of Moss Landing and Elkhorn Slough add visual character as well. More developed areas within the project vicinity are characterized by a mix of residential and commercial buildings. Proposed project elements like structures related to traffic management system elements, sign panels, and complete street elements, such as bus pad stops and upgrading the guardrail, would be readily visible from the roadway. By themselves, these project elements are not uncommon and would not be seen as unexpected visual elements in a highway setting. The addition of these elements together would create a more utilitarian appearance and add a degree of visual clutter to the setting. As a result, these visual changes would cause a minor reduction in rural character and visual quality in the immediate project area.

Since the proposed single tree removal would occur within a grouping of trees, removing one tree would likely go unnoticed by the casual observer. The existing trees would remain, and the character would not be impacted. Staining or darkening new metal roadside elements would help them blend with their surroundings and be less noticeable in the landscape. However, measures specifically addressing this visual effect would minimize the noticeability of the individual project elements and reduce their potential effect on the existing visual character.

The project proposes no new sources of lighting and, therefore, would not result in any visual impacts related to lighting or glare.

Implementation of the project would result in visual changes, as seen from public viewpoints, such as State Route 1 and some intersecting local streets. An increased visual scale of the highway facility would primarily be due to the traffic management system elements and other roadside elements. While they would not be unexpected elements in the roadway environment, their increased size and contrasting appearance would make these otherwise visually neutral features potentially more noticeable and would contribute somewhat to the increased visual scale of the highway facility.

Although potential visual changes would occur, the same type of elements proposed with this project are seen elsewhere along the highway and are not, by themselves, inconsistent with the rural roadway character of the region or throughout the state. As a result, the traffic management system elements and other roadside elements would be subordinate to the overall experience of traveling along the highway. Although most project elements would be characteristic of the setting, viewer sensitivity may be heightened because of the project's work locations within the coastal zone.

Avoidance and Minimization Measures

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

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

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

VIS-3: Guardrail posts should be stained or darkened to be visually compatible with selected rural settings, as determined and approved by a Caltrans District 5 Landscape Architect.

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

VIS-5: Following construction, regrade and recontour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

VIS-6: Minor concrete vegetation control shall include aesthetic treatment to be determined and approved by a District 5 Landscape Architect.

VIS-7: All complete streets elements, including but not limited to bus stop pads, shall be designed in coordination with a District 5 Landscape Architect.

2.1.2 Agriculture and Forestry Resources

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

The project is located near prime farmland, unique farmland, and farmland of statewide importance, but additional right-of-way is not needed for this

project. Therefore, the project would not convert any farmland under these designations to nonagricultural use or conflict with existing zoning for agricultural use or a Williamson Act contract.

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

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

2.1.3 Air Quality

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

Considering the information in the Air Quality, Noise, and Water Quality Technical Assessment Memorandum dated April 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	**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?	**No Impact**

Affected Environment

The proposed project is in the North Central Coast Air Basin. This basin consists of Monterey, Santa Cruz, and San Benito counties. The Monterey Bay Air Resources District regulates air quality in the North Central Coast Air Basin. The North Central Coast Air Basin is considered in attainment for all federal ambient air quality standards and non-attainment for state ambient air quality standards for airborne particulate less than 10 microns in diameter (Particulate Matter 10).

Environmental Consequences

Since no additional lanes or capacity is being added to the highway, there would be no difference in long-term air emissions with or without the proposed project. However, there would be a temporary increase in air emissions and fugitive dust during construction. The use of equipment during project construction can generate fugitive dust that may have a substantial temporary impact on local air quality if large amounts of excavation, grinding, material transport, and subsequent fill operations are necessary. It is anticipated that there would be minor earthwork required for each individual location, so minimal dust generation would be expected.

Due to the use of standard construction dust and emission minimization practices and procedures, it is anticipated that the project emissions of particulate matter (dust) and equipment emissions will be well within the daily thresholds of the Monterey Bay Air Resources District. Construction emissions are further calculated and discussed in the greenhouse gas section (Section 2.1.8).

Avoidance and Minimization Measures

The following measure would avoid or minimize impacts on air quality:

AIR-1: To minimize dust emissions from the project, Section 14-9.02 (Air Pollution Control) of the 2023 Standard Specifications states that the contractor is responsible for complying with all local air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the contract, including those provided in Government Code Section 11017 (Public Contract Code Section 10231). Additionally, the project-level Stormwater Pollution Prevention Plan will address water pollution control measures that cross-correlate with standard dust emission minimization measures such as covering soil stockpiles, watering haul roads, watering excavation and grading areas, and so on. By incorporating appropriate engineering design and stormwater Best Management Practices during construction, minimal short-term air quality impacts are anticipated.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated February 2024, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration Fisheries?	**Less Than Significant Impact**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**Less Than Significant Impact**
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	**No Impact**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**No Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	**No Impact**

Affected Environment

The Area of Potential Impact, identified by the Caltrans Design Engineer, consists of potential disturbance areas for both permanent and temporary direct impacts and assumes the maximum amount of disturbance and/or impact associated with project construction, including cut and fill, staging, and access. The Biological Study Area is defined as the area that may be directly, indirectly, temporarily, or permanently impacted by construction and construction-related activities and as a buffer to encompass all indirect effects on surrounding natural areas. The Biological Study Area occurs along an 11.05-mile section of State Route 1 along the Monterey County coast, from post mile R90.98 to post mile R102.031. The project site is in a coastal agricultural area between the cities of Watsonville and Castroville. Areas next to the Biological Study Area locations are mostly under private ownership and are relatively undeveloped. The size of the Biological Study Area is about 207 acres and includes the area encompassing the proposed project location and staging and access areas.

Most of the project limits are within the coastal zone (see Appendix B for the coastal policy analysis completed for this project).

The biological resources that could be affected by the proposed project are discussed in more detail below.

Natural Communities and Habitats of Concern

Developed/Paved: Developed areas are locations that have been constructed or otherwise physically altered to the extent that native vegetation is no longer supported. Developed land is characterized by permanent or semipermanent structures and pavement or hardscape. Areas where no natural land is evident due to frequent use that prevents vegetation from growing or

materials such as gravel being placed upon it may also be considered developed, such as State Route 1, roads, and commercial areas.

Landscaped: Landscaped areas are generally vegetated with a variety of ornamental trees, ruderal/non-native grasses, and herbaceous plantings. Species observed within landscaped areas include stands of eucalyptus trees, non-native conifers such as pines and Monterey cypress, ngaio trees, and Russian olive. This category also includes small, landscaped areas around private driveways and commercial areas.

Ruderal/Disturbed: Ruderal vegetation is abundant throughout the Biological Study Area, growing on disturbed road shoulders, pullouts, and road banks, and is especially thick on the roadsides in agricultural areas. The vegetation includes small to extensive patches, often mono-dominant, of black mustard, Italian thistle, milk thistle, English plantain, wild radish, tocalote, fennel, and poison hemlock.

Agriculture: The agriculture category in the Biological Study Area includes fields of intensively cultivated irrigated row crops, such as artichokes, brassica crops, and strawberries.

Non-Native Grassland: Most of the vegetated open areas within the Biological Study Area that are not dominated by trees or shrubs and are not considered wetland habitat fall within the Wild Oats and Annual Brome Grasslands Herbaceous Semi-Natural Alliance. This is a very common vegetation type in California, creating the iconic golden hills in the late summer and fall. Species dominance varies from site to site, although slim oat, soft chess, ripgut brome, and/or rattlesnake grasses are usually the dominant grass species. Coastal heron’s bill, English plantain, and smooth cat’s ear are dominant herbaceous flowering plant species in this community.

Coast Live Oak Woodland Forest: Coast live oak is the only dominant tree species in the Coast Live Oak Woodland and Forest Alliance in the Biological Study Area. Regionally, soils tend to be deep sandy loams with high organic matter, although some of the Coast Live Oak Woodlands in the Biological Study Areas are found on fairly shallow sandy soils underlaid by sandstone. Coast Live Oak is a drought-resistant evergreen tree ranging from 20 to 80 feet in height, with massive spreading branches and a dense canopy of thick, waxy leaves. Coast Live Oaks are a long-lived species and can survive for 300 years or more. Although seemingly ubiquitous on the Central Coast of California, Coast Live Oak Woodlands are limited in distribution to a 50-mile-wide swath along the coast from Mendocino County to northern Baja California and are absent from the interior ranges and Sierra Nevada. Oak woodland occurs in small patches within the Biological Study Area. Commonly associated woody species and vines in Coast Live Oak Woodlands and Forests include poison oak, toyon, pink honeysuckle, Monterey pine, California blackberry, and coyote brush.

Coyote Brush Scrub: Coyote brush is the dominant to codominant species in the Coyote Brush Scrub Shrubland Alliance, with a grassy understory that is similar in species composition to the Wild Oats and Annual Brome Grasslands Herbaceous Alliance. The Coyote Brush Scrub Shrubland Alliance occurs on stabilized dunes of coastal bars, river mouths, coastline spits, coastal bluffs, open slopes, and ecotonal areas with grasslands from sea level to 3,300 feet in elevation. Stands can be either transitional between grassland and woodland vegetation types or persistent for a long time. Common associates include poison hemlock, California blackberry, stinging nettle, sticky monkey flower, Italian thistle, French broom, and fennel.

Ice Plant Mats: Areas dominated by ice plants are found in patches throughout the Biological Study Area, often associated with landscaped areas and coastal salt marshes. The ice plant is a succulent, perennial herb native to the coast of South Africa, where the climate is similar to coastal California. It was introduced to California in the early 1900s for erosion stabilization and was mainly used near railroad tracks and later used by Caltrans on roadsides. It has been used as an ornament for many years and is still sold in nurseries. However, the ice plant is a highly invasive species in California, with a California Invasive Plant Council rating of "high." Ice plant mats displace native coastal species by forming large masses of dense mats.

Willow Thickets: This community is dominated by willow species, mainly Arroyo willow, and most closely aligns with the Arroyo Willow Thickets Shrubland Alliance. This community is a dense, low, closed-canopy, broadleaf, winter-deciduous forest commonly found along low-gradient streams on the central coast that have moist to saturated sandy or gravely soils. This community most closely matches the Central Coast Arroyo Willow Riparian Forest community. It is dominated almost exclusively by arroyo willow, often with other willows or riparian tree species. Other plant species commonly found in this community in the Biological Study Area include California blackberry and poison hemlock. Willow thickets are found primarily in the northern half of the Biological Study Area around Struve and Bennett Sloughs, drainage locations, and around the Pajaro River.

Disturbed Northern Coastal Salt Marsh: The alkaline flats and salt marsh areas within the Biological Study Area are classified in Pickleweed Mats Herbaceous Alliance and Salt Grass Flats Herbaceous Alliance because they are dominated almost exclusively by pickleweed or salt grass. These natural alliance types fall within the Northern Coastal Salt Marsh vegetative community, which is a highly productive community dominated by herbaceous and subshrubs, salt-water-tolerant plants forming dense cover and up to 3 feet tall. It is usually found along sheltered inland margins of bays, lagoons, and estuaries from Oregon to Point Conception, where it intergrades with southern coastal salt marsh. The hydric soils are subject to regular tidal inundation by salt water for at least part of the year. Common associates of this community within the Biological Study Area include alkali heath, annual

beard grass, fleshy jaumea, alkali weed, and poison hemlock. This community is primarily located around the slough complexes within the Biological Study Area and directly next to ruderal roadside vegetation, such as mustard, Italian ryegrass, and fennel.

Disturbed Coastal Brackish Marsh: This community is dominated at various locations by alkali bulrush, fat-hen, salt marsh bulrush, and broadleaf cattails and falls under the following natural communities: salt marsh bulrush, fields of fat-hen and brass buttons, and cattail marshes. These vegetation alliances fall within the Coastal Brackish Marsh vegetative community. Within the Biological Study Area, this community is primarily located south of the slough complexes from post mile 95.65 to post mile 95.70 on the east side of State Route 1, just south of the power plant, and post mile 94.65.

Wetlands, Other Waters, and Riparian Areas

Presumed wetlands that meet at least one wetland parameter occur at the following post miles: 94.7, 95.5-95.6, 96.5-96.6, 96.7-97.3, 97.8, 97.6-98.1, T101.4-R101.6. Wetlands that meet all three wetland parameters occur at post miles 96.6, 96.7, and 99.9. Most of these locations were sloughs and rivers, including Tembladero Slough, Moro Cojo Slough, Elkhorn Slough, Bennett Slough, and the Pajaro River, that supported more stable hydrologic conditions and provided habitat for aquatic species.

The Pajaro River is a freshwater river that empties into Monterey Bay and the Pacific Ocean. Riparian vegetation adjacent to the river includes Arroyo willow, Fremont cottonwood, and blue elderberry. The river flows under the roadway within the Biological Study Area. However, work would occur on paved surfaces and previously disturbed shoulder-backing areas adjacent to the road.

Special-Status Plant and Animal Species

The term special-status species refers to plants or animals that are federally or state listed as endangered, threatened, or rare species that are candidates or proposed for federal or state listing and species considered special-concern species by federal or state agencies. There is potential for 32 special-status plant species and 41 special-status animal species to occur within the Biological Study Area and the surrounding area.

The special-status plant and animal species that could be affected by the project are described in greater detail below:

Monterey Spineflower: Monterey spineflower is an annual herb that is federally protected and has a California Rare Plant Rank of 1B.2. This species is commonly found in coastal dune and sandy soil habitats. There are three California Natural Diversity Database occurrences within the Biological Study Area, the most recent dating back to 1998. The Biological Study Area also occurs adjacent to the federally designated critical habitat for the

Monterey spineflower, near Moss Landing State Beach. No Monterey spineflowers were seen during surveys.

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. The California red-legged frog historically ranged from Marin County southward to northern Baja California. Monterey, San Luis Obispo, and Santa Barbara counties support the largest remaining California red-legged frog populations within California. California red-legged frogs use a variety of areas, including aquatic, riparian, and upland habitats. The California red-legged frog uses both riparian and upland habitats for foraging, shelter, cover, and nondispersal movement.

No protocol surveys were conducted for the California red-legged frog, and the species was not seen during general wildlife surveys. There are records of known occurrences of the California red-legged frog within the Biological Study Area and within 3 miles, per the California Natural Diversity Database. Therefore, presence within the Biological Study Area is inferred. A buffer of 2 miles was applied to known and potential breeding ponds in the area using Geographic Information Systems to determine possible dispersal distances from breeding ponds to locations within the Area of Potential Impact. A known breeding pond occurs within 0.05 mile of the Biological Study Area on the west side of Hilltop Road, just south of the Salinas Road interchange. This pond was last assessed for the presence of California red-legged frogs in 2016, where California red-legged frogs of unspecified life stages were seen, and their presence is still assumed.

Bennett Slough and Struve Pond have had positive findings of adult California red-legged frogs since 1974. Positive California red-legged frog findings also occurred farther inland of Bennett Slough, approximately 0.4 mile east of the Biological Study Area, as recently as 2022. Additionally, several small agricultural ponds within 2 miles of the Biological Study Area could be occupied by California red-legged frogs. Much of the landscape surrounding these ponds is dominated by agricultural development, such as row crops. Agricultural land, including row crops, is not considered a dispersal barrier to California red-legged frogs, per the U.S. Fish and Wildlife Service.

The U.S. Fish and Wildlife Service considers 30 cars per hour to be a complete dispersal barrier to California red-legged frogs. In 2017, the hourly traffic volume for this segment of State Route 1 varied from 1,778 to 2,621 cars per hour. Even when considering fluctuations in traffic volume throughout the day and the year, it is unlikely that this segment of State Route 1 would get a low enough traffic volume to allow a California red-legged frog to safely cross. Therefore, State Route 1 is considered a barrier to California red-legged frog dispersal throughout the Biological Study Area. When calculating the dispersal upland habitat within the Area of Potential Impact, only uplands on the same side of the highway as the nearest potential pond were

considered accessible to California red-legged frogs because of the highway's barrier effect.

The shoulders of State Route 1 throughout the Biological Study Area that would use shoulder backing largely contain ruderal vegetation or non-native grassland habitats that are directly adjacent to the highway. These areas are at the interface between intact upland habitat and the transportation corridor, and the margins of the roadway and shoulder at the edge of this habitat are regularly impacted by Caltrans maintenance crews, vehicles, and pedestrians. This area lacks the moist leaf litter and structural cover needed by the California red-legged frog for suitable upland habitat.

California Tiger Salamander: This species is endemic to California and is both a federally and state-listed species. The populations are often fragmented and are under the threat of development from urbanization and agricultural conversion. Critical habitat for the California tiger salamander was designated in 2005, but no critical habitat occurs within or near the Biological Study Area locations. This species requires pools for breeding and upland habitat for shelter, foraging, and dispersal. California tiger salamanders live most of their lives underground, typically in rodent burrows in grasslands and oak savannahs. During the winter months, when precipitation accumulates in shallow pools and ponds, adult salamanders emerge to breed and then return to their upland habitat shortly thereafter. Breeding adults may disperse to different breeding ponds in different years, can cross creeks and multiple plant communities, and do not follow riparian corridors.

No protocol surveys were conducted for the California tiger salamander because no potential breeding habitat would be affected by the proposed project. Potentially suitable dispersal habitat occurs within the Biological Study Area; therefore, habitat assessments were conducted during field surveys. A buffer of 1.24 miles was applied to known and potential breeding ponds in the area using Geographic Information Systems to determine possible dispersal distances from breeding ponds to locations within the Biological Study Area. A known breeding pond occurs within 1.2 miles of the Biological Study Area on the west side of State Route 1 just south of Jensen Road; however, this pond has not been assessed for the presence of the California tiger salamander since 2008.

Bennett Slough and Struve Pond, an area of Bennett Slough just north of State Route 1 at post mile 97.8, had positive findings of adult California tiger salamanders in 1974; however, California tiger salamanders were not seen throughout the slough during surveys as recent as 2022. The salinity levels in the slough may be too high to support California tiger salamanders, though this was not tested. Several small agricultural ponds within 1.24 miles of the Biological Study Area are unlikely to support the California tiger salamander due to water treatments, poor water quality, and other biological factors, including urban developments that create barriers to movement. Much of the

landscape surrounding these ponds is dominated by agricultural development, such as row crops, farm roads, and silt fencing for crops.

Potentially suitable dispersal habitat occurs throughout the Biological Study Area. This area is buffered by disturbed ruderal vegetation or non-native grassland habitats that are directly adjacent to the highway. These areas are at the interface between intact habitat and the transportation corridor. The margins of the roadway and shoulder at the edge of this habitat are regularly impacted by Caltrans maintenance crews, vehicles, and pedestrians. Like the California red-legged frog, State Route 1 is considered a barrier to California tiger salamander dispersal throughout the Biological Study Area.

Santa Cruz Long-Toed Salamander: The Santa Cruz long-toed salamander is both a federally and state-listed species. The current known distribution of Santa Cruz long-toed salamander is restricted to southern Santa Cruz and northern Monterey counties, from Aptos to Castroville, within the coastal belt, and consists of six metapopulations.

Adult and subadult Santa Cruz long-toed salamanders spend most of the year in upland refugia, including rodent burrows, leaf litter, underneath surface objects, in rotting logs within dense oak woodlands, riparian vegetation, and mesic coastal scrubs. Adults migrate from upland habitats to seasonal or semi-perennial breeding ponds at night and during late fall and winter rains, generally from November through March. In contrast, juvenile dispersal is mostly confined to the first substantial fall rains, sometimes as early as August. Santa Cruz long-toed salamanders appear to travel in nearly straight lines, with marked individuals documented to migrate 0.5 mile from breeding ponds to upland habitat, per the U.S. Fish and Wildlife Service.

No protocol surveys were conducted for the Santa Cruz long-toed salamander, and the species was not seen during reconnaissance surveys. The Biological Study Area is within the known range of the Santa Cruz long-toed salamander, and potential breeding habitat occurs within the Biological Study Area at Bennett Slough from post mile 97.3 to post mile 98.2. There are known occurrences of Santa Cruz long-toed salamander at this site from 1974, and while more recent surveys have not occurred, the U.S. Fish and Wildlife Service still assumes the presence of the species. However, the quality of habitat surrounding the site is very low, and the likelihood of encountering a Santa Cruz long-toed salamander is also very low.

Coast Range Newt: The coast range newt is a California Department of Fish and Wildlife Species of Special Concern. This species is broadly found in the coast ranges from central Mendocino County southward to northern San Diego County. Coast range newts occur primarily in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub, and mixed chaparral, but are also found in annual grassland and mixed conifer types.

The coast range newt was not seen during wildlife reconnaissance-level surveys. Potentially suitable aquatic and upland habitat occurs within the Biological Study Area, similar to that of the California tiger salamander and California red-legged frog. Although the nearest California Natural Diversity Database occurrence of this species is 10 miles south of the Biological Study Area, its presence is still inferred.

Tidewater Goby: The tidewater goby is a federally endangered species and is considered a Species of Special Concern by the California Department of Fish and Wildlife. The species is endemic to coastal lagoons, estuaries, and backwater marshes in California. Common features of tidewater goby habitat include shallow water with little to no flow and fine sediment such as sand, mud, or muddy gravel. The species tends to avoid currents and concentrate in slack-water areas.

Federally designated critical habitat for tidewater goby occurs within the Biological Study Area. This habitat consists of two units, with one located at Bennett Slough and the other at Pajaro River. These units consist of 167 acres and 215 acres, respectively.

No protocol surveys were conducted for tidewater goby within the project area. California Natural Diversity Database records of tidewater goby occur within the Biological Study Area at Elkhorn Slough from 1984 and Moro Cojo Slough from 2006.

Western Snowy Plover: The western snowy plover is a threatened species under the Federal Endangered Species Act. The Pacific Coast population is defined as those individuals that nest within 50 miles of the Pacific Ocean on the mainland coast, peninsulas, offshore islands, bays, estuaries, or rivers of the U.S. and Baja California, Mexico. Sand spits, dune-backed beaches, beaches at creek and river mouths, and salt pans at lagoons and estuaries are the main coastal habitats for nesting. Less common nesting habitats include bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and river bars.

No protocol surveys were conducted, and no western snowy plovers or nests were seen during general wildlife surveys of the Biological Study Area. The Biological Study Area is adjacent to three western snowy plover critical habitat units. Several California Natural Diversity Database records from the 1970s and 1980s occur west of the Biological Study Area along the coastline from the Salinas River and northward to the Pajaro River. The Biological Study Area does not contain the appropriate essential physical and biological features to provide suitable nesting or nonnesting habitat for the species.

Southern Sea Otter: The southern sea otter is a federally threatened marine mammal that is also protected under the Marine Mammal Protection Act. The southern sea otter historically occurred continuously along the North Pacific

Rim, from Japan to Baja California, Mexico. Its current range is restricted from San Mateo County to Santa Barbara County and San Nicolas Island. The southern sea otter is considered a keystone species, maintaining ecosystem balances in kelp forests and seagrass beds. The southern sea otter habitat consists of hard and soft sediment marine habitats from the littoral zone to depths of less than 300 feet. Most individuals occur between shore and 65-depth contours. Within these habitat parameters, sea otters prefer rocky shorelines with kelp beds.

Southern sea otters were seen within the Biological Study Area at Elkhorn Slough during reconnaissance wildlife surveys. No focused surveys were conducted. Elkhorn Slough has been extensively recolonized by the southern sea otter population, and sightings are common year-round. Elkhorn Slough is the largest estuarine ecosystem within the current population range of southern sea otters.

Crotch's bumblebee, obscure bumblebee, western bumblebee, and American bumblebee: The following species are addressed here as a group because they have similar habitat requirements.

The Crotch's bumblebee is a state candidate endangered species. The species is largely endemic to California and historically ranged north from the Redding area, south to San Diego, spanning the state from east to west. The species was once common throughout the Central Valley, but the population has sharply declined, with its overall range having been reduced by about 75 percent. Nests are often located underground in abandoned rodent burrows, but they can also be found in tufts of grass, old bird nests, rock piles, or cavities in dead trees. Crotch's bumblebees typically live in grassland or scrub areas in hotter and drier environments; however, historical records indicate that they can also occur along the temperate Big Sur Coast.

Optimal nesting and foraging habitats are considered to be large, open meadows dominated by native wildflowers. Most bumblebee species can travel 0.5 mile or more from their nest to forage, and food plants include milkweeds, native buckwheat, lupines, poppies, and sages. Crotch's bumblebee nests are typically built in the spring and remain active through the summer.

Obscure bumblebees live in open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests. This species occurs along the Pacific Coast, from Southern California to Southern British Columbia, with scattered records from the east side of California's Central Valley. The main threats for this species appear to be climate change and habitat loss due to extensive development and agricultural activity.

Western bumblebees are generalist foragers and do not depend on any flower type as a nectar or food source. Foraging habitat requirements include an abundant supply of floral resources with continuous blooming between the spring and fall. Western bumblebees have historically occurred throughout western North America, and the species has continued to decline since 1998. The species most commonly lives in areas east of the Cascade Mountain Range and Rocky Mountain Range in Alaska, Canada, and Northern California and spans east toward Nebraska to Northern Arizona and New Mexico. Within these regions, the areas that have exhibited the largest population decline are those with lower elevations in California, western Oregon, and western Washington.

Found in open farmland and fields of the eastern and central U.S., the American bumblebee lives from Mexico to southern Canada, as well as in much of the mountain west through California. Once thought to be among the most widespread bumblebee species in North America, the American bumblebee has experienced sharp declines in recent decades.

No American bumblebees were seen in the Biological Study Area during general wildlife surveys for this project, and no focused surveys were conducted. The nearest California Natural Diversity Database occurrence is approximately 2.5 miles northwest of the northern extent of the project's Biological Study Area and is from 1995. The only other occurrence nearby is approximately 3 miles north of the northern extent of the project's Biological Study Area and is from 1994. Suitable nesting habitat may exist in marginal areas that contain small mammal burrows. The southern portion of the project area with grassland habitat contained a few small mammal burrows, as well as other areas periodically throughout the Biological Study Area.

Monarch Butterfly: The monarch butterfly is an orange and black butterfly that colonizes in large groups, migrating from Mexico to the California coast. Monarch butterfly overwintering habitat is declining and considered rare under State California Environmental Quality Act Guidelines Section 15380, and the species is included on the California Department of Fish and Wildlife Special Animals List as a candidate for a California Endangered Species Act listing. The western monarch butterfly population, from west of the Rocky Mountains, migrates to overwintering sites along the California coast from September to November, remaining through the winter. Overwintering sites include cool, wind-protected tree groves of eucalyptus, Monterey cypress, and Monterey pine that feature high moisture content and filtered sunlight along the California coast between Mendocino County and Baja California.

The monarch butterfly is dependent on its host plant, milkweed, for developmental life stages. Females lay their eggs on the undersides of leaves, which hatch in approximately four days. Larvae feed on the milkweed plant, and the larval stage is estimated to last 9 to 14 days, after which the

larvae enter the pupal stage. Then an adult monarch butterfly emerges from its pupal case in approximately 9 to 15 days.

The Biological Study Area is within the known range of overwintering western monarch butterfly populations. Marginally suitable habitat is present within the eucalyptus stands along the northern portion of the project near post mile T101.3 and near Dolan Road at post mile 96.1, as well as stands of non-native Monterey cypress and Monterey pines near Elkhorn Slough and the Moss Landing Power Plant. Two overwintering sites are identified as being within the Biological Study Area, and monarch butterflies occur primarily as migrating individuals in the vicinity of the Biological Study Area.

Southwestern Pond Turtle: The southwestern pond turtle is a California Department of Fish and Wildlife Species of Special Concern and was recently proposed as federally threatened by the U.S. Fish and Wildlife Service. Historically, southwestern pond turtles were present in most Pacific slope drainages between the Oregon and Mexican borders. Southwestern pond turtles live where water persists year-round, in ponds along foothill streams or in broad washes near the coast. The ponds favored by southwestern pond turtles typically support emergent and floating vegetation, such as cattails and algal mats. They also bask on half-submerged logs, rocks, or flat shorelines close to the edge of water. The southwestern pond turtle is mostly aquatic, leaving its aquatic site to reproduce, estivate, and overwinter. It may overwinter on land or in water, but it may remain active in water during the winter season. In warmer areas along the Central and Southern California coast, southwestern pond turtles may be active all year. Breeding for southwestern pond turtles typically occurs in late April to July. Upland nesting sites are required near the aquatic site and are typically located in open, clay, or silt slopes to ensure proper incubation temperature.

No focused surveys for southwestern pond turtles were conducted, and no southwestern pond turtles were seen within the Biological Study Area during general wildlife surveys. Suitable aquatic and nesting habitats occur within the Biological Study Area for southwestern pond turtles along the Pajaro River and its associated riparian areas. There are California Natural Diversity Database occurrences of southwestern pond turtles near the Biological Study Area at the Pajaro River in 1988 and 2007.

Northern California Legless Lizard, Burrowing Owl, And American Badger: The following species are addressed here as a group because they have similar habitat requirements.

The Northern California legless lizard is considered a Species of Special Concern by the California Department of Fish and Wildlife. Habitats include beach dunes, pine-oak woodland, chaparral, desert scrub, sandy washes, and stream terraces. Northern California legless lizards do not bask in direct sunlight and live mostly underground, burrowing in loose sandy soil. They are

mostly active in the morning and evening when foraging beneath leaf litter. This species breeds between early spring and July, and bears live young between September and November.

The American badger is considered a Species of Special Concern by the California Department of Fish and Wildlife. They are nocturnal and diurnal and are active year-round, with variable periods of torpor in winter. Badgers mate in the summer and early fall, with births mostly occurring between March and April. Threats to the American badger include habitat loss, indiscriminate trapping, and persistent poisons.

The burrowing owl is considered a Species of Special Concern by the California Department of Fish and Wildlife. Burrowing owls live in grassland, shrubland, and desert habitats. The burrowing owl uses small mammal burrows for roosting and nesting cover and preys on insects, small mammals, reptiles, small birds, and carrion. The species is most threatened by habitat loss.

Townsend's Big-Eared Bat and Other Roosting Bats: The Townsend's big-eared bat is a California Department of Fish and Wildlife Species of Special Concern. It forages over a wide variety of grassland, wetland, shrub, and wooded habitats, although it is most common in mesic forests. Bridges, buildings, and tree cavities are also occasionally used for roosting. Nursery roosts are most often located in caves, tunnels, mines, and buildings.

Other species of bats may occur in the project Biological Study Area and could occupy various human-made structures within the Biological Study Area. Nocturnal foraging occurs up to 15 miles from roosting sites. Common species that may occur in the area include California myotis, little brown myotis, Yuma myotis, and big brown bats. These species typically give birth and congregate in maternal roosts to raise their young between February 15 and September 1.

Bridges frequently have structural features that are similar to those of natural roosts, and their large mass offers the thermal buffering that roosting bats require. They also frequently serve to replace natural roosts in anthropogenically altered landscapes. Night roosts are commonly found in concrete girder bridges, where the girders create warm air pockets and the bridge deck temperature is typically warmer and more stable than the ambient temperature.

No roosting bats or bat signs were observed within the Biological Study Area. All bridges within the Biological Study Area contain crevices that could support marginal roosting habitat. However, it is unlikely that these features would support maternity roosts due to a lack of optimal roosting habitat.

Tricolored Blackbird, Southwestern Willow Flycatcher, and Least Bell's Vireo: The following species are addressed here as a group because they have similar habitat requirements.

The tricolored blackbird is listed as threatened under the California Endangered Species Act. The species can be found throughout much of the lowlands west of the Sierra Nevada, extending west across the Central Valley to the coast from Sonoma County south to Santa Barbara County. Tricolored blackbirds are permanent residents of California but make extensive movements and migrations during the breeding season and in winter within their range.

Breeding colonies typically occur in valleys or low-lying areas with nesting habitat and extensive grassland, certain agricultural crops, or other suitable foraging habitat; however, the elevation of colony locations varies greatly across the range. Requirements for breeding include a secure nesting substrate, a source of water, and foraging habitat that provides sufficient food resources. Historically, the nesting substrate occurred primarily in freshwater wetlands dominated by cattails and tules. As the extent of freshwater wetlands decreased, tricolored blackbirds began using other vegetation types as nesting substrates, such as Himalayan blackberries, thistles, stinging nettles, and agricultural grain fields.

No tricolored blackbirds were observed within the Biological Study Area during surveys. Potential nesting habitat for tricolored blackbirds occurs within riparian vegetation adjacent to the Pajaro River, as well as post mile R101.5. One California Natural Diversity Database record of a nesting colony occurs within 1 mile from the Biological Study Area at the north end of the Elkhorn Slough, reaching near Las Lomas Ranch in 1963. However, this population is presumed to have been extirpated (eliminated).

The southwestern willow flycatcher is a federal and state-endangered species. The current breeding range of the southwestern willow flycatcher includes Southern California, but the quantity of suitable habitat is heavily reduced from historical levels. The southwestern willow flycatcher occurs from near sea level to over 8,500 feet but is primarily found in lower-elevation riparian habitats. The southwestern willow flycatcher usually breeds in patchy to dense riparian habitats along streams or other wetlands, near or adjacent to surface water, or underlain by saturated soil. Southwestern willow flycatchers typically arrive on breeding grounds between early May and early June.

No southwestern willow flycatchers were observed within the Biological Study Area during surveys. There are no California Natural Diversity Database occurrences of southwestern willow flycatchers in Santa Cruz or Monterey counties.

The least bell's vireo is a federal and state endangered species. The current range includes populations in Santa Barbara, Ventura, Los Angeles, Orange, Riverside, San Diego, and Inyo counties, with a few isolated individuals and/or breeding pairs observed in Kern, Monterey, San Benito, and Stanislaus counties. Least bell's vireos require riparian areas to breed and typically inhabit structurally diverse woodlands along watercourses, including cottonwood-willow woodlands and forests, oak woodlands, and mule fat scrub. Least bell's vireos usually arrive in California during mid-to-late March. They build their nests in a variety of plants that provide concealment in the form of dense foliage.

No least bell's vireos were observed within the Biological Study Area during surveys. The nearest California Natural Diversity Database occurrence of least bell's vireo is approximately 8 miles to the east of the Biological Study Area from 2001.

Other Nesting Birds: Nesting birds are addressed here as a group because they have similar habitat requirements. Several nesting bird species that are protected under the Migratory Bird Treaty Act and California Fish and Game Code Section 3503 could nest in habitats within the Biological Study Area. The nesting bird season for the Biological Study Area is considered to be February 1 to September 31.

The bridge over Tembladero Slough supported active swallow nests under it during surveys. Potential nesting habitat for other bird species occurs in trees, shrubs, and under bridges within the Biological Study Area.

Invasive Species

Executive Order 13112 defines invasive species as any species, including its seeds, eggs, spores, or other biological material capable of propagating that species that is not native to that ecosystem and whose introduction does or is likely to cause economic or environmental harm or harm to human health. Biological surveys identified 47 plant species in the Biological Study Area that are listed as invasive by the online California Invasive Plant Council Database. Of these identified plant species, seven were rated as high invasiveness, 18 were rated as moderate invasiveness, 21 were rated as limited, and one species was observed with an invasiveness rating of "watch."

Environmental Consequences

Natural Communities and Habitats of Concern

Impacts on natural communities and habitats within the project's Biological Study Area have been quantified based on ground disturbance, vegetation disturbance, and removal. These impact areas were overlain with the mapping of habitats and jurisdictional areas. The maximum amount of potential disturbance due to construction, resulting in both permanent and temporary impacts, has been assumed in the Biological Study Area. The

disturbance would occur at proposed work areas, areas of cut and fill, staging locations, access locations, and more.

Northern Coastal Salt Marsh Natural Community: The Northern Coastal Salt Marsh Natural Community occupies approximately 2.93 acres within the Biological Study Area. However, the various areas mapped as Northern Coastal Salt Marsh Natural communities are buffered by ruderal vegetation or non-native grassland habitats that are directly adjacent to the highway. These limits of pickleweed mats will be mapped during the project's design phase and included in the final design plans as Environmentally Sensitive Areas. Although pickleweed mats occur within the Area of Potential Impact, no impacts would occur with the implementation of the proposed avoidance and minimization measures. Further, the avoidance and minimization measures proposed for wetlands, other waters, and riparian areas have been assessed as sufficient to also minimize impacts on the Northern Coastal Salt Marsh.

Wetlands, Other Waters, and Riparian Areas

Although jurisdictional features occur within the project's Biological Study Area, Caltrans anticipates that no impacts would occur with the implementation of the proposed avoidance and minimization measures. If the project design changes, jurisdictional features would need to be re-surveyed to confirm the project would be able to avoid impacts on jurisdictional features that are adjacent to the project's Area of Potential Impact. Currently, no jurisdictional water permits are anticipated for the project.

Special-Status Plant and Animal Species

Monterey Spineflower: The project as proposed is not expected to impact the Monterey spineflower or any other special-status plant species. With the proposed avoidance and minimization measures, no impacts on plant species are expected. The Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on the Monterey spineflower.

California Red-Legged Frog: Because most of the project area occurs within dispersal distance of potentially suitable breeding ponds and has potentially suitable dispersal habitat, there is potential that during project activities, dispersing California red-legged frogs may be present in the work area, although the potential is low due to heavy highway traffic and poor habitat conditions. Construction activities, including shoulder backing and moving heavy equipment, could result in the injury or mortality of a California red-legged frog if present. The potential need to capture and relocate California red-legged frogs could subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot traffic or construction equipment. The potential for impacts on California red-legged frogs is anticipated to be low due to no observations of the species within the Biological Study Area during reconnaissance surveys;

however, this could change over time as the species could potentially disperse and/or expand populations throughout the Biological Study Area.

Although breeding habitat may occur within the Area of Potential Impact at Bennett Slough, no work would occur off pavement between post miles 97.2 and 97.8. Therefore, the project would have no impact on breeding habitat. Further, the project would have no impacts on designated critical habitats as none occurs within the Area of Potential Impact.

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. The basis for this determination is that California red-legged frog presence has been inferred, and there would be a low but possible potential for take of the species during construction activities. Caltrans anticipates the proposed project would 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.

California Tiger Salamander: Because the shoulders of the highway and areas immediately adjacent throughout the project area are of low habitat quality and highly unlikely to support the California tiger salamander, the project would have no impact on the California tiger salamander. If a California tiger salamander is identified within the project area, Caltrans will coordinate with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife to determine appropriate protection measures.

Santa Cruz Long-Toed Salamander: Because the areas adjacent to the highway around Bennett Slough are of low quality for the Santa Cruz long-toed salamander and impacts to riparian vegetation and associated wetlands will be avoided, the project will have no impacts on the Santa Cruz long-toed salamander.

Coast Range Newt: Like the impacts described previously for California red-legged frogs, construction activities for the proposed project could result in the injury or mortality of coast range newts if present. The potential need to capture and relocate coast range newts would subject these animals to stresses that could result in adverse effects. Injury or mortality could occur from accidental crushing by worker foot traffic or construction equipment. Erosion and sedimentation could also occur, which would directly or indirectly affect water quality. The potential for these impacts is anticipated to be low due to no observations of the species within the Biological Study Area locations during surveys, but this could change over time.

Tidewater Goby: All project activities would occur on paved surfaces and previously disturbed shoulder-backing areas adjacent to the road. Therefore,

impacts on the tidewater goby and its critical habitat are not anticipated. The Federal Endangered Species Act effects determination is that the proposed project would have no effect on tidewater goby or its critical habitat.

Western Snowy Plover: No sandy beach habitat occurs within the Biological Study Area. Although the Biological Study Area occurs adjacent to a federally designated critical habitat unit for western snowy plovers, no impacts to these critical habitat units are anticipated. Construction activities would not result in additional noise impacts on the species, and work would not occur in suitable nesting or nonnesting habitats. The Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on western snowy plovers.

Southern Sea Otter: All project activities would occur on paved surfaces and previously disturbed shoulder-backing areas adjacent to the road. No work would occur in southern sea otter habitat. Therefore, no impacts on the southern sea otter are anticipated.

Crotch's bumblebee, obscure bumblebee, western bumblebee, and American bumblebee: The following species are addressed here as a group because they have similar project-related impacts and avoidance and minimization measures. With the exception of guardrail upgrades, shoulder backing, and bus pad paving, construction activities would take place on the existing roadway, with material and equipment storage occurring in previously disturbed and ruderal areas. Off-highway work would occur adjacent to the existing highway within low-quality, ruderal habitat subject to routine disturbance with limited ability to support sensitive species. While the project location is within the historical ranges for these bumblebee species, it is outside the species' current ranges, per the California Department of Fish and Wildlife. Therefore, the project is not anticipated to impact the American, obscure, western, or Crotch's bumblebees.

Monarch Butterfly: With the exception of guardrail upgrades, shoulder backing, and bus pad paving, work activities would take place on the existing roadway, with material and equipment storage occurring in previously disturbed and ruderal areas. Off-highway work would occur adjacent to the existing highway within low-quality, ruderal habitat subject to routine disturbance with limited ability to support sensitive species. One Monterey cypress tree is expected to be removed on the south side of Elkhorn Slough on the east side of the bridge. This cypress is immediately adjacent to an identified monarch overwintering site. However, given the lack of monarch sightings and the proposed avoidance and minimization measures, impacts on monarchs are not anticipated.

Southwestern Pond Turtle: Given that no work would occur within the Pajaro River or its associated riparian habitat and no observations of the species were made during surveys, no impacts are anticipated for the southwestern

pond turtle. The Federal Endangered Species Act effects determination is that the project would have no effect on the southwestern pond turtle.

Northern Legless Lizard, Burrowing Owl, and American Badger: The following species are addressed here as a group because they have similar project-related impacts and avoidance and minimization measures. While the Biological Study Area supports habitat for northern legless lizards, burrowing owls, and American badgers, the area within the Area of Potential Impact was assessed to be marginal habitat at best as it occurs next to the State Route 1 travel corridor. The disturbance of dirt and vegetation could directly impact any size burrow or crush the species. Indirect impacts could also result from noise and disturbance associated with construction, which could alter foraging and/or nesting behaviors. With the implementation of avoidance and minimization measures, impacts on the northern legless lizard, burrowing owl, and American badger are not anticipated.

Townsend's Big-Eared Bat and Other Roosting Bats: The following species are addressed here as a group because they have similar project-related impacts and avoidance and minimization measures. Although no bat roosts or bat roost signs were observed during surveys, there is a marginal potential that bats could establish new roosts under the existing bridge and/or in trees within the Area of Potential Impact. If bats were to be present during construction, indirect impacts could result from noise and disturbance associated with construction, which could alter roosting behaviors. Much like with bird species, the removal of the tree and other vegetation could directly impact roosting bats, if present. No other direct impacts are anticipated because no work is expected to occur below the bridge deck or on structures containing potential roosting habitat. The implementation of pre-activity surveys and exclusion zones (if necessary) will reduce the potential for adverse effects on roosting bat species.

Tricolored Blackbird, Southwestern Willow Flycatcher, and Least Bell's Vireo: The following species are addressed here as a group because they have similar project-related impacts and avoidance and minimization measures. There would be no impacts on riparian vegetation or potential nesting habitat for tricolored blackbirds, southwestern willow flycatchers, or least bell's vireos. Therefore, there would be no impact on these species.

Other Nesting Birds: The only work that would occur at Tembladero Slough Bridge is replacing the guardrail tie-ins to the bridge. No work would occur on top of the bridge itself. The removal of vegetation could directly impact active bird nests and any eggs or young residing in nests. Indirect impacts could also result from noise and disturbance associated with construction, which could alter perching, foraging, and/or nesting behaviors. The implementation of avoidance and minimization measures, such as appropriate timing of vegetation removal, preconstruction surveys, and exclusion zones, would reduce the potential for adverse effects on nesting bird species.

Invasive Species

Ground disturbance and other aspects of project construction could potentially spread or introduce invasive species within the Biological Study Area. Invasive plants are present at some level in all of the Biological Study Area locations and are often dominant species in some plant communities. The proposed project could cause an increase in invasive terrestrial species in communities and spread into areas not currently dominated by them. However, the proposed project also has the opportunity to reduce the abundance and spread of invasive species through avoidance and minimization efforts.

Avoidance and Minimization Measures

The measures listed below would reduce potential impacts on biological resources.

The measures have been organized by the primary resource or species they are designed to protect, but they may apply to several biological resources.

It should also be noted that the Water Pollution Control Program and many of the Best Management Practices and standard specifications outlined in Section 1.6 would avoid and minimize impacts on biological resources.

Natural Communities and Habitats of Concern

BIO-1: Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing will be installed around pickleweed mats to be protected within project limits. Caltrans-defined Environmentally Sensitive Areas will be noted on design plans and delineated in the field prior to the start of construction activities.

Wetlands, Other Waters, and Riparian Areas

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

BIO-3: During construction, all project-related hazardous material spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.

BIO-4: During construction, erosion control measures shall be implemented. Fiber rolls and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion

controls shall be maintained by the contractor on a daily basis throughout the construction period.

BIO-5: During construction, the staging areas shall conform to Best Management Practices applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.

California Red-Legged Frog

BIO-6: Applicable measures from the Programmatic Biological Opinion between Caltrans and the U.S. Fish and Wildlife Service for California red-legged frogs shall be implemented. The Programmatic Biological Opinion contains an extensive list of measures for each phase of the construction period. Some of the notable measures are summarized below:

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

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

- Preconstruction surveys must be completed 48 hours before any construction work starts. The surveys shall include identification, appropriate treatment, and relocation of California red-legged frogs.

- Biologists to conduct worker environmental awareness training for construction personnel.

- 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 habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures.

- 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 debris shall be removed from work areas.

- All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from riparian habitat or water bodies and not in a location from which a spill would drain directly toward aquatic habitat unless otherwise preapproved by the necessary agencies.

- Habitat contours shall be returned to a natural configuration at the end of the project activities.

- The number of access routes, the size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project.

- Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal.

- To control sedimentation during and after project construction, Caltrans shall implement Best Management Practices outlined in any authorizations or permits issued under the authority of the Clean Water Act received for the project.

- If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system.

- Unless approved by the Service, water will not be impounded in a manner that may attract California red-legged frogs.

- A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs.

- The fieldwork code of practice developed by the Declining Amphibian Task Force shall be followed at all times to prevent the introduction of diseases.

- Avoid using herbicides and follow appropriate protocols if herbicides must be used.

- 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 will consult the National Weather Service 24-hour forecast daily. If there is over a 70 percent chance of precipitation forecasted, the designated biologist will survey the work area to ensure that special-status amphibians have been cleared prior to ground disturbance beginning that day. No work will occur in the project area when there is over a 70 percent chance of greater than 0.5-inch precipitation during a 24-hour period. If an unpredicted rainfall event begins while construction activities are in progress, Caltrans will suspend all work activities until the designated biologist surveys the work area to ensure that special-status amphibians have been cleared.

Coast Range Newt

BIO-7: Before the start of ground disturbance, a Caltrans biologist will conduct a preconstruction survey at locations with suitable coast range newt habitat.

BIO-8: If any individuals are found to be present, they will be relocated by a qualified biologist to a nearby location with suitable habitat.

BIO-9: Observations of coast range newts will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

Monarch Butterfly

BIO-10: Tree removal should occur from April to October, outside the monarch overwintering period (November through March), to avoid impacts on potential overwintering monarchs. If tree removal is expected to occur during the overwintering period, then a survey for monarchs should be conducted by a Caltrans biologist no more than 48 hours in advance. If surveys find overwintering monarchs in the tree proposed for removal, technical assistance with the U.S. Fish and Wildlife Service will be initiated.

Northern Legless Lizard, Burrowing Owl, and American Badger

BIO-11: A preconstruction survey will be conducted no less than 14 days and no more than 30 days prior to any construction activities or any project activity likely to impact the burrowing owl or American badger. The status of all dens will be determined and mapped. If potential dens that show signs of recent use are found within the footprint of the activity, they shall be monitored for three days with tracking medium and/or cameras to determine current use. Tracking medium involves the use of diatomaceous earth to track an animal's tracks or footprints to determine if a den is being used. If burrowing owl and/or American badger activity is observed during this period, a no-work buffer shall be set up around the den, and the den shall be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Buffer zones and monitoring for active dens will be implemented in consultation with the California Department of Fish and Wildlife to provide species-specific protection to the den occupant(s). If active, unavoidable dens are discovered, Caltrans will consult the California Department of Fish and Wildlife for guidance.

BIO-12: Prior to construction, a qualified biologist shall conduct a worker environmental awareness training session for all construction personnel.

BIO-13: 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-14: No canine or feline pets or firearms (except those carried by law enforcement officers and security personnel) shall be permitted on construction sites in order to avoid harassing, killing, or injuring the northern legless lizard, burrowing owl, and/or American badger.

BIO-15: Maintenance and construction excavations greater than 2 feet deep shall be covered (such as with plywood, sturdy plastic, steel plates, or equivalent), filled at the end of each working day, or have earthen escape ramps no greater than 200 feet apart to prevent trapping sensitive species.

BIO-16: All construction pipes, culverts, or similar structures with a diameter of 3 inches or greater stored in the construction site overnight will be thoroughly inspected for burrowing owls and/or American badgers prior to being buried, capped, or otherwise used or moved. If a burrowing owl or American badger is discovered inside a pipe, the pipe shall not be moved until the species moves during its normal activity. If the burrowing owl or American badger is in direct harm's way, the pipe may be moved to a safe location one time under the direct supervision of a qualified biologist.

Townsend's Big-Eared Bat and Other Roosting Bats

BIO-17: The tree scoped for removal should be removed between October 31 and March 1 to avoid impacting bats during the critical maternity seasons and to ensure the survival of first-year bats. If tree removal must occur within the maternity roosting season, a qualified biologist will conduct a survey for bats that could be using the tree for roosting habitat no more than three days prior to tree removal.

BIO-18: Night work near suitable structures shall be scheduled to occur from September 2 to February 14, outside of the typical bat maternity roosting season, if possible, to avoid potential impacts on roosting bats.

BIO-19: If construction activities are proposed to occur within 100 feet of potential habitat during the bat maternity roosting season (February 15 to September 1), a bat roost survey shall be conducted by a biologist determined qualified by Caltrans within 14 days prior to construction. If an active bat roost is found, an appropriate buffer shall be established based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that roosting activity has stopped.

Other Nesting Birds

BIO-20: Prior to construction, vegetation removal shall be scheduled to occur from October 1 to February 13, outside of the typical nesting bird season, to avoid potential impacts on nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat, a nesting

bird survey shall be conducted by a biologist determined qualified by Caltrans no more than three days prior to construction. If an active nest is found, an appropriate buffer based on the habits and needs of the species will be established. The buffer area shall be avoided until a qualified biologist has determined that juveniles have fledged and are no longer reliant on the nest.

Invasive Species

BIO-21: During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.

BIO-22: Only clean fill shall be imported. When practicable, invasive exotic plants on the project site shall be removed and properly disposed of. All invasive vegetation removed from the construction site shall be taken to a landfill to prevent the spread of invasive species. If the soil from weedy areas must be removed off-site, the top 6 inches containing the seed layer in areas with weedy species shall be disposed of at a landfill. The inclusion of any species that occurs on the Cal-Invasive Plant Council's Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project shall be avoided.

BIO-23: To minimize the introduction of invasive plant species, all vehicles, machinery, and equipment shall be in a clean and soil-free condition before entering the project limits. Construction equipment shall be certified as "weed-free" by Caltrans before entering the construction site.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report, Archaeological Survey Report, and Finding of No Adverse Effect (all dated February 2024), the following significance determinations have been made:

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

Affected Environment

Caltrans implemented several methods to support studies and identify the affected environment.

In April 2022, Caltrans sent letters to the Native American Heritage Commission, requesting a search of the Sacred Lands Files as well as a list of Native American individuals who are familiar with the project area and may have information pertinent to cultural resource studies. In May 2022, the Native American Heritage Commission responded to inform Caltrans that the Sacred Lands File search was positive for cultural resources. They also provided a list of Native American tribes and individuals who may have knowledge of cultural resources in the proposed project area.

Native American consultation is required under state law, Assembly Bill 52 (Public Resources Code 21080.3.1). In May 2022, Caltrans sent letters to the list of individuals provided by the Native American Heritage Commission to initiate consultation under Assembly Bill 52 and Section 106 of the National Historic Preservation Act. The letter included a project description and mapping indicating where the project proposes work and a list of known cultural resources found within the project limits.

In July 2022, Caltrans held a virtual meeting with tribal consultation members. Caltrans provided additional information to tribal consultation members upon request, and as of January 2024, no comments or concerns have been received from the consultation group. Consultation is ongoing and will continue throughout the project and as requested by any tribal consultation member.

In accordance with the Section 106 Programmatic Agreement between Caltrans, the Federal Highway Administration, and the California State Historic Preservation Officer, the Area of Potential Effect was established to include all potential project activities and the entirety of archaeological resources determined to be eligible for listing in the National Register of Historic Places.

The Area of Direct Impact was established as:

- The paved roadway and the area are approximately 4 feet beyond the edge of the pavement.
- In areas adjacent to or within archaeological sites, the Area of Direct Impact consists of only the paved roadway and does not extend past the edge of the pavement.
- In areas where guardrails would be modified or replaced, the Area of Direct Impact also includes the guardrail and adjacent space beyond the guardrail.

Architectural History

Architectural history studies conducted for the project found that the project is not anticipated to adversely affect any historical architectural resources. There are seven bridges at five locations within the Area of Potential Effect. All these structures have been previously evaluated and determined to be ineligible for listing in the National Register of Historic Places or California Register of Historical Resources (Category 5 bridges). A reclamation ditch that crosses the Area of Potential Effect has also been previously evaluated and determined not to be eligible for listing. No impacts on historical resources are anticipated as a result of this project.

Archaeology

Several methods were implemented as part of archaeological studies for this project: a records search at the Central Coast Information Center and the Caltrans Cultural Resources Database; a review of historical mapping, aerials, and assessor's records; Native American consultation; a buried site sensitivity study; an archaeological survey; and an Archaeological Survey Report.

There are five archeological sites in the Area of Potential Effect, four of which have undergone previous studies and have been found eligible for inclusion in the National Register of Historic Places. Due to the nature of the current project's ground-disturbing activities and the level of disturbance from the construction and ongoing maintenance of the highway, the potential for encountering intact cultural deposits within the Area of Direct Impact is considered to be low. By establishing Environmentally Sensitive Area delineation, historical properties would be protected from inadvertent project effects or being accessed from the highway. Project activities within the Environmentally Sensitive Area locations would stay within the existing highway infrastructure and involve only cold planing and surface work.

One site would be protected in its entirety by Environmentally Sensitive Area fencing during the project and would be considered eligible for the National Register of Historic Places for this project's purposes, pursuant to the Section 106 Programmatic Agreement between Caltrans, the Federal Highway Administration, and the California State Historic Preservation Officer.

Environmental Consequences

Pursuant to the Section 106 Programmatic Agreement between Caltrans, the Federal Highway Administration, and the California State Historic Preservation Officer, Caltrans has determined that a Finding of No Adverse Effect with Standard Conditions in an Environmentally Sensitive Area is appropriate for this undertaking. The project is not anticipated to impact cultural resources because the project's design would allow for the avoidance of the identified cultural resources within the project limits. The

implementation of the proposed avoidance and minimization measures would help to further reduce the potential for any impacts on cultural resources.

Avoidance and Minimization Measures

The following measure would help reduce the potential for any impacts on archaeological resources.

CUL-1: An Environmentally Sensitive Area Action Plan has been prepared for this project. This plan would include items such as:

- Methods for Environmentally Sensitive Area Delineation and Fencing.
- General archaeological and Native American monitoring procedures during ground-disturbing activities associated with the project.
- Protocol for inadvertent discoveries of potentially significant cultural materials from known or unidentified resources.
- Treatment of human remains if they were to be discovered during the course of the project.
- Responsible parties for all aspects of the action plan.
- Protocol for the event of an inadvertent violation of the Environmentally Sensitive Area Action Plan during the course of the project.

2.1.6 Energy

Caltrans incorporates energy efficiency, conservation, and climate change measures into transportation planning, project development, design, operations, and maintenance of transportation facilities, fleets, buildings, and equipment to minimize the use of fuel supplies and energy sources and reduce greenhouse gas emissions. The project is not capacity increasing, and, therefore, the operation would not increase energy usage.

Energy usage would be required during construction but would be minimized whenever possible through the recycling of materials and the implementation of greenhouse gas reduction strategies. Replacing or repairing the existing highway facilities is needed to prevent the undermining of the roadway and maintain the safety and reliability of the State Route 1 corridor.

The following significance determinations have been made:

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

2.1.7 Geology and Soils

Considering the information in the Geologic Hazards Report dated January 2024, along with the Paleontological Identification Report dated November 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 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?	**Less Than Significant Impact**
iv) Landslides?	**No Impact**
b) Result in substantial soil erosion or the loss of topsoil?	**Less Than Significant Impact**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	**Less Than Significant Impact**
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	**No Impact**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**No Impact**

Affected Environment

The northern portion of the project limits is located about 4 miles east of the Zayante-Vergeles fault zone, which may be potentially active according to archived documentation on the California Geological Survey's Alquist Priolo Site Investigation Reports online database and the U.S. Geological Survey's online Quaternary Fault and Fold Database of the U.S. The most active fault zone, the San Andreas Fault, is about 6.7 miles east of the project limits.

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

The Geologic Hazards Map Geographic Information Systems Application from Monterey County's website contains liquefaction data along State Route 1. The Geologic Hazards Map indicates certain locations that are susceptible to liquefaction, as shown in Table 2.1. Monterey County's online Geologic Hazards Map also provides a rating of soil erosion for sections of State Route 1, which can be found in Table 2.2.

Table 2.1 Sumary of Liquefaction Potential

Post Mile Start	Post Mile End	Liquefaction Potential
90.98	92.0	Moderate to High
92.0	95.9	High
95.9	96.4	Low
96.4	98.35	High
98.35	101.3	Low
101.3	102.031	High

Table 2.2 Summary of Soil Erosion Potential

Post Mile Start	Post Mile End	Soil Erosion Potential
90.98	94.73	Moderate
94.73	95.31	Low
95.31	95.72	Moderate
95.72	96.4	Low
96.4	97.25	Moderate
97.25	97.55	Low
97.55	97.81	Moderate
97.81	98.38	Low
98.38	98.74	High
98.74	98.89	Low
98.89	99.0	High
99.0	99.24	Moderate
99.24	101.3	Low to Moderate
101.3	102.031	High

Upon review of the geologic maps available on the U.S. Geological Survey's database, all proposed improvements in the project limits are predominantly situated on structural fill underlaid with stream fill alluvium and terraces. Both geologic units are relatively stable but are susceptible to liquefaction, as previously discussed.

State Route 1 within the project limits is predominantly supported by structural fill per Caltrans standard specifications. Unified Soil Classification data from the U.S. Department of Agriculture's soil survey database shows the project limits have a minor amount of high plasticity surficial clays but may not pose substantial risks to life or property considering the proposed improvements. Also, based on the U.S. Department of Agriculture's soil survey database, the soil for the entire project area on State Route 1 is very limited for the use of septic tanks and other alternative wastewater disposal systems.

The alignment of State Route 1 is mostly on gently sloping terrain with minimal landslide risk. According to the California Geological Survey landslide inventory database and the Geologic Hazards Map application from the Monterey County Geographic Information Systems Department, landslide hazards are low. Both seismic and/or heavy rainfall events could contribute to landslide hazards at this location.

Because paleontological resources would only be affected in areas where ground disturbance would impact native sediments, the review of geological mapping for paleontological resources focused specifically on areas that would involve ground disturbance. Published geologic mapping indicates that the project elements requiring ground disturbance are underlain primarily by Holocene-age alluvial and fluvial sediments of the Pajaro and Salinas Rivers and their tributaries, as well as dune sand and eolian sand deposits. All of these units have a low paleontological potential rating.

Environmental Consequences

While the project has areas rated as high risk for liquefaction and soil erosion potential, this project is not expected to further exacerbate these risks and would be designed to account for soil conditions. Proposed work at these spot locations would include rehabilitating pavement, upgrading guardrail and guardrail end treatments, replacing sign panels, and installing traffic management system elements and bus pads.

The project is unlikely to affect paleontological resources because no sediments with a high paleontological potential ranking would be disturbed by project construction.

Avoidance and Minimization Measures

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

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change Technical Report dated January 2024 and the Air Quality, Greenhouse Gas, Noise, and Water Quality Memorandum dated April 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**Less Than Significant Impact**

Affected Environment

A greenhouse gas emissions inventory estimates the amount of greenhouse gases discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual greenhouse gas emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. 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, as required by Health and Safety Code Section 39607.4. Cities and other local jurisdictions may also conduct local greenhouse gas inventories to inform their greenhouse gas reduction or climate action plans.

The California Air Resources Board sets regional greenhouse gas reduction targets for California's 18 Metropolitan Planning Organizations to achieve through planning future projects that will cumulatively achieve those goals and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels.

The applicable Metropolitan Planning Organization for the proposed project location is the Association of Monterey Bay Area Governments. The Association of Monterey Bay Area Governments' Metropolitan Transportation Plan/Sustainable Communities Strategy for the project area is the "2045 Metropolitan Transportation Plan/Sustainable Communities Strategy: Moving Forward." Implementation of the plan and strategy is anticipated to achieve a 6 percent per capita reduction by 2035. The proposed project, however, is not included in the strategy.

The regional transportation planning agency for the proposed project is the Transportation Agency for Monterey County. The Transportation Agency for Monterey County's 2022 Regional Transportation Plan presents goals, policy objectives, and performance measures. Notable goals and policies relevant to transportation projects include:

- Goal 3: Environmental Stewardship – Protect and Enhance the County's Built and Natural Environment.

- Policy 3.1: Reduce greenhouse gas emissions consistent with regional targets.

The Open Space and Conservation Element of the Monterey County 2010 General Plan, amended in 2020, contains numerous air quality goals and policies to reduce greenhouse gas emissions and vehicle miles traveled. Notable goals and policies relevant to transportation projects include:

- Goal OS-10: Provide for the protection and enhancement of Monterey County's air quality without constraining routine and ongoing agricultural activities.

- Policy OS-10.2: Mass transit, bicycles, pedestrian modes of transportation, and other transportation alternatives to automobiles shall be encouraged.

- Policy OS-10.14: The County of Monterey shall require that construction contracts be given to those contractors who show evidence of the use of soot traps, ultra-low sulfur fuels, and other diesel engine emissions upgrades that reduce PM10 emissions to less than 50 percent of the statewide PM10 emissions average for comparable equipment.

- Policy OS-10.15: Within 12 months of the adoption of the general plan, the county shall quantify the current and projected (2020) greenhouse gas emissions associated with county operations and adopt a greenhouse gas reduction plan for county operations. The goal of the plan shall be to reduce greenhouse gas emissions associated with county operations by at least 15 percent less than 2005 emission levels. Potential elements of the county operations greenhouse gas reduction plan shall include, but are not limited to, the following measures:

    - An energy tracking and management system; energy-efficient lighting; a lights-out-at-night policy; occupancy sensors; heating, cooling, and ventilation system retrofits; ENERGY STAR appliances; green or reflective roofing; improved water pumping energy efficiency; a central irrigation control system; energy-efficient vending machines; preference for recycled materials in purchasing; use of low- or zero-emission vehicles and equipment; recycling of construction materials in new county construction; solar roofs;
    - conversion of fleets (as feasible) to; electric vehicles, ultra-low-emission vehicles, methanol fleet vehicles, liquid propane gas fleet vehicles, or compressed natural gas fleet vehicles.

Environmental Consequences

Operational Emissions

The purpose of the proposed project is to preserve and extend the service life of existing pavement and facilities in Monterey County; the project would not increase the vehicle capacity of the roadway. This type of project generally causes minimal or no increase in operational greenhouse gas emissions. Because the project would not increase the number of travel lanes on State Route 1, no increase in vehicle miles traveled would occur. While some greenhouse gas emissions during the construction period would be unavoidable, no increase in operational greenhouse gas emissions is expected.

Construction Emissions

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

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

Construction is expected to last for approximately 160 working days. Construction-generated greenhouse gas emissions were quantified based on project-specific construction data using the Caltrans Construction Emissions Tool, which largely models the emissions from construction equipment. Greenhouse gas emissions would total about 166 tons of carbon dioxide equivalent during this estimated 160-day construction period. Carbon dioxide equivalent is a measure used to compare emissions from various greenhouse gases based on their global warming potential. Calculating the carbon dioxide equivalent includes converting the emissions of other gases to the equivalent amount of carbon dioxide with the same global warming potential and then totaling the emissions together. For this project, the carbon dioxide equivalent calculation considers carbon dioxide and the converted equivalent amounts of methane, nitrous oxide, and hydrofluorocarbons. Note that 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, relying on limited data inputs and default modeling. In addition to construction emissions, it should be noted that traffic delays during construction may result in increased greenhouse gas emissions from vehicles and that the production and processing of construction materials such as concrete would also produce emissions.

All construction contracts include Caltrans Standard Specifications related to air quality. Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all California Air Resources Board emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce greenhouse gas emissions. Additionally, it should be noted that some construction emissions would be offset by fewer maintenance activities. Currently, maintenance needs to visit sites routinely to check on the failed or currently failing drainage systems. After project construction, there would be longer intervals between maintenance and rehabilitation activities.

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

Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

Avoidance and Minimization Measures

The following measures would be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project related to construction activities:

GHG-1: To the greatest extent possible, schedule truck trips outside of peak morning and evening commute hours.

GHG-2: For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition.
- Use the right-sized equipment for the job.
- Use equipment with newer technologies when feasible.

GHG-3: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction.

GHG-4: To the greatest extent possible, maximize the use of recycled materials.

GHG-5: To the greatest extent possible, reduce construction waste. For example, reusing or recycling construction and demolition waste reduces the consumption of raw materials, reduces waste and transportation to landfills, and saves costs.

GHG-6: Select pavement materials that lower the rolling resistance of highway surfaces as much as possible while still maintaining design and safety standards.

2.1.9 Hazards and Hazardous Materials

There are several known contamination sites within the project vicinity, such as the National Refractory Site, the Moss Landing Power Plant, and a recent spill site just south of the State Route 1/State Route 129 intersection. However, none of these sites would have the potential to impact this project.

Potential issues related to hazardous waste and materials that may be encountered during project construction include treated wood waste, aerially deposited lead-contaminated soil, and yellow thermoplastic or traffic stripe. Each of these issues is routinely encountered on Caltrans construction projects and can be addressed with the implementation of standard special provisions that have been developed for the management and disposal of these materials. The project hazardous waste specialist will work with the project design team to ensure the appropriate standard special provisions are included in the construction contract.

For the management of aerially deposited lead-contaminated soils, once more details about the limits of project earthwork are known during the project design phase, a preliminary site investigation will be completed, if needed, to investigate the nature and extent of aerially deposited lead-contaminated soil within the project limits. The standard special provision for the management of aerially deposited lead-contaminated soil will be developed based on the results of the study.

With the implementation of Caltrans' Best Management Practices, standard specifications, and standard special provisions for the management and disposal of routine hazardous waste issues, the proposed project would not create a substantial hazard to the public or environment.

The project is along a rural highway with few public services aside from recreational opportunities. There are no schools or airports within 0.25 mile and 2 miles, respectively, of the project. State Route 1 is listed as a primary evacuation route in the North County Region Evacuation Guide. However, the traffic management plan would account for emergency evacuations, and, therefore, the evacuation plan would not be impaired. The project would also not change the fire risk in the area.

Considering this information and the information in the Hazardous Waste Technical Memorandum dated November 2022, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**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 0.25 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**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	**No Impact**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**No Impact**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	**No Impact**

2.1.10 Hydrology and Water Quality

The receiving water bodies in the vicinity of the project limits are the Tembladero Slough, Moro Cojo Slough, Elkhorn Slough, Bennett Slough, and Pajaro River. The project is within the Upper Salinas Valley Hydrologic Area

in the Salinas Hydrologic Unit. The proposed project could directly discharge stormwater within the project limits into the receiving water bodies identified above. However, by incorporating appropriate engineering design and robust stormwater Best Management Practices during construction, minimal, short-term water quality impacts are anticipated. Additionally, the project contractor will prepare a site-specific Water Pollution Control Plan approved by Caltrans.

The proposed project does not consist of a longitudinal encroachment or a significant encroachment on the base floodplain as defined in Section 650.105q of the Code of Federal Regulations 23. The project would rehabilitate pavement and replace or upgrade existing highway facilities. This work would not impact the floodplain because the improvements would not cause an increase in roadway elevation or alter the natural flow of the floodplain.

Considering the information in the Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memorandum dated April 2023, along with the Location Hydraulic Study dated November 2023, the following significance determinations have been made:

Question—Would the project:	**CEQA Significance Determinations for Hydrology and Water Quality**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	**No Impact**
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	**No Impact**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation onsite or offsite;	**No Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
(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**

2.1.11 Land Use and Planning

The project would not change the location, function, or capacity of State Route 1 and would not physically divide an established community. The project would not conflict with the Monterey County General Plan, Monterey County's North County Land Use Plan, or any other policy or regulation meant to avoid or mitigate an environmental effect. See Appendix B for the coastal policy analysis.

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

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

2.1.12 Mineral Resources

Given that the project is limited to repairing and replacing existing facilities, the project would not involve the removal or extraction of mineral resources, and, therefore, there is no potential for the loss of valuable mineral resources.

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

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

2.1.13 Noise

Considering the information in the Air Quality, Greenhouse Gas, Noise, and Water Quality Technical Memorandum dated April 2023, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**Less Than Significant Impact**
b) Generation of excessive groundborne vibration or groundborne noise levels?	**Less Than Significant Impact**
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	**No Impact**

Affected Environment

The project limits span about 11 miles, with the land immediately on either side of the road consisting of predominantly undeveloped farm and agricultural land. A residential community is located at post mile 95.2, a hotel at post mile 95.3, and a mobile home park, Moss Landing Park, at post mile 98.55. No hospitals, convalescent homes, or other facilities that house

sensitive receptors overnight were discovered within the project limits during review.

Environmental Consequences

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

Local noise levels in the vicinity of construction would inevitably experience a short-term increase due to construction activities. The amount of construction noise would vary with the particular activities and associated models and types of equipment used by the contractor. Caltrans policy states that normal construction equipment should not emit noise levels greater than 86 A-weighted decibels at 50 feet from the source during the period of 9 p.m. to 6 a.m.

Cold planing and paving operations would require nighttime work due to daytime traffic conditions. Other work elements are anticipated to be completed during the day to the maximum extent feasible. Nighttime work can adversely impact residents' normal sleep activities. With the implementation of the avoidance and minimization measures described below, potential impacts at any given sensitive receptor location are not expected to last very long.

Avoidance, Minimization, and/or Noise Abatement Measures

The following avoidance and minimization measures would further reduce the potential for impacts on local noise levels.

NOISE-1: Notify the public in advance of the construction schedule when construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice shall be given two weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The Caltrans District 5 Public Information Office posts notice of the proposed construction and potential community impacts after receiving notice from the resident engineer.

NOISE-2: The contractor is to develop a Noise Control Plan and submit it to district noise staff for review. District noise staff will be responsible for obtaining a nonstandard special provision addressing the requirements of the Noise Control Plan.

NOISE-3: Shield loud pieces of stationary construction equipment with sound barriers if complaints are received.

NOISE-4: Locate portable generators, air compressors, etc., as far away from sensitive noise receptors as feasible.

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

NOISE-6: Use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational. Internal combustion engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.

NOISE-7: Consult district noise staff if complaints are received during the construction process.

The following Caltrans Standard Specification for Noise Control will also be implemented to reduce impacts related to nighttime work.

NOISE-8: If nighttime construction is necessary, the noisiest construction activities should be done as early in the evening as possible. Caltrans Standard Specifications (Section 14-8.02) require the contractor to control and monitor noise resulting from work activities and not to exceed 86 A-weighted decibels maximum sound level at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

2.1.14 Population and Housing

The project would not change the capacity or function of State Route 1 and would, therefore, not influence population growth. Considering this information, the following significance determinations have been made:

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

2.1.15 Public Services

Considering that the project would not trigger the need for new or modified public services, the following significance determinations have been made:

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

2.1.16 Recreation

This project would preserve and extend the service life of the existing pavement and facilities and would not change the capacity or function of the highway. The project would, therefore, not influence the use of local recreational facilities.

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

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

Question—Would the project:	CEQA Significance Determinations for Recreation
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 purpose of this project is to preserve and extend the service life of the existing pavement and facilities; therefore, the project would not change the function of the highway. Because the project would not increase the capacity of the highway, it would not influence vehicle miles traveled. The project, therefore, would not conflict with relevant transportation programs, plans, ordinances, or policies. See Appendix B for the coastal policy analysis completed for this project.

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

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

Affected Environment

The proposed project spans approximately 11.05 miles along State Route 1 in Monterey County, from 0.5 mile north of the Molera Road Overcrossing to the Monterey/Santa Cruz county line. From post mile R90.98 to post mile R92.8, State Route 1 is a four-lane access-controlled freeway consisting of 12-foot-wide travel lanes with paved shoulders that vary from 5 to 8 feet in width. For

the remainder of the project, State Route 1 is a two-lane highway. State Route 1 serves as the main connection between Santa Cruz and Monterey. The corridor is also the main coastal route between the San Francisco Bay Area and the Big Sur coast. State Route 1 serves local and interregional traffic, which primarily includes recreational, local commuters, and limited commercial users.

Environmental Consequences

Highway reliability would be improved by preserving and extending the service life of the existing pavement and facilities, which, in the long term, would increase the susceptibility of the highway. There would be traffic delays during construction due to temporary closures and ramp closures. On State Route 1, there would be at least one lane open in each direction at all times. However, traffic stops and detours would be executed in accordance with the transportation management plan. Emergency services would be notified of potential disruptions, delays, or detours in advance to minimize impacts on emergency access. During construction, there would be intermittent single-lane closures as well as connector or ramp closures. There are no anticipated freeway closures for this project.

Avoidance and Minimization Measures

The following avoidance and minimization measure would further reduce the potential for impacts on transportation.

TRAFFIC-1: A traffic management plan will be prepared to address any potential traffic delays on State Route 1 that may occur during project construction due to temporary closures on either side of the highway. This would ensure that coastal access via State Route 1 would be maintained at all times throughout the construction period and would account for emergency access and limit delays. Traffic control during construction will be handled by changeable message signs, construction area signs, and lane closures. A public awareness campaign will be conducted. The construction work zone speed limit will be reduced by 10 miles per hour in compliance with the California Manual for Setting Speed Limits.

2.1.18 Tribal Cultural Resources

Considering the information in the Archaeological Survey Report and Finding of No Adverse Effect, both dated February 2024, the following significance determinations have been made:

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

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	**Less Than Significant Impact**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**Less Than Significant Impact**

Affected Environment

Caltrans has implemented several methods to support studies and identify the affected environment for tribal cultural resources.

In April 2022, Caltrans sent letters to the Native American Heritage Commission, requesting a search of the Sacred Lands Files as well as a list of Native American individuals who are familiar with the project area and may have information pertinent to cultural resource studies. In May 2022, the Native American Heritage Commission responded to inform Caltrans that the Sacred Lands File search was positive for cultural resources, as well as providing a list of Native American tribes and individuals who may have knowledge of cultural resources in the proposed project area.

Since the CEQA environmental document for this project is a Focused Initial Study, Native American consultation is required under state law Assembly Bill 52 (Public Resources Code Section 21080.3.1). In May 2022, Caltrans sent letters to the list of individuals provided by the Native American Heritage Commission to initiate consultation under Assembly Bill 52 and Section 106 of the National Historic Preservation Act. The letter included a project description, as well as mapping indicating where the project proposes work and a list of known cultural resources found within the project limits.

In July 2022, Caltrans held a virtual meeting with tribal consultation members. Caltrans provided additional information to tribe members upon request, and as of January 2024, no comments or concerns have been received from the consultation group. Consultation is ongoing and will continue throughout the project and as requested by any tribal member.

Environmental Consequences

The project is not anticipated to impact tribal cultural resources because the project's design would allow for the avoidance of the identified cultural resources within the project limits. Further, the implementation of the proposed Environmentally Sensitive Area Action Plan for this project would help to further reduce the potential for any impacts on tribal cultural resources. For more information on the Environmentally Sensitive Area Action Plan, please refer to Section 2.1.5 Cultural Resources.

Avoidance, Minimization, and/or Mitigation Measures

No further avoidance and minimization measures are proposed at this time.

2.1.19 Utilities and Service Systems

Based on currently available information and preliminary site investigations conducted by the project development team, Caltrans does not expect relocations for any utilities throughout the project limits. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	**No Impact**
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	**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**

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	**No Impact**

2.1.20 Wildfire

The California Department of Forestry and Fire Protection provides a fire hazard severity zone mapping tool that helps in assessing the project location's vulnerability to future wildfire events. The fire hazard severity zones are developed using a science-based and field-tested model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Many factors are considered, such as vegetation, topography, climate, crown fire potential, ember production and movement, and the fire history of the area. There are three levels of hazards used in this mapping tool: moderate, high, and very high. These areas can fall under three different responsibility areas: Local Responsibility, State Responsibility, and Federal Responsibility. The entire project falls within the Local Responsibility Area. The Monterey County Community Wildfire Protection Plan was developed by the Fire Safe Council for Monterey County with input from agencies such as the California Department of Forestry and Fire Protection, the U.S. Forest Service, the Bureau of Land Management, and other stakeholders. The project limits predominately fall within an area of "Little or No Threat" under the Monterey County Fire Threat Rating Map, with small areas of "Moderate" to "High" rating near Moro Cojo Slough and Elkhorn Slough.

Wildfires directly affect highways by burning infrastructure such as wooden posts for signs and guardrails. Wildfires indirectly affect highways because they can contribute to landslides and flooding exposure by burning off soil-stabilizing vegetation and reducing the capacity of soils to absorb rainfall. Wildfire smoke can also affect visibility and the health of the public and Caltrans staff.

Caltrans 2023 Revised Standard Specifications Section 7-1.02M(2) mandates fire prevention procedures during construction, including a fire prevention plan. The project would not introduce new fire-vulnerable structures into the project area and is not anticipated to exacerbate the impacts of wildfires intensified by climate change or be any more susceptible to wildfire damages than under the current conditions.

Considering this information, along with the information in the Climate Change Technical Report dated January 2024, the following significance determinations have been made:

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

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	**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**
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**

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	**Less Than Significant Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**Less Than Significant Impact**

Affected Environment

Project work would occur from post mile R90.98 to post mile R102.031 along State Route 1 in Monterey County. Construction activities would occur entirely within the Caltrans right-of-way.

From post mile R90.98 to post mile R92.8, State Route 1 is a four-lane access-controlled freeway consisting of 12-foot-wide travel lanes with paved shoulders that vary from 5 to 8 feet in width. For the remainder of the project, State Route 1 is a two-lane highway. State Route 1 within the project limits is not classified as an Officially Designated Scenic Highway. Throughout the project limits, State Route 1 passes through a flat topography, with the predominant surrounding land use being crop production. The small community of Moss Landing is characterized by residential, commercial, and marinas along the Monterey Bay at the mouth of Elkhorn Slough, with the Moss Landing Power Plant located on the east side of State Route 1 near the intersection of Dolan Road.

Environmental Consequences

The project was evaluated for potential impacts on biological resources, as explained in Section 2.1.4, Biological Resources. There are no sensitive natural communities within the Biological Study Area, and the project would, therefore, have no permanent or temporary impacts on sensitive natural communities. Temporary and permanent impacts on jurisdictional and riparian areas are not anticipated to occur as a result of project activities. The Federal Endangered Species Act Section 7 effects determination is that the project would not affect special-status plant species or their respective habitats. While the project may affect the California red-legged frog, the impacts would be considered less than significant with the implementation of the avoidance

and minimization measures outlined in Section 2.1.4, Biological Resources, and Section 2.1.21, Mandatory Findings of Significance.

In addition, the project was evaluated for potential impacts on 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. While cultural and tribal cultural resources exist within the project limits, it was determined that the project could be designed to avoid those resources. The Environmentally Sensitive Area Action Plan would further help to prevent any impacts. The project is unlikely to affect paleontological resources because no sediments with a high paleontological potential ranking would be disturbed by project construction. Therefore, the project would not eliminate important examples of the major periods of California history or prehistory.

In response to item c) above, the project intends to rehabilitate pavement, replace sign panels, a closed-circuit television, and vehicle detection systems; upgrade curb ramps; upgrade guardrail and guardrail end treatments; conduct vegetation control; install shoulder backing; and use pavement dig outs. All of these improvements involve features essential for maintaining a quality transportation corridor for use by the traveling public. The project provides avoidance and minimization measures for aesthetics, air quality, and noise, as well as standard specifications for hazardous waste and noise. No significant impacts would result for the human environment.

The project includes avoidance and minimization measures to reduce the impact the project may have on the aesthetic environment. Although potential visual changes would occur, the same type of elements proposed with this project are seen elsewhere along the highway and are not, by themselves, inconsistent with the rural roadway character of the region or throughout the state. As a result, the traffic management system elements and other roadside elements would be subordinate to the overall experience of traveling along the highway. With the implementation of the measures proposed in Section 2.1.1, Aesthetics, the project would be consistent with the aesthetic and visual resource protection goals along State Route 1. Therefore, these visual changes would only cause a minor reduction in visual quality in the immediate project area.

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

The project would cause a temporary increase in air emissions and fugitive dust during the construction period. Ultimately, however, there would be no

difference in long-term air emissions with or without the project. Impacts due to fugitive dust generation from heavy equipment use and earthwork during construction would be considered less than significant with the implementation of standard construction dust and emission minimization practices and procedures.

Finally, the project would inevitably generate noise during the construction process. The increase in noise levels because of construction activities would not be substantial because construction activities would be temporary and intermittent. Avoidance and minimization measures to reduce disturbance due to construction noise are listed in Section 2.1.13, Noise. In addition, the project includes Caltrans Standard Specifications for noise control to minimize potential noise-related disturbances caused by construction activities.

The project would not impact water quality and is not expected to exacerbate the impacts of wildfires on human beings.

Avoidance and Minimization Measures

The following general minimization recommendation was made to reduce the overall decline in the health of the identified resource:

California Red-Legged Frog

CUMULATIVE-1: Agencies with regulatory authority over California red-legged frogs include the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. Efforts should continue to be made by these agencies to support projects that improve habitat acreage and function for these species through enhancement and creation. Providing suitable contiguous habitat would make both of these resources more resilient and resistant to decline.

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS–49 | SACRAMENTO, CA 94273–0001
(916) 654-6130 | FAX (916) 653-5776 TTY 711
www.dot.ca.gov

September 2023

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures "*No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.*"

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

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

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

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

TONY TAVARES
Director

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

Appendix B Coastal Policy Analysis

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

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those of the Coastal Zone Management Act. They include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauties; and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal Coastal Zone Management Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs. The project is subject to the Monterey County Local Coastal Program, which was certified in 1982. Local coastal programs contain the ground rules for the development and protection of coastal resources in their jurisdiction consistent with the California Coastal Act goals. A Federal Consistency Certification would be needed as well. The Federal Consistency Certification process would be initiated before the final environmental document and would be completed to the maximum extent possible during the NEPA process.

The Monterey County General Plan includes a Land Use Element, which contains a local coastal program policy document outlining coastal plan policies for the county. The project is within the North County Land Use Planning Area, which was adopted and certified in 1988 with the Monterey County General Plan.

The following is a list of policies from Chapter 3 of the California Coastal Act (Resource Planning and Management Policies) and Monterey County's North County Land Use Plan. The relevant policies from each plan have been grouped together by subject. For each policy, a determination was made for whether the project is consistent with coastal zone policies, and a discussion is provided. Policies for resources that would not be affected by the project have not been included.

Public Access and Circulation
Relevant Policies

California Coastal Act, Chapter 3

- Section 30211 – Development Not to Interfere with Access
- Section 30223 – Upland Areas
- Section 30252 – Maintenance and Enhancement of Public Access
- Section 30254 – Public Works Facilities

North County Land Use Plan

- 3.1.2-1 – Transportation; Highway 1
- 3.1.2-4 – Transportation; Highway 1
- 4.3.6-1 – Recreation; North County Beaches and Dunes

Consistency Analysis

Traffic delays on State Route 1 may occur during project construction due to temporary closures on either side of the highway. The Traffic Management Plan proposed for the construction period would ensure that coastal access via State Route 1 would be maintained at all times. Ultimately, the project would ensure consistent coastal access via State Route 1.

No coastal policy inconsistencies are expected.

Visual and Scenic Resources
Relevant Policies

California Coastal Act, Chapter 3

- Section 30251 – Scenic and Visual Qualities

North County Land Use Plan

- 2.2.1 – Key Policy
- 2.2.2-1 – Ocean Shoreline Viewshed
- 2.2.2-2 – Coastal Scenic Resources
- 2.2.2-6 – Agricultural Land
- 2.2.3-4 – Roadway Design
- 2.2.3-5 – Utilities
- 2.2.3-6 – Native Trees

Consistency Analysis

As described in more detail in the aesthetics section (Section 2.1.1), project implementation would result in visual changes as seen from public viewpoints, such as State Route 1 and some intersecting local streets. An increased visual scale of the highway facility would primarily be due to the traffic management system elements and other roadside elements. While they would not be unexpected elements in the roadway environment, their increased size and contrasting appearance would make these otherwise visually neutral features potentially more noticeable and would contribute somewhat to the increased visual scale of the highway facility.

Although potential visual changes would occur, the same type of elements proposed with this project are seen elsewhere along the highway and are not, by themselves, inconsistent with the rural roadway character of the region or throughout the state. As a result, the traffic management system elements and other roadside elements would be subordinate to the overall experience of traveling along the highway. Although most project elements would not be uncharacteristic for the setting, viewer sensitivity may be heightened because of the project's work locations within the coastal zone.

However, Caltrans anticipates that with the implementation of the proposed avoidance and 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 to a level of less than significant. Therefore, no coastal policy inconsistencies are expected regarding scenic resources.

Based on currently available information and preliminary site investigations conducted by the project development team, Caltrans does not expect relocations for any utilities at any of the project locations. Therefore, no inconsistencies with any coastal policies regarding utilities are expected.

Archaeological and Paleontological Resources

Relevant Policies

California Coastal Act, Chapter 3

- Section 30244 – Archaeological or Paleontological Resources

North County Land Use Plan

- 2.9.2-1 – Archaeological Resources
- 2.9.2-2 – Archaeological Resources
- 2.9.2-3 – Archaeological Resources
- 2.9.2-4 – Archaeological Resources

- 2.9.3-1 – Archaeological Resources
- 2.9.3-2 – Archaeological Resources

Consistency Analysis

As described in more detail in the cultural resources section (Section 2.1.5), several known archaeological sites have either already been found as being eligible for the National Register of Historic Places or their eligibility has been assumed for this project's purposes. However, the project is not anticipated to impact cultural resources because the project's design would allow for the avoidance of the identified cultural resources within the project limits. Further, implementing the Environmentally Sensitive Area Action Plan would help to further reduce the potential for any impacts on cultural resources. Pursuant to Section 106 of the Programmatic Agreement between Caltrans and the Federal Highway Administration, Caltrans has determined that a Finding of No Adverse Effect with Standard Conditions—Environmentally Sensitive Area is appropriate for this undertaking.

As described in more detail in the geology and soils section (Section 2.1.7), the project is unlikely to affect paleontological resources because no sediments with a high paleontological potential ranking would be disturbed by project construction.

Based on these determinations, the project would be consistent with coastal policies related to archaeological and paleontological resources.

Hazards and Hazardous Waste

Relevant Policies

California Coastal Act, Chapter 3

- Section 30232 – Oil and Hazardous Substance Spills
- Section 30253 (1) – Minimization of Adverse Impacts: Geologic, Flood, and Fire Hazards.

North County Land Use Plan

- 2.8.2-1 – Hazards
- 2.8.3-A.1 – Geologic Hazards
- 2.8.3-A.4 – Geologic Hazards
- 2.8.3-A.5 – Geologic Hazards
- 2.8.3-A.7 – Geologic Hazards
- 2.8.3-B.2 – Flood Hazards

- 2.8.3-B.3 – Flood Hazards
- 2.8.3-B.4 – Flood Hazards
- 2.8.3-B.5 – Flood Hazards
- 2.8.3-C.1 – Fire Hazards
- 2.8.3-C.4 – Fire Hazards
- 2.8.3-C.5 – Fire Hazards

Consistency Analysis

There are several known contamination sites within the vicinity of the project, such as the National Refractory Site and Moss Landing Power Plant, and a recent spill site just south of the State Route 1/State Route 129 intersection. However, none of these sites would have the potential to impact this project. Implementation of Caltrans' Best Management Practices, Standard Specifications, and the measures included in the Water Pollution Control Program would limit the potential for hazardous waste spills to occur and provide instructions for the appropriate containment, cleanup, and handling of hazardous substances due to accidental spills. The project would, therefore, be consistent with California Coastal Act Policy 30232.

The project is along a rural highway with few public services aside from recreational opportunities. There are no schools or airports within 0.25 mile and 2 miles, respectively, of the project. State Route 1 is listed as a primary evacuation route in the North County Region Evacuation Guide. However, the traffic management plan would account for emergency evacuations, and therefore, the evacuation plan would not be impaired. The project would also not change the fire risk in the area.

While the project has areas rated as high risk for liquefaction and soil erosion potential, this project is not expected to further exacerbate these risks and would be designed to account for soil conditions. Proposed work at these spot locations would include rehabilitating pavement, upgrading guardrail and guardrail end treatments, replacing sign panels, and installing traffic management system elements and bus pads. For more information regarding geologic hazards, please see Section 2.1.7, Geology and Soils, of the environmental document.

Based on these determinations, the project would be consistent with coastal policies related to hazards and hazardous waste.

Air Quality and Greenhouse Gas
Relevant Policies

California Coastal Act, Chapter 3

- Section 30253 (3), (4) – Minimization of Adverse Impacts: Pollution; Energy Conservation

Consistency Analysis

The project would not add additional lanes or capacity to the highway; therefore, no long-term changes in emissions would result. By incorporating appropriate engineering design and following Best Management Practices and standard specifications during construction, minimal, short-term air quality impacts would be expected. Implementing the greenhouse gas reduction strategies listed in Section 2.1.8 would help offset greenhouse gas emissions during project construction. No coastal policy inconsistencies are expected.

Water Quality and Erosion
Relevant Policies

California Coastal Act, Chapter 3

- Section 30231 – Biological Productivity; Water Quality

North County Land Use Plan

- 2.5.2-2 – Water Quality
- 2.5.3-A.4 – Water Supply
- 2.5.3-B.1 – Water Quality; Riparian Corridors
- 2.5.3-C.6 (c) – Erosion Control Measures; Erosion Control Plan
- 2.5.3-C.6 (e) – Erosion Control Measures; Vegetation Cover Retention

Consistency Analysis

As described in more detail in the hydrology and water quality section (Section 2.1.10), the proposed project could directly discharge stormwater within the project limits into several receiving water bodies within the project limits. However, by incorporating appropriate engineering design and robust stormwater Best Management Practices during construction, minimal, short-term water quality impacts are anticipated. Additionally, the project contractor will prepare a site-specific Water Pollution Control Plan approved by Caltrans. Therefore, the project would not result in significant, long-term impacts on water quality, and no coastal policy inconsistencies are expected.

Environmentally Sensitive Habitat Areas; Biological Resources
Relevant Policies

California Coastal Act, Chapter 3

- Section 30233 – Diking, Filling, or Dredging
- Section 30236 – Water Supply and Flood Control
- Section 30240 – Environmentally Sensitive Habitat Areas; Adjacent Developments
- Section 30260 – Location or Expansion

North County Land Use Plan

- 2.3.2-1 – Environmentally Sensitive Habitat Areas
- 2.3.2-2 – Environmentally Sensitive Habitat Areas
- 2.3.2-3 – Environmentally Sensitive Habitat Areas
- 2.3.2-5 – Field Surveys
- 2.3.2-8 – Environmentally Sensitive Habitat Areas
- 2.3.2-9 – Noninvasive Plant Landscaping
- 2.3.2-10 – Rare and Endangered Bird Species
- 2.3.3-A.6 – Terrestrial Plants Habitats; Coastal Dune Habitat
- 2.2.3-B.2 – Riparian, Wetland, and Aquatic Habitats
- 2.2.3-B.5 – Riparian, Wetland, and Aquatic Habitats
- 2.2.3-B.6 – Riparian, Wetland, and Aquatic Habitats
- 2.2.3-C.2 – Terrestrial Wildlife
- 2.4.2-2 – Diking, Dredging, Filling and Shoreline Structures; Wetlands
- 2.4.2-3 – Diking, Dredging, Filling and Shoreline Structures; Marine, Estuarine, and Wetland Habitats
- 2.4.2-6 – Diking, Dredging, Filling and Shoreline Structures
- 2.4.2.3-6 – Diking, Dredging, Filling and Shoreline Structures; California Coastal Act Consistency

- 4.3.6-A.1 – Resource Conservation; Environmentally Sensitive Habitats and Wildlife

- 4.3.6-A.2 – Resource Conservation; Rare and Endangered Plant and Animal Species

Consistency Analysis

The Federal Endangered Species Act Section 7 effects determination is that the project would not affect special-status plant species. Further, the Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on Monterey spineflower critical habitat. The Biological Study Area occurs adjacent to federally designated critical habitat for the Monterey spineflower, near Moss Landing State Beach. However, the project as proposed is not expected to impact Monterey spineflower or any other special-status plant species. Avoidance and minimization measures implemented to avoid impacts on special-status plant species are detailed in Section 2.1.4, Biological Resources.

Due to a lack of suitable habitat, the Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on the following federally listed animal taxa: California tiger salamander, Santa Cruz long-toed salamander, tidewater goby, western snowy plover, southern sea otter, monarch butterfly, southwestern pond turtle, tricolored blackbird, southwestern willow flycatcher, least bell's vireo, or other nesting birds. Further, the Federal Endangered Species Act Section 7 effects determination is that the proposed project would have no effect on critical habitat for the western snowy plover and tidewater goby.

The Federal Endangered Species Act Section 7 effects determination is that the project may and is likely to adversely affect California red-legged frogs. Caltrans anticipates the proposed project would qualify for the Programmatic Biological Opinion for the California red-legged frog between Caltrans and the U.S. Fish and Wildlife Service. No California red-legged frog was observed during general wildlife surveys. However, there are known occurrence records for the California red-legged frog within the Biological Study Area and within 3 miles, per the California Natural Diversity Database. Therefore, presence within the Biological Study Area is inferred. Although breeding habitat may occur within the Area of Potential Impact at Bennett Slough, no work would occur off pavement between post miles 97.2 and 97.8; therefore, the project would not impact breeding habitat. The project would not impact designated critical habitat because none occurs within the Area of Potential Impact. The potential need to capture and relocate California red-legged frogs could subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot traffic or construction equipment. The potential for impacts on California red-legged frogs is anticipated to be low due to no observations of the species within the Biological Study Area during reconnaissance surveys; however, this could

change over time as the species could potentially disperse and/or expand populations throughout the Biological Study Area.

With the implementation of the measures included in the Programmatic Biological Opinions provided by the U.S. Fish and Wildlife Service for the California red-legged frog, along with other avoidance, minimization, and/or mitigation measures detailed in Section 2.1.4, Biological Resources, impacts to the California red-legged frog and any other special-status species would be reduced to a less than significant level, and the project would be consistent with related coastal policies.

Presumed wetlands that meet at least one wetland parameter occur at the following post miles: 94.7, 95.5-95.6, 96.5-96.6, 96.7-97.3, 97.8, 97.6-98.1, T101.4-R101.6. Wetlands that meet all three wetland parameters occur at post miles 96.6, 96.7, and 99.9. Most of these locations were sloughs and rivers, including Tembladero Slough, Moro Cojo Slough, Elkhorn Slough, Bennett Slough, and the Pajaro River, that supported more stable hydrologic conditions and provided habitat for aquatic species. The Pajaro River is a freshwater river that empties into Monterey Bay and the Pacific Ocean. Riparian vegetation adjacent to the river includes Arroyo willow, Fremont cottonwood, and blue elderberry. The river flows under the roadway within the Biological Study Area. However, work would be on paved surfaces and previously disturbed shoulder-backing areas adjacent to the road. Although jurisdictional features and riparian habitat occur within the project's Biological Study Area, Caltrans anticipates that no impacts would occur with the implementation of the proposed avoidance and minimization measures.

Overall, with the incorporation of avoidance and minimization measures, the project would be consistent with coastal policies related to wetlands, coastal environmentally sensitive habitat areas, and biological resources.

Land Use

Relevant Policies

California Coastal Act, Chapter 3

- Section 30241 (e) – Prime Agricultural Land; Maintenance in Agricultural Production

North County Land Use Plan

- 2.6.2-1 – Agriculture; Prime and Productive Farmland
- 2.6.2-6 – Agriculture; Adjacent Developments
- 4.3.5-1 – Land Use
- 4.3.5-8 – Land Use

- 4.3.5-9 – Land Use
- 4.3.6-B.1 – Agriculture
- 4.3.6-C.5 – Rivers and Immediate Shorelines

Consistency Analysis

As described in more detail in the land use and planning section (Section 2.1.11), the project would not change the location, function, or capacity of State Route 1 and would not physically divide an established community. The project would not conflict with the Monterey County General Plan or any other policy or regulation meant to avoid or mitigate an environmental effect. Therefore, in relation to land use, no coastal policy inconsistencies are expected for this project.

Appendix C Avoidance, Minimization, and/or Mitigation Summary

2.1.1 Aesthetics

Avoidance and Minimization Measures

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

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

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

VIS-3: Guardrail posts should be stained or darkened to be visually compatible with selected rural settings, as determined and approved by a Caltrans District 5 Landscape Architect.

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

VIS-5: Following construction, regrade and recontour all new construction staging areas and other temporary uses as necessary to match the surrounding pre-project topography.

VIS-6: Minor concrete vegetation control shall include aesthetic treatment to be determined and approved by a District 5 Landscape Architect.

VIS-7: All complete streets elements, including but not limited to bus stop pads, shall be designed in coordination with a District 5 Landscape Architect.

2.1.3 Air Quality

Avoidance and Minimization Measures

The following measure would avoid or minimize impacts on air quality:

AIR-1: To minimize dust emissions from the project, Section 14-9.02 (Air Pollution Control) of the 2023 Standard Specifications states that the contractor is responsible for complying with all local air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the contract, including those provided in Government Code Section 11017 (Public Contract Code Section 10231). Additionally, the project-level Stormwater Pollution Prevention Plan will address water pollution control measures that

cross-correlate with standard dust emission minimization measures such as covering soil stockpiles, watering haul roads, watering excavation and grading areas, and so on. By incorporating appropriate engineering design and stormwater Best Management Practices during construction, minimal short-term air quality impacts are anticipated.

2.1.4 Biological Resources
Avoidance and Minimization Measures

The measures listed below would reduce potential impacts on biological resources.

The measures have been organized by the primary resource or species they are designed to protect, but they may apply to several biological resources.

It should also be noted that the Water Pollution Control Program and many of the Best Management Practices and standard specifications outlined in Section 1.6 would avoid and minimize impacts on biological resources.

Natural Communities and Habitats of Concern

BIO-1: Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing will be installed around pickleweed mats to be protected within project limits. Caltrans-defined Environmentally Sensitive Areas will be noted on design plans and delineated in the field prior to the start of construction activities.

Wetlands, Other Waters, and Riparian Areas

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

BIO-3: During construction, all project-related hazardous material spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.

BIO-4: During construction, erosion control measures shall be implemented. Fiber rolls and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.

BIO-5: During construction, the staging areas shall conform to Best Management Practices applicable to attaining zero discharge of stormwater

runoff. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.

California Red-Legged Frog

BIO-6: Applicable measures from the Programmatic Biological Opinion between Caltrans and the U.S. Fish and Wildlife Service for California red-legged frogs shall be implemented. The Programmatic Biological Opinion contains an extensive list of measures for each phase of the construction period. Some of the notable measures are summarized below:

- Only U.S. Fish and Wildlife Service-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
- Ground disturbance shall not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.
- Preconstruction surveys must be completed 48 hours before any construction work starts. The surveys shall include identification, appropriate treatment, and relocation of California red-legged frogs.
- Biologists to conduct worker environmental awareness training for construction personnel.
- 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 habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures.
- 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 debris shall be removed from work areas.
- All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from riparian habitat or water bodies and not in a location from which a spill would drain directly toward aquatic habitat unless otherwise preapproved by the necessary agencies.
- Habitat contours shall be returned to a natural configuration at the end of the project activities.

- The number of access routes, the size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project.

- Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal.

- To control sedimentation during and after project construction, Caltrans shall implement Best Management Practices outlined in any authorizations or permits issued under the authority of the Clean Water Act received for the project.

- If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system.

- Unless approved by the Service, water will not be impounded in a manner that may attract California red-legged frogs.

- A U.S. Fish and Wildlife Service-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs.

- The fieldwork code of practice developed by the Declining Amphibian Task Force shall be followed at all times to prevent the introduction of diseases.

- Avoid using herbicides and follow appropriate protocols if herbicides must be used.

- 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 will consult the National Weather Service 24-hour forecast daily. If there is over a 70 percent chance of precipitation forecasted, the designated biologist will survey the work area to ensure that special-status amphibians have been cleared prior to ground disturbance beginning that day. No work will occur in the project area when there is over a 70 percent chance of greater than 0.5-inch precipitation during a 24-hour period. If an unpredicted rainfall event begins while construction activities are in progress, Caltrans will suspend all work activities until the designated biologist surveys the work area to ensure that special-status amphibians have been cleared.

Coast Range Newt

BIO-7: Before the start of ground disturbance, a Caltrans biologist will conduct a preconstruction survey at locations with suitable coast range newt habitat.

BIO-8: If any individuals are found to be present, they will be relocated by a qualified biologist to a nearby location with suitable habitat.

BIO-9: Observations of coast range newts will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

Monarch Butterfly

BIO-10: Tree removal should occur from April to October, outside the monarch overwintering period (November through March), to avoid impacts on potential overwintering monarchs. If tree removal is expected to occur during the overwintering period, then a survey for monarchs should be conducted by a Caltrans biologist no more than 48 hours in advance. If surveys find overwintering monarchs in the tree proposed for removal, technical assistance with the U.S. Fish and Wildlife Service will be initiated.

Northern Legless Lizard, Burrowing Owl, and American Badger

BIO-11: A preconstruction survey will be conducted no less than 14 days and no more than 30 days prior to any construction activities or any project activity likely to impact the burrowing owl or American badger. The status of all dens will be determined and mapped. If potential dens that show signs of recent use are found within the footprint of the activity, they shall be monitored for three days with tracking medium and/or cameras to determine current use. Tracking medium involves the use of diatomaceous earth to track an animal's tracks or footprints to determine if a den is being used. If burrowing owl and/or American badger activity is observed during this period, a no-work buffer shall be set up around the den, and the den shall be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Buffer zones and monitoring for active dens will be implemented in consultation with the California Department of Fish and Wildlife to provide species-specific protection to the den occupant(s). If active, unavoidable dens are discovered, Caltrans will consult the California Department of Fish and Wildlife for guidance.

BIO-12: Prior to construction, a qualified biologist shall conduct a worker environmental awareness training session for all construction personnel.

BIO-13: 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-14: No canine or feline pets or firearms (except those carried by law enforcement officers and security personnel) shall be permitted on construction sites in order to avoid harassing, killing, or injuring the northern legless lizard, burrowing owl, and/or American badger.

BIO-15: Maintenance and construction excavations greater than 2 feet deep shall be covered (such as with plywood, sturdy plastic, steel plates, or equivalent), filled at the end of each working day, or have earthen escape ramps no greater than 200 feet apart to prevent trapping sensitive species.

BIO-16: All construction pipes, culverts, or similar structures with a diameter of 3 inches or greater stored in the construction site overnight will be thoroughly inspected for burrowing owls and/or American badgers prior to being buried, capped, or otherwise used or moved. If a burrowing owl or American badger is discovered inside a pipe, the pipe shall not be moved until the species moves during its normal activity. If the burrowing owl or American badger is in direct harm's way, the pipe may be moved to a safe location one time under the direct supervision of a qualified biologist.

Townsend's Big-Eared Bat and Other Roosting Bats

BIO-17: The tree scoped for removal should be removed between October 31 and March 1 to avoid impacting bats during the critical maternity seasons and to ensure the survival of first-year bats. If tree removal must occur within the maternity roosting season, a qualified biologist will conduct a survey for bats that could be using the tree for roosting habitat no more than three days prior to tree removal.

BIO-18: Night work near suitable structures shall be scheduled to occur from September 2 to February 14, outside of the typical bat maternity roosting season, if possible, to avoid potential impacts on roosting bats.

BIO-19: If construction activities are proposed to occur within 100 feet of potential habitat during the bat maternity roosting season (February 15 to September 1), a bat roost survey shall be conducted by a biologist determined qualified by Caltrans within 14 days prior to construction. If an active bat roost is found, an appropriate buffer shall be established based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that roosting activity has stopped.

Other Nesting Birds

BIO-20: Prior to construction, vegetation removal shall be scheduled to occur from October 1 to February 13, outside of the typical nesting bird season, to avoid potential impacts on nesting birds. If tree removal or other construction activities are proposed to occur within 100 feet of potential habitat, a nesting

bird survey shall be conducted by a biologist determined qualified by Caltrans no more than three days prior to construction. If an active nest is found, an appropriate buffer based on the habits and needs of the species will be established. The buffer area shall be avoided until a qualified biologist has determined that juveniles have fledged and are no longer reliant on the nest.

Invasive Species

BIO-21: During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.

BIO-22: Only clean fill shall be imported. When practicable, invasive exotic plants on the project site shall be removed and properly disposed of. All invasive vegetation removed from the construction site shall be taken to a landfill to prevent the spread of invasive species. If the soil from weedy areas must be removed off-site, the top 6 inches containing the seed layer in areas with weedy species shall be disposed of at a landfill. The inclusion of any species that occurs on the Cal-Invasive Plant Council's Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project shall be avoided.

BIO-23: To minimize the introduction of invasive plant species, all vehicles, machinery, and equipment shall be in a clean and soil-free condition before entering the project limits. Construction equipment shall be certified as "weed-free" by Caltrans before entering the construction site.

2.1.5 Cultural Resources

Avoidance and Minimization Measures

The following measure would help reduce the potential for any impacts on archaeological resources.

CUL-1: An Environmentally Sensitive Area Action Plan has been prepared for this project. This plan would include items such as:

- Methods for Environmentally Sensitive Area Delineation and Fencing.
- General archaeological and Native American monitoring procedures during ground-disturbing activities associated with the project.
- Protocol for inadvertent discoveries of potentially significant cultural materials from known or unidentified resources.
- Treatment of human remains if they were to be discovered during the course of the project.
- Responsible parties for all aspects of the action plan.

- Protocol for the event of an inadvertent violation of the Environmentally Sensitive Area Action Plan during the course of the project.

2.1.8 Greenhouse Gas Emissions

Avoidance and Minimization Measures

The following measures would be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project related to construction activities:

GHG-1: To the greatest extent possible, schedule truck trips outside of peak morning and evening commute hours.

GHG-2: For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition.
- Use the right-sized equipment for the job.
- Use equipment with newer technologies when feasible.

GHG-3: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction.

GHG-4: To the greatest extent possible, maximize the use of recycled materials.

GHG-5: To the greatest extent possible, reduce construction waste. For example, reusing or recycling construction and demolition waste reduces the consumption of raw materials, reduces waste and transportation to landfills, and saves costs.

GHG-6: Select pavement materials that lower the rolling resistance of highway surfaces as much as possible while still maintaining design and safety standards.

2.1.13 Noise

Avoidance, Minimization, and/or Noise Abatement Measures

The following avoidance and minimization measures would further reduce the potential for impacts on local noise levels.

NOISE-1: Notify the public in advance of the construction schedule when construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. This notice shall be given two weeks in advance. Notice should be published in local news media of the dates and duration of proposed construction activity. The Caltrans District 5

Public Information Office posts notice of the proposed construction and potential community impacts after receiving notice from the resident engineer.

NOISE-2: The contractor is to develop a Noise Control Plan and submit it to district noise staff for review. District noise staff will be responsible for obtaining a nonstandard special provision addressing the requirements of the Noise Control Plan.

NOISE-3: Shield loud pieces of stationary construction equipment with sound barriers if complaints are received.

NOISE-4: Locate portable generators, air compressors, etc., as far away from sensitive noise receptors as feasible.

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

NOISE-6: Use newer equipment that is quieter and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators, intact and operational. Internal combustion engines used for any purpose on or related to the job shall be equipped with a muffler or baffle of a type recommended by the manufacturer.

NOISE-7: Consult district noise staff if complaints are received during the construction process.

The following Caltrans Standard Specification for Noise Control will also be implemented to reduce impacts related to nighttime work.

NOISE-8: If nighttime construction is necessary, the noisiest construction activities should be done as early in the evening as possible. Caltrans Standard Specifications (Section 14-8.02) require the contractor to control and monitor noise resulting from work activities and not to exceed 86 A-weighted decibels maximum sound level at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

2.1.17 Transportation

Avoidance and Minimization Measures

The following avoidance and minimization measure would further reduce the potential for impacts on transportation.

TRAFFIC-1: A traffic management plan will be prepared to address any potential traffic delays on State Route 1 that may occur during project construction due to temporary closures on either side of the highway. This would ensure that coastal access via State Route 1 would be maintained at all times throughout the construction period and would account for emergency

access and limit delays. Traffic control during construction will be handled by changeable message signs, construction area signs, and lane closures. A public awareness campaign will be conducted. The construction work zone speed limit will be reduced by 10 miles per hour in compliance with the California Manual for Setting Speed Limits.

2.1.21 Mandatory Findings of Significance

Avoidance and Minimization Measures

The following general minimization recommendation was made to reduce the overall decline in the health of the identified resource:

California Red-Legged Frog

CUMULATIVE-1: Agencies with regulatory authority over California red-legged frogs include the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. Efforts should continue to be made by these agencies to support projects that improve habitat acreage and function for these species through enhancement and creation. Providing suitable contiguous habitat would make both of these resources more resilient and resistant to decline.

List of Technical Studies Bound Separately (Volume 2)

Air Quality, Greenhouse Gas, Noise, and Water Quality Memorandum, April 2023

Climate Change Report, January 2024

Location Hydraulic Study, October 2023

Visual Impact Assessment, October 2023

Hazardous Waste Initial Site Assessment, October 2022

Paleontological Identification Report, October 2022

Natural Environment Study, February 2024

Geologic Hazards Report, January 2024

Historic Property Survey Report, February 2024

Cumulative Impact Assessment, February 2024

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

- Archaeological Survey Report, February 2024
- Attachments 5, 6, 7, and 9 of the Historic Property Survey Report.

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

Lara Bertaina
District 5 Environmental Division
California Department of Transportation
50 Higuera Street, San Luis Obispo, 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: Moss Landing CAPM

General location information: On State Route 1 in Monterey County

District number-county code-route-post mile:05-MON-1-PM R90.98-R102.031

Project ID number: 0519000034