Big Creek to Carmel Drainage Restoration

On State Route 1 in Monterey County
05-MON-1-PM 27.76-70.87
Project ID Number 0521000006
State Clearinghouse Number 2022110242

Initial Study
with Mitigated Negative Declaration

Volume 1 of 2

Prepared by the
State of California Department of Transportation

December 2023

Caltrans

General Information About This Document

Document Prepared by: Enrique Huerta, Environmental Scientist

The Initial Study circulated to the public for 33 days between November 14, 2022, and December 16, 2022. Comments received during this period are included in Appendix D. Elsewhere, language has been added throughout the document to indicate where a change has been made since the circulation of the draft environmental document. Minor editorial changes and clarifications have not been so indicated.

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State Clearinghouse Number 2022110242
05-MON-1-PM 27.76-70.87
Project ID Number 0521000006

Replace or rehabilitate drainage culverts on State Route 1 from post miles 27.76 to 70.87 in Monterey County

INITIAL STUDY
with Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation
and
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
Deputy District Director Environmental, District 5
California Department of Transportation
CEQA Lead Agency

12/6/23
Date

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Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: 2022110242

District-County-Route-Post Mile: 05-MON-1-PM 27.76-70.87

EA/Project Number: EA 05-1N360 and Project ID Number 0521000006

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate six existing drainage systems at five locations on State Route 1 in Monterey County. Existing drainage systems at the proposed locations have exceeded their design life and have deteriorated or failed. The project work includes replacing or rehabilitating existing culverts and replacing or upgrading end treatments and headwalls as needed.

Determination

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

The project would have no effect on agriculture and forest resources, energy, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, transportation, tribal cultural resources, hydrology and water quality, utilities and service systems, or wildfire.

The project would have no significant effect on air quality, noise, greenhouse gas emissions, aesthetics, or cultural resources.

[The following text has been changed since the draft environmental document was circulated.] Caltrans no longer anticipates requiring mitigation for impacts related to California red-legged frogs, Smith's blue butterflies, and their respective critical habitats. Also, permanent impacts to wetlands, other waters, and riparian areas are no longer anticipated with the removal of Locations 2, 5, and 7 from the project. Only temporary impacts are currently anticipated.

With the incorporation of the mitigation measure listed below, the project would not have a significant effect on biological resources:

- To prevent a net loss of wetlands or another aquatic resource acreage, function, and value, on-site restoration and reestablishment are proposed at a 1-to-1 ratio (acreage) for temporary impacts. Please see Table 2.2 for more information on the proposed mitigation at each location.

Jason Wilkinson

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

12/6/23

Date

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (known as Caltrans) proposes the Big Creek to Carmel Drainage Restoration project on State Route 1 in Monterey County. The project would rehabilitate six existing drainage systems at five locations along the Big Sur Coast, from post mile 27.76 near Big Creek to post mile 70.87 within the City of Carmel-by-the-Sea. In this region, State Route 1, along most of the project length, is a two-lane conventional highway with 12-foot lanes. Shoulder widths vary from zero to 8 feet, with most being 4 feet or less. State Route 1 in the project vicinity generally serves local and interregional traffic, primarily including the usage of local recreational facilities, local commuters, and limited commercial users. See Figure 1-1 for the project vicinity map and Figure 1-2 for the project location map.

For the 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 this project is to rehabilitate existing drainage systems in Monterey County that have exceeded their design life, deteriorated, or failed to maintain operations and reduce maintenance on State Route 1.

1.2.2 Need

The Drainage Systems Reports that were developed by the Culvert Inspection Program identified existing culverts that need to be repaired or replaced due to issues such as deterioration, corrosion, damage, shape loss, or joint separation. If the culverts are allowed to continue to deteriorate, then undermining of the roadway will occur, and the highway will be compromised.

1.3 Project Description

[The following section has been changed since the draft environmental document was circulated.] Location 2 (post mile 29.63), Location 5 (post mile 31.73), and Location 7 (post mile 54.46) have been removed from the project.

This project proposes to rehabilitate six existing drainage systems at five locations on State Route 1 in Monterey County, from post miles 27.76 to 70.87. Existing drainage systems at the proposed locations have exceeded their design life and have deteriorated or failed. The project work would include replacing or rehabilitating existing culverts and replacing or upgrading end treatments and headwalls as needed. All existing culverts that would be replaced would be replaced via the open-cut method, also referred to as the cut-and-cover method.

For each location, open-cut construction would begin with excavating and trenching half the width of the traveled way and its nearby embankment. The existing culvert would be removed and replaced with a new culvert of equal or greater size. After the placement of the new culvert, the trench would be backfilled. The height of the cover, which is the height from the top of the new culvert to the bottom of the new pavement, determines what material would be used for backfilling. Although culverts would be replaced using the same construction method, other drainage elements proposed for each of the five locations depend on individual site conditions. The specific improvements proposed for each location are described as follows:

Location 1 at Post Mile 27.76 (Drainage System ID 440010002776):

Caltrans proposes to replace two drainage structures at post mile 27.76. For drainage structure 1A, the existing 30-inch corrugated steel pipe would be replaced with a new 30-inch reinforced concrete pipe. For drainage structure 1B, the existing 30-inch corrugated steel pipe would be replaced with a new 30-inch alternative pipe culvert. For the outlet, a new 7.5-foot-wide by 15-foot-long rock slope protection would be installed, along with a new 30-inch alternate flared end section.

Location 3 at Post Mile 30.10 (Drainage System ID 440010003010):

Caltrans proposes to replace the existing 30-inch corrugated steel pipe with a new 30-inch reinforced concrete pipe. For the inlet, the existing headwall would be replaced with a new standard headwall. For the outlet, a new 30-inch concrete flared end section and a 7.5-foot-wide by 15-foot-long rock slope protection would be installed.

Location 4 at Post Mile 30.86 (Drainage System ID 440010003086):

Caltrans proposes to replace the existing 30-inch corrugated steel pipe with three different culvert segments: two new 30-inch reinforced concrete pipes and a new 30-inch alternative pipe culvert. For the inlet, the existing headwall

would be replaced with a new headwall. For the outlet, a new standard headwall would be installed along with 4.5-foot-wide by 4.5-foot-long rock slope protection.

Location 6 at Post Mile 33.87 (Drainage System ID 440010003387):

Caltrans proposes to replace the existing 24-inch corrugated steel pipe with two different culvert segments: a new 24-inch reinforced concrete pipe and a new 24-inch alternative pipe culvert. For the inlet, a new standard headwall would be installed. For the outlet, a 24-inch high-density polyethylene down drain with 6-foot-wide by 12-foot-long rock slope protection would be installed.

Location 8 at Post Mile 70.87 (Drainage System ID 440010007087):

Caltrans proposes to replace the existing 24-inch corrugated steel pipe with a new 24-inch reinforced concrete pipe. For the inlet and outlet, the existing headwall would be replaced with a new standard headwall.

Figure 1-1 Project Vicinity Map

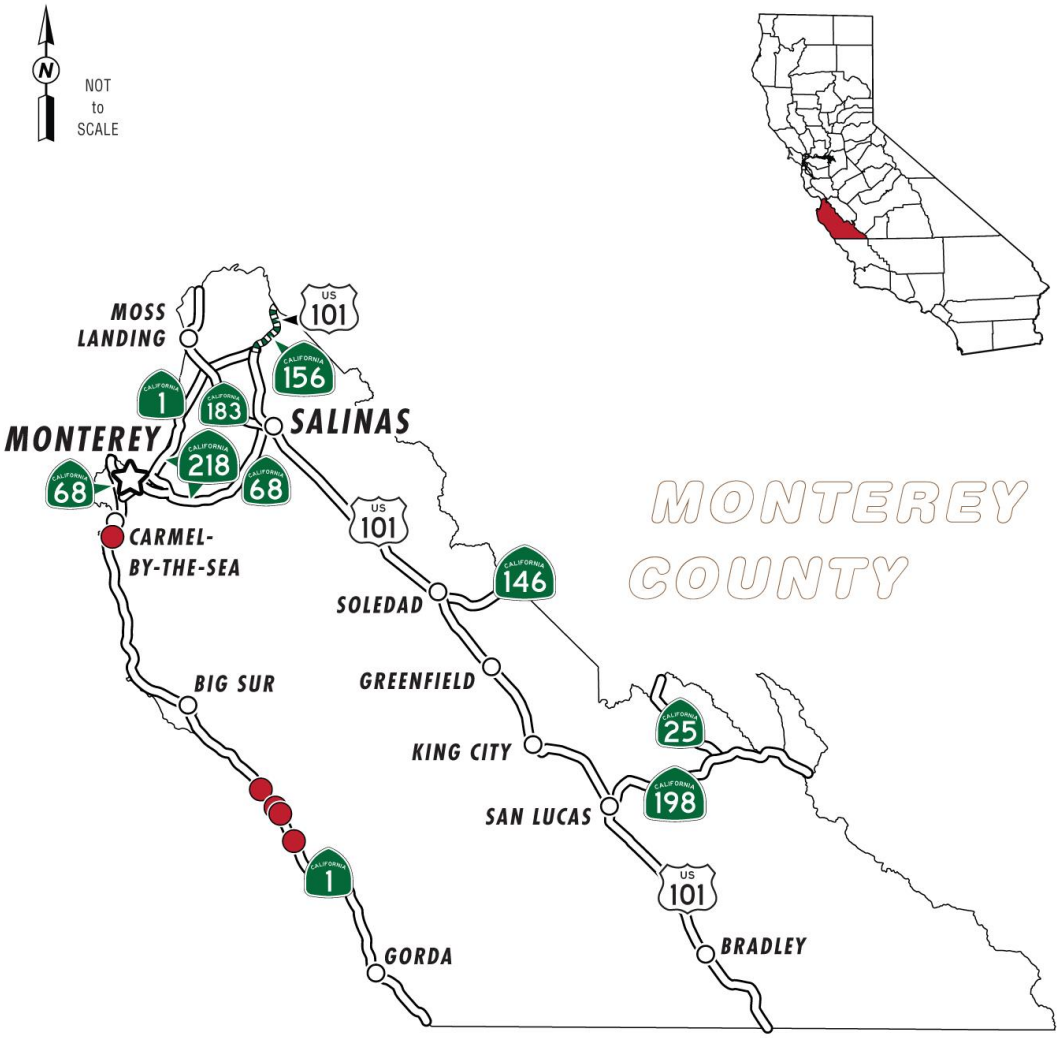
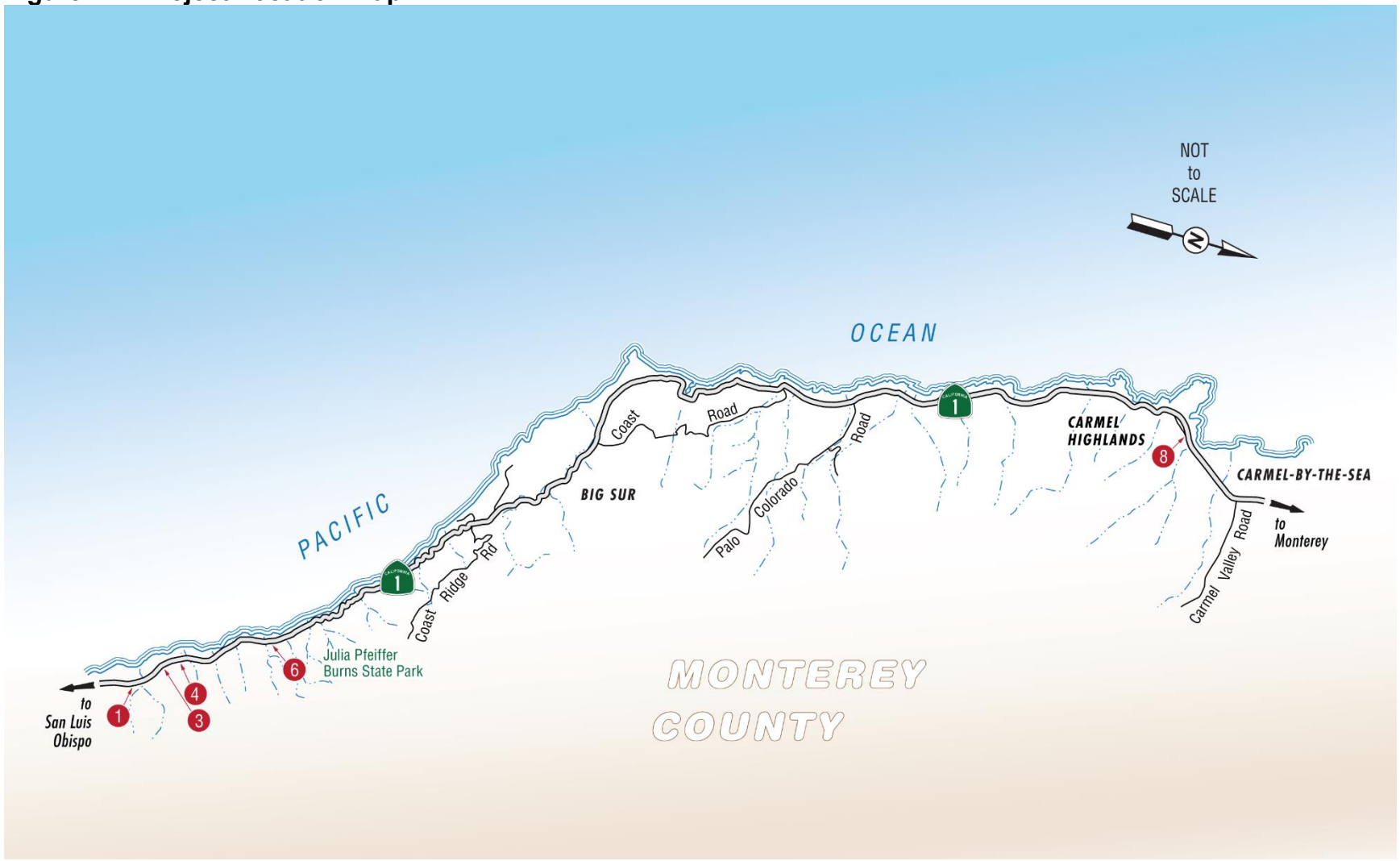


Figure 1-2 Project Location Map



1.4 Project Alternatives

The project development team is analyzing two alternatives—the Build Alternative and the No-Build (No-Action) Alternative.

1.4.1 Build Alternatives

The Build Alternative would rehabilitate drainage systems as recommended by Caltrans Central Region Hydraulics, District 5 Maintenance, and as considered by the project development team as follows:

- Six drainage systems are at five project locations on State Route 1 from post miles 27.76 to 70.87.

The rehabilitation strategy considered for each drainage system is as follows:

- Use open-cut construction to replace all six undermined culverts with similar- or larger-diameter culverts as necessary.
- Replace undermined headwalls and place new headwalls as necessary.
- Place earth filling at the culvert's inlet and outlet as necessary.
- Place rock slope protection at the culvert's inlet and outlet as necessary.
- Use one-way traffic control to facilitate construction.

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 project. These measures are listed later in this chapter under "Standard Measures and Best Management Practices Included in All Build Alternatives."

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, the nine drainage systems that Caltrans proposes to rehabilitate along State Route 1 would remain in their current condition within the project limits. The work proposed for the project would not be done. The No-Build Alternative would not address the purpose and need of the project. The condition of the culverts and drainage elements would continue to deteriorate, which could compromise and degrade the roadway. Under the No-Build Alternative, routine maintenance activities would continue.

1.5 Identification of a Preferred Alternative

[The following section has been added since the draft environmental document was circulated.]

The project development team selected the Build Alternative as the preferred alternative. The team chose the Build Alternative because it will address the purpose and need of the project.

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

[This section has been changed since the draft environmental document was circulated.] Caltrans' 2023 Standard Specifications are now available and will be used for this project.

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 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
- 20-3 Planting
- 20-4 Plant Establishment Work
- 21-2 Erosion Control Work

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

1.7 Discussion of the NEPA Categorical Exclusion

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

National Marine Fisheries Service and the U.S. Fish and Wildlife Service—that is, species protected by the Federal Endangered Species Act).

1.8 Permits and Approvals Needed

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

[The following table has changed since the draft environmental document was circulated.] A Programmatic Biological Opinion for the Smith's blue butterfly is no longer anticipated to be required. Further, Caltrans intends to request consolidation with Monterey County, and therefore, only a Coastal Development Permit from the California Coastal Commission is anticipated to be required. And finally, Programmatic Biological Opinion for the California Red-Legged Frog has been changed to a Programmatic Letter of Concurrence.

Table 1.1 Summary of Required Permits and Approvals

Agency	Permit/Approval	Status
California Coastal Commission	Coastal Development Permit	To be obtained before construction.
U.S. Army Corps of Engineers	Section 404 Permit	To be obtained before construction.
Regional Water Quality Control Board	Section 401 Permit	To be obtained before construction.
California Department of Fish and Wildlife	Section 1602 Lake and Streambed Alteration Agreement	To be obtained before construction.
U.S. Fish and Wildlife Service	Programmatic Letter of Concurrence; California Red-Legged Frog	To be obtained before construction.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the 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 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 September 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?	**Less Than Significant Impact**
c) In nonurbanized 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?	**Less Than Significant Impact**

Affected Environment

State Route 1 in Monterey County is designated as an Official State Scenic Highway, a National Scenic Byway, and an All-American Road. State Route 1 has long been recognized for its scenic qualities, and the state and national scenic designations illustrate the heightened degree of sensitivity concerning the aesthetic character of the highway. Monterey County planning policies emphasize the protection of visual resources along State Route 1 and underscore the concern and sensitivity regarding aesthetic issues along this route. The project is within the Coastal Zone, which emphasizes visual quality preservation. In addition, the Coast Highway Management Plan (Caltrans 2003), a comprehensive planning document developed with extensive community input, includes a section on identifying and preserving the scenic qualities of the route. The local communities have a history of active participation in projects involving potential changes to the visual environment.

State Route 1 in the project vicinity is a two-lane conventional highway that serves local and interregional traffic, primarily including the usage of local recreational facilities, local commuters, and limited commercial users. Viewers along State Route 1 are primarily in motor vehicles and are involved in a variety of activities, including recreation and tourism, local commuting, and limited service and commercial travel. Bicycle touring is also common within the project area. Pedestrian activity is common at the many formal and informal pullouts and vista points along the route. Non-vehicular activity is also common in the Big Sur village area. The viewer groups most affected by the project are those who travel the highway and off-roadway viewers near

the project. Viewers through the project areas generally have high expectations regarding scenic quality, and the state and federal scenic designations further heighten viewers' anticipation of scenic resources along this route. Roadside views along State Route 1 within the project area are mostly limited to the foreground and middle ground on the inland side of the road and mid-to-long-distance views toward the ocean.

The project passes through several landscape types along its length. The landform of the region is generally characterized by steep slopes and ravines forming a series of ridgelines and valleys as the mountains rise from the Pacific Ocean. The topography supports a mostly curvilinear—consisting of or bounded by curved lines—roadway, which produces views for the highway traveler ranging from close-in views of the inland slopes to mid-range coastline views and wide-open panoramas.

Throughout the region, vegetation is a primary component of visual character. State Route 1 passes through a variety of plant communities and vegetative types along the Big Sur Coast. In general, creeks and drainages hold stands of sycamore, redwood, cottonwood, and willows. Oak and other native trees are found mostly at the upper elevations, along with coastal chaparral. Although native plant communities are the most visually prevalent, exotic plants, such as pampas grass, have generally been associated with the scattered residential and commercial development along the highway through the Big Sur village area.

Along State Route 1 through the Big Sur coast, the primary developments are the roadway itself and related features, occasional roadside homesites, and tourist-oriented businesses. Along the southern end of the project limits, developments have a low to moderate visual presence in the landscape. In general, the scale and frequency of structures and other built amenities throughout the area are such that, although visible, they do not dominate the views when seen in the context of the overall landscape. The northern section of the project limits is the most developed. Residential uses are the primary development, although some tourist-oriented businesses are part of the view. Overhead utilities and roadside signage are visible elements along the route. Due to the topography throughout much of the region, cut slopes are associated with the highway facility and can often be seen from the road. Components of the existing culvert system can be seen at numerous locations along the route.

Environmental Consequences

Scenic vistas throughout the project area primarily include expansive mid-to-distant views of the Pacific Ocean, the rocky shoreline, dramatic topography and hillsides, native vegetative patterns, and undeveloped landscapes. At various locations, the project would cause vegetation removal, soil disturbance, the placement of new concrete walls and other components, engineered rock masses, on-surface pipes, and a connection apparatus.

Many of these project features would be highly visible from State Route 1 and/or roadside pullouts. The existing scenic vistas in these areas would be noticed due to the disruption of vegetative patterns, scarring of the land, and newly built elements that visually conflict with the natural scenery. The primary cause of the effect on the scenic vistas would be the color contrast between project elements, such as new down drains, rock slope protection, disturbed earth, and the nearby ground plane. Measures specifically addressing the visual contrast issue associated with this project would minimize potential effects on the scenic vista.

As previously mentioned, the entirety of the project is within an Officially Designated State Scenic Highway. Scenic resources associated with the viewing experience throughout the project area include expansive views of the Pacific Ocean, the rocky shoreline, dramatic topography and hillsides, native vegetative patterns, and undeveloped landscapes. The project would not block ocean vistas; however, other coastal scenic resources, such as views of native vegetation and undisturbed hillsides, would have a minor reduction because of the project. Measures specifically addressing this issue would minimize the noticeability of the project and reduce its potential effect on the views of native vegetation.

At several work locations, the project would require native vegetation removal, excavation and earthwork, the construction of new concrete headwalls and other features, engineered rock placements, and on-surface pipes and connectors. In some situations, due mostly to topography and view angle, some project features would not be seen from public viewpoints. However, at most locations, project components would be at least moderately visible from State Route 1 and/or roadside pullouts nearby.

The project has the potential to result in noticeable changes to the existing visual character at various project locations. Similar to the visual effects described for scenic vistas, at various locations, the visual character would undergo a minor reduction due to the disruption of vegetative patterns, scarring of the land, and newly built elements that visually conflict with the natural scenery. In addition, these newly built elements would increase the perception of “visual clutter” along the Big Sur corridor and, as such, would not support the aesthetic values expressed in the Coast Highway Management Plan and other coastal planning documents.

In most instances, the noticeability of change would be increased by the visual contrast between the color and reflectivity of the new project elements and the nearby ground cover. Measures to specifically address this visual contrast issue, however, would minimize the noticeability of the individual project elements and reduce their potential effect on the existing visual character.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would avoid or minimize impacts on the visual environment:

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

VIS-2: Revegetate all areas disturbed by the project, including but not limited to temporary access roads, staging, and other areas with native plant species appropriate to each specific work location.

VIS-3: Following construction, regrade and recontour any new construction access roads, staging areas, and other temporary uses as necessary to match the surrounding natural topography along State Route 1, avoiding unnatural-appearing remnant landforms.

VIS-4: All metal components related to visible down drains and inlets, including but not limited to corrugated metal pipes, flared end sections, connectors, anchorage systems, and cable barriers, should be darkened or colored to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the specific color.

VIS-5: All concrete components related to headwalls, drain inlet aprons, flared end sections, and other concrete elements should be colored to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the specific color.

VIS-6: The posts and beams of all new or replaced guardrails should be colored and/or darkened to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the color.

VIS-7: All rock slope protection should be placed in natural-appearing shapes rather than geometric patterns to the greatest extent possible to reduce its engineered appearance.

VIS-8: Following the placement of rock slope protection, the rock should be colored to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the specific color.

2.1.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in

assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

The project is not located near any prime farmland, unique farmland, or farmland of statewide importance and would, therefore, 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 nonagricultural 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 nonagricultural 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 this information and the information in the Air Quality, Noise, and Water Quality Technical Assessment Memorandum dated August 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**
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 project is within the North Central Coast Air Basin. The Monterey Bay Air Resources District regulates air quality in the basin. The basin is considered in attainment for all federal ambient air quality standards and non-attainment transitional for state ambient air quality standards for ozone and non-attainment for airborne particulate matter less than 10 microns in diameter (Particulate Matter 10).

Environmental Consequences

This project would not increase capacity, increase the number of lanes, or change the alignment of the highway significantly. There will be no difference in long-term air emissions with or without the project. However, there will be a temporary increase in air emissions and fugitive dust during construction. The use of heavy equipment during project construction can generate fugitive dust that may have substantial temporary impacts on local air quality if large amounts of excavation, soil transport, and subsequent fill operations are necessary. Minor earthwork would be required for the improvements associated with this project. Minimal dust generation would be expected from the earthwork component of this project.

Due to the use of standard construction dust and emission minimization practices and procedures (Caltrans Standard Specifications Section 14-9.02 Air Pollution Control), it is anticipated that project emissions of particulate matter and equipment emissions will be well within the daily thresholds of the Monterey Bay Air Resources District. Per Caltrans Standard Specifications Section 14-9.02 Air Pollution Control, the contractor is responsible for complying with all local air pollution control rules, regulations, ordinances, and statutes that apply to the work performed under the contract, including those provided in Government Code Section 11017 (Public Contract Code Section 10231).

Construction emissions are further calculated and discussed in the Greenhouse Gas section (Section 2.1.8).

Avoidance, Minimization, and/or Mitigation 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 2018 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). By incorporating appropriate engineering design and stormwater Best Management Practices during construction, minimal, short-term air quality impacts are expected.

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated November 2023, the following significance determinations have been made:

[The following checklist has changed since the draft environmental document was circulated.] Question “a.” has been changed from “Less than Significant Impact with Mitigation Incorporated” to “Less than Significant Impact.”

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic Atmospheric Administration Fisheries?	**Less Than Significant Impact**

Question—Would the project:	CEQA Significance Determinations for Biological Resources
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	**Less Than Significant Impact**
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**Less Than Significant Impact With Mitigation Incorporated**
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 Effect, identified by the Caltrans Design Engineer, includes the areas of construction, staging, stockpiling, detours, and channel modifications. From the Area of Potential Effect, the Biological Study Area was delineated. The Biological Study Area is defined as the area that may be directly, indirectly, temporarily, or permanently impacted by construction and construction-related activities. The Biological Study Area occurs on State Route 1, predominately in narrow strips between the coast ranges to the east and descending to the Pacific Ocean immediately to the west. The size of the Biological Study Area is collectively spread across five distinct locations. The entirety 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 have the potential to be affected by the project are discussed in more detail below.

Natural Communities and Habitats of Concern

[The following section has been changed since the draft environmental document was circulated.] With the removal of three locations, impacts to the following natural communities or habitats of concern are no longer anticipated: Sticky Snakeroot Herbaceous Seminatural Alliance, Smooth Horsetail Herbaceous Alliance, and Arroyo Willow Shrubland Alliance. Therefore, discussion of these communities has been removed.

Central Lucian Coastal Scrub: The Central (Lucian) Coastal Scrub best describes the dominant vegetation community present in the Biological Study Area at several of the project locations. Dominant species in this community include California sagebrush, poison oak, and seaside golden yarrow. This community is often on exposed, south-facing slopes with shallow, rocky soils. It is common on the ocean side of the Santa Lucia Range between Monterey and Point Conception.

Kikuyu Grass Herbaceous Seminatural Alliance: At several project locations, small mats of kikuyu grass are growing in the Biological Study Area. Kikuyu grass is often the dominant species within the alliance, with species such as silver lupine and sweet fennel being present in the herbaceous layer. The alliance is typical of steep coastal cliffs, bluffs, road cuts, coastal dunes, and coastal scrubs. This alliance is found directly along both sides of State Route 1 or along the ruderal/disturbed habitat along the road shoulder.

Seaside Woolly Herbaceous Alliance: The Seaside Woolly Herbaceous Alliance is the lone natural community within the project's Biological Study Area that is considered sensitive by the California Department of Fish and Wildlife. A patch of seaside woolly sunflowers is present near the culvert outlet at Location 4 (post mile 30.86). Other species present in these communities include poison oak, blackberry, and coast morning glory. This alliance is characterized by a 50 percent relative cover of seaside woolly sunflowers in the herbaceous layer.

Eucalyptus Woodlands Seminatural Alliance: At several project locations, a stand of eucalyptus is present along the southbound side of State Route 1. Trees in this stand are mature and offer quality avian habitat. The understory of this alliance is comprised mostly of herbaceous non-natives.

Blueblossom Chaparral Shrubland Alliance: At project location 4 (post mile 30.86), blueblossom chaparral occurs on both sides of State Route 1, next to the culvert inlet and outlet. Other species present include coffeeberry and California sage. This alliance is characterized by a greater than 50 percent relative cover of blueblossoms in the shrub canopy.

Cape Ivy Mats: At project location 6 (post mile 33.87), cape ivy is the sole dominant species in this habitat and does not fit the description of any vegetation alliances. Cape ivy is spread over the entire shrub and herbaceous

understory on the west-facing slope on the west side of State Route 1. Other species present in this community are similar to those of central (Lucian) coastal scrub and include blackberry, poison oak, California sage, and French broom.

Annual Non-Native Grassland: This community is found at Location 8 (post mile 70.87), along the northbound side of State Route 1, where it abuts the Caltrans property line. Dominant species include introduced grasses such as rattlesnake grass, slender wild oat, and soft chess brome. Small patches of native shrubs, such as coyote bush, are also present. Other forbs present include yellow sweetclover and poison hemlock.

Wetlands, Other Waters, and Riparian Areas

Wetlands, other waters, and riparian areas that occur along the banks of streams or rivers are resources protected under several laws and regulations, which are regulated by federal, state, and local agencies. Wetlands function to improve water quality, detain stormwater runoff, recharge groundwater, and provide wildlife habitats. Riparian habitat along streams provides cover from predators and shade, helps regulate water temperatures, and supports valuable habitat for a variety of wildlife species.

Potential jurisdictional waters were delineated for the Wetland Assessment of this project.

[The following paragraphs have been changed since the draft environmental document was circulated, with the removal of Locations 2, 5, and 7. The discussion of wetlands, other waters, and riparian areas at these three locations has been removed.]

Potential U.S. Army Corps of Engineers Other Waters were delineated at Location 4 (post mile 30.86) and Location 8 (post mile 70.87). Potential U.S. Army Corps of Engineers wetlands were delineated at Location 3 (post mile 30.10) and Location 8 (post mile 70.87), where all three wetland indicators were deemed present by Caltrans. The three wetland indicators include hydrophytic vegetation, hydric soils, and/or wetland hydrology. No other federal jurisdictional wetlands were delineated at any of the other locations due to the lack of one or more of the three wetland parameters.

California Department of Fish and Wildlife and Regional Water Quality Control Board jurisdictional areas along with California Coastal Commission single-parameter coastal zone wetlands and environmentally sensitive habitat areas (supporting the presence of at least one of the following: hydrophytic vegetation, hydric soils, or wetland hydrology) were also delineated at three of the five project locations. Location 1 (post mile 27.76) and Location 6 (post mile 33.87) lacked potentially jurisdictional waters. Each of the other proposed culvert locations was determined to fall under the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board,

California Department of Fish and Wildlife, and/or the California Coastal Commission.

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, as well as 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 57 special-status plant species and 34 special-status animal species to occur within the Biological Study Area and surrounding area. No special-status plant species were seen during the appropriately timed biological field surveys, but habitat for 25 species was recognized. The presence of two special-status animal species—the California red-legged frog and Smith's blue butterfly—was inferred during field surveys, and potential habitat was documented for four additional species.

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

California Red-Legged Frog: The California red-legged frog is a federally threatened species and is considered a Species of Special Concern by the California Department of Fish and Wildlife. The California red-legged frog uses a variety of habitats, including aquatic, riparian, and upland habitats. The California red-legged frog uses both riparian and upland habitats for foraging, shelter cover, migration, and dispersal.

[The following section has been changed since the draft environmental document was circulated, with the removal of three locations.]

No protocol surveys were conducted for the California red-legged frogs, and the species was not seen during general wildlife surveys. Suitable upland dispersal habitat may exist at Location 3 (post mile 30.10). This project location consists of a roadside seep at the culvert inlet that is regularly cleaned by Caltrans maintenance. The culvert outlet is within and next to Central Lucian Coastal Scrub and Kikuyu Grass Herbaceous Seminatural Alliance, which is unlikely to provide the cover and moisture to support the California red-legged frog. Most of the area is disturbed hillside and ruderal disturbed habitat, which does not provide upland refugia for the species. No other project locations support California red-legged frog habitat. There is no aquatic breeding habitat or critical habitat in the Biological Study Area.

Smith's Blue Butterfly: The Smith's blue butterfly is a federally endangered taxon. Host plants for Smith's blue butterflies include coast buckwheat and seacliff buckwheat. At peak flowering of their host buckwheat plants, adult Smith's blue butterflies emerge from their pupal cases for a single flight season extending from mid-June to early September. All life stages are dependent on the host plants; adults feed on the nectar and deposit eggs on

the flowers, and larvae feed on the flowers and seeds and pupate on or beneath the plants.

Botanical surveys revealed the presence of seacliff buckwheat, which is a host plant for Smith's blue butterfly, within the Biological Study Area at Locations 1, 4, and 6. All of these individuals are growing on steep, rocky, unstable west-facing slopes along the northbound lanes of State Route 1. Because of the substrate they are attached to, most are diminutive—extremely or unusually small—in size and offer no duff or collection of material beneath the plants. The hillsides these individuals are attached to subject them to a high amount of disturbance from wind exposure and erosion. Individuals are interspersed within a hillside that is not highly vegetated and, together, does not amount to a stand of seacliff buckwheat because of their sporadic distribution. Outside of the individuals observed, the surrounding hillsides appeared to contain little to no additional seacliff buckwheat.

[The following paragraphs have been added since the draft environmental document was circulated. Monarch butterflies, Crotch's bumblebees, and migratory nesting birds were not previously discussed.]

Monarch Butterfly Overwintering Population: The monarch butterfly overwintering population is a candidate to be listed under the Federal Endangered Species Act. The western population can be found overwintering along the California Coast, arriving at overwintering sites in September and forming fall aggregations (clusters) in protected forest groves of eucalyptus, pine, oaks, and cypress along the Pacific Coast from Mendocino County south to Baja California, Mexico.

Overwintering monarchs have been documented to occur near the project area, with small eucalyptus groves present at Location 4 (post mile 30.86) and Location 6 (post mile 33.87). These groves provide marginal to low-quality habitat for monarch overwintering due to their small size and position on the steep Big Sur Coast, which results in high levels of wind exposure and frequent cold temperatures. While no focused monarch roosting surveys were conducted, it is unlikely that monarchs would roost in these groves. Despite the marginal quality habitat, monarchs may be present during construction.

Crotch's bumblebee: 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. 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 inhabit grassland or scrub areas in hotter and drier environments; however, historic 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. Crotch's bumblebee nests are typically built in the spring and remain active through the summer.

No focused surveys for Crotch's bumblebees were conducted, but habitat assessments concluded that suitable nesting and foraging habitat is present.

Migratory Nesting Birds: Nesting bird species are addressed here as a group because they have similar habitat requirements, project-related impacts, and avoidance and minimization measures. Migratory nesting birds are protected by the Migratory Bird Treaty Act and California Fish and Game Code Section 3503. The project area provides suitable migratory bird nesting habitat in adjacent conifer forests and within the project study area in areas of central coastal scrub, Kikuyu grass, blue blossom chaparral, eucalyptus woodland, cape ivy mats, annual non-native grassland, and seaside woolly sunflower. Several species of birds were seen in the Biological Study Area during surveys. The Biological Study Area also provides suitable foraging habitat.

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 38 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, 17 were rated as moderate invasiveness, and 14 were observed with an invasiveness rating of "limited."

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. These estimates of permanent and temporary impacts on natural communities and habitats of concern are presented in Table 2.1.

Permanent impacts would result predominately from the installation of rock slope protection and new headwalls at relevant locations. Temporary impacts would occur from grading construction access areas and excavations for cut and cover. Sources of impacts would likely include but would not be limited to

trucks, cranes, bulldozers, backhoes, forklifts, compactors, clamshells, excavators, hoe rams, jackhammers, compressors, scrapers, paver grinders, pavers, and worker foot traffic. Equipment would be temporarily staged in existing roadside turnouts, the edges of State Route 1, or in other already disturbed areas.

[The following paragraph has been added since the draft environmental document was circulated. During this project's public review period, the California Department of Fish and Wildlife requested that the Seaside Woolly Herbaceous Alliance be identified as a sensitive natural community.]

Seaside Woolly Herbaceous Alliance: The Seaside Woolly Herbaceous Alliance is the lone natural community in the Biological Study Area that is considered sensitive by the California Department of Fish and Wildlife. This natural community has a state rank of "S-3" and is therefore considered rare/vulnerable by the California Department of Fish and Wildlife. This sensitive natural community is present at Location 4 (post mile 30.86). The project has been designed to reduce impacts on this natural community to the extent feasible. As such, there will be no permanent impacts. There will be an estimated 0.062 acre of temporary impacts on this natural community; however, it is likely that these impacts may be further reduced as the project design is refined. Temporary impacts to this natural community will be restored using an erosion control seed mix containing seaside woolly flowers and other native species within this community type. Additionally, the avoidance and minimization measures outlined for Wetlands, Other Waters, and Riparian Areas will also protect this natural community. The project's Restoration and Monitoring Report will also address the restoration of the seaside woolly flower herbaceous alliance.

Wetlands, Other Waters, and Riparian Areas

[The following section has changed since the draft environmental document was circulated. Permanent impacts are no longer anticipated in California Coastal Commission jurisdictional areas. Temporary impacts on the jurisdictional areas described below have been revised to reflect the removal of three locations.]

Estimates of permanent and temporary impacts on potential jurisdictional wetlands, other waters, riparian habitats, and other upland habitats are presented in Table 2.1. These impacts were determined by overlaying the project's Biological Study Area with the jurisdictional determination mapping prepared by Caltrans for the Jurisdictional Waters Assessment.

The total estimated temporary impacts to the U.S. Army Corps of Engineers' jurisdictional other waters are 187 square feet (0.004 acre). The total estimated temporary impacts on the U.S. Army Corps of Engineers' jurisdictional wetlands are 305 square feet (0.007 acre). The total estimated temporary impacts on Regional Water Quality Control Board jurisdictional

areas are 653 square feet (0.015 acre). The total estimated temporary impacts on California Department of Fish and Wildlife jurisdictional areas are 653 square feet (0.015 acre). The total estimated temporary impacts to California Coastal Commission coastal zone wetlands and environmentally sensitive habitat areas are 653 square feet (0.015 acre).

Temporary impacts to jurisdictional areas would occur as the result of vegetation trimming, excavation, equipment access, and foot traffic.

[The following table has changed since the draft environmental document was circulated. The square feet/acreage of impacts have been revised to reflect the removal of three locations from the project. The following natural communities or habitats have been removed since impacts on them are no longer anticipated: Sticky Snakeroot Herbaceous Seminatural Alliance, Arroyo Willow Shrubland Alliance, Smooth Horsetail Herbaceous Alliance, and California red-legged frog critical habitat.]

Table 2.1 Summary of Potential Impacts to Jurisdictional Riparian Areas and Natural Communities and Habitats of Concern

Natural Community/Habitat	Permanent Impacts (Square Feet/Acres)	Temporary Impacts (Square Feet/Acres)
Ruderal/Disturbed Areas	None	10,149 square feet/0.233 acre
Non-Native Annual Grassland Areas	None	784 square feet/0.018 acre
Disturbed Hillside	174 square feet/0.004 acre	16,945 square feet/0.389 acre
Central Lucian Coastal Scrub	87 square feet/0.002 acre	8,364 square feet/0.192 acre
Kikuyu Grass Herbaceous Seminatural Alliance	None	2,091 square feet/0.048 acre
Seaside Woolly Herbaceous Alliance	None	2,701 square feet/0.062 acre
Eucalyptus Woodland Natural Alliance	None	6,186 square feet/0.142 acre
Blueblossom Chapparal Shrubland Alliance	None	5,401 square feet/0.124 acre
Cape Ivy Mats	None	4,094 square feet/0.094 acre
U.S. Army Corps of Engineers Jurisdictional Other Waters	None	187 square feet/0.004 acre
U.S. Army Corps of Engineers Jurisdictional Wetlands	None	305 square feet/0.007 acre
Regional Water Quality Control Board Jurisdictional Areas	None	653 square feet/0.015 acre
California Department of Fish and Wildlife Jurisdictional Areas	None	653 square feet/0.015 acre
California Coastal Commission Jurisdictional Areas	None	653 square feet/0.015 acre

Special-Status Plant and Animal Species

Because of a lack of suitable habitat and/or no observations during appropriately timed floristic surveys, the Federally Endangered Section 7 effects determination is that the project would not affect any special-status plant species.

[The following paragraph has been changed since the draft environmental document was circulated. Caltrans has changed its determination on impacts on the California red-legged frog. With the removal of Locations 2, 5, and 7, California red-legged frog critical habitat no longer exists within the Biological Study Area. Therefore, the discussion of their critical habitat has been removed.]

California red-legged frog: Marginal upland dispersal habitat exists at Location 3 (post mile 30.10) based on vegetation cover and soil moisture. These areas will be temporarily affected by project activities. It is extremely unlikely that a California red-legged frog will be present due to a lack of suitable breeding habitat adjacent to these project locations and its distance from critical habitat. Though impacts on California red-legged frogs are considered discountable, no complete barrier exists between the aquatic habitat at Rat Creek and this project location. Avoidance and minimization measures are proposed to ensure there is no take of the California red-legged frog.

The Federal Endangered Species Act Section 7 effects determination is that the project may affect, but is not likely to adversely affect, the California red-legged frog. The basis for this determination is that the California red-legged frog is unlikely to occur in the project, but marginal upland habitat will be temporarily impacted by project activities.

[The following paragraph has been changed since the draft environmental document was circulated. Caltrans has changed its determination on impacts on the Smith's blue butterfly, and discussion of their critical habitat has been removed.]

Smith's Blue Butterfly: It is anticipated that due to the steep hillsides that host plants are present on, no impacts will occur to seacliff buckwheat. Individual plants will be flagged for avoidance, and construction crews will be made aware of their presence and avoidance needs.

No seacliff buckwheat will be affected. Additional buckwheat surveys will be conducted prior to construction. If additional seacliff buckwheat are identified during future project surveys, they will be avoided, or Caltrans will coordinate with the U.S. Fish and Wildlife Service to determine appropriate steps and approvals. The Federal Endangered Species Act Section 7 determination is that the project will have no effect on Smith's blue butterfly.

[The following paragraphs have been added since the draft environmental document was circulated. Monarch butterflies, Crotch's bumblebees, and migratory nesting birds were not previously discussed.]

Monarch Butterfly Overwintering Population: Marginal overwintering habitat was determined to be present. Approximately three non-native eucalyptus

trees may be removed at Location 4 for construction activities. A roosting monarch survey will be conducted at this location and any other suitable roosting sites prior to tree removal and construction. Work within 500 feet of a confirmed overwintering site during the overwintering period (September 15 to March 15) will be avoided as feasible. If work cannot be avoided, a biological monitor will be present during all work within the 500-foot buffer to survey for any signs of disturbance to roosting monarchs. Work will be stopped if roosts show signs of disturbance.

Crotch's bumblebee: Focused surveys for Crotch's bumblebees will be conducted approximately one year prior to construction to allow for potential permit acquisition. If surveys identify areas of marginal to high habitat suitability, then additional surveys in the spring/summer prior to construction will be conducted. There is no protocol survey for Crotch's bumblebees; therefore, habitat assessments and surveys will be conducted using the appropriate methodology. Preconstruction surveys will also be conducted within 48 hours prior to initial ground disturbance and vegetation removal. If a Crotch's bumblebee is identified in the project vicinity during any survey, no work will occur at that location until Caltrans has coordinated with the California Department of Fish and Wildlife. If take cannot be avoided, Caltrans will acquire an Incidental Take Permit prior to initiating work.

Migratory Nesting Birds: Estimates of impacts on potential nesting habitat for migratory nesting birds throughout the Biological Study Area are represented as impacts on the natural communities listed above. Temporary impacts on potential nesting habitats will occur primarily due to temporary construction access. The removal of vegetation could directly impact active bird nests and any eggs or young residing in nests, but only if vegetation is removed during the nesting bird season (February 1–September 30). Indirect impacts could also result from noise and dust associated with construction. Noise created by large construction equipment could alter perching, foraging, and/or nesting behaviors. Dust could disturb air quality, reduce sight visibility, and hide insects available for foraging passerines. Several non-riparian non-native trees are anticipated to be removed, which could affect perching, foraging, and/or nesting habitat. The understory vegetation surrounding these trees will also be removed, which could disturb prey such as insects and small mammals or reptiles.

Invasive Species

Ground disturbance and other activities related to construction could potentially spread or introduce invasive species within the Biological Study Area. The distribution of the most invasive plant species is mostly sparsely scattered throughout the Biological Study Area and most common in the ruderal and disturbed areas along the edges of State Route 1.

The spread of invasive species would be managed with the implementation of the avoidance and minimization measures listed below.

Avoidance, Minimization, and/or Mitigation Measures

[The following section has been changed since the draft environmental document was circulated. The order in which the measures are listed was revised to better match the previous sections.]

The measures listed below would reduce potential impacts on biological resources. Mitigation measures are labeled as such, and the remaining measures are avoidance or minimization measures.

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: Environmentally Sensitive Area fencing will be installed along the maximum disturbance limits to minimize disturbance to habitats/vegetation. Caltrans Standard Special Provisions for Installing Environmentally Sensitive Area Fencing will be included in the construction contract and will be identified in the project plans. Before the start of construction activities, Environmentally Sensitive Areas will be delineated in the field and approved by the Caltrans environmental division.

BIO-2: Areas of temporary disturbance to natural habitats will be stabilized and replanted; these include areas supporting central (Lucian) coastal scrub, willow woodland, seaside woolly sunflower patches, horsetail meadow, and blue blossom chaparral.

Wetlands, Other Waters, and Riparian Areas

A variety of avoidance and minimization measures will be implemented for potential impacts on jurisdictional areas resulting from the project:

BIO-3: Before construction, Caltrans shall obtain a Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife, and a Coastal Development Permit (or waiver) from the California Coastal Commission.

BIO-4: Before construction, Caltrans shall prepare a Mitigation and Monitoring Plan to mitigate impacts on vegetation and natural habitats. The Mitigation Monitoring Plan shall be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions as required. Caltrans shall implement the Mitigation Monitoring

Plan as necessary during construction and immediately following project completion.

BIO-5: Before the start of any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around jurisdictional waters, coastal zone Environmentally Sensitive Habitat Areas, and the dripline of trees to be protected within project limits. Caltrans-defined Environmentally Sensitive Areas shall be noted on design plans and delineated in the field before the start of construction activities.

BIO-6: 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-7: 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, wetlands, and riparian habitats. At a minimum, erosion controls shall be maintained by the contractor daily throughout the construction period.

BIO-8: During construction, the cleaning and refueling of equipment and vehicles shall occur only within a designated staging area. This area shall either be a minimum of 100 feet from aquatic areas or, if the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers (for example, fiber rolls or equivalent). 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 daily to ensure proper operation and avoid potential leaks or spills.

[The following mitigation measure has been changed since the draft environmental document was circulated. Permanent impacts to wetlands, other waters, and riparian areas are no longer anticipated with the removal of Locations 2, 5, and 7.]

Mitigation Measure BIO-9: The goal of compensatory mitigation is to prevent a net loss of wetlands or another aquatic resource acreage, function, and value. Several types of compensatory mitigation are available to offset impacts on the waters of the U.S., including the restoration, establishment, enhancement, and preservation of either on-site or off-site wetlands and/or other waters.

On-site restoration and reestablishment are proposed at a 1-to-1 ratio (acreage) for temporary impacts.

Revegetation efforts will be detailed in Caltrans' Landscape Architecture Plans and/or Erosion Control Plans and the final Restoration Monitoring Plan

for the anticipated temporary impacts. The Mitigation Monitoring Plan will be developed in coordination with a Caltrans District 5 biologist and will include specifications to ensure the reestablishment of natural habitats impacted. The final Mitigation Monitoring Plan will detail mitigation commitments and be consistent with standards and mitigation requirements from the applicable regulatory agencies. The Mitigation Monitoring Plan will be prepared when full construction plans are prepared and will be finalized through the permit review process with regulatory agencies. It is expected that restoration efforts will be on-site and in kind and consist of the same native species impacted and other associated native species known to occur within the project limits. Table 2.2 summarizes the expected types of mitigation at each project location.

[The following table has changed since the draft environmental document was circulated. Locations 2, 5, and 7 have been dropped from the project.]

Table 2.2 Summary of Mitigation

Project Location	Mitigation Anticipated
Location 1 at Post Mile 27.76	No jurisdictional waters are present, and no compensatory mitigation is proposed. Upland habitats impacted to accommodate temporary access will be restored with relevant vegetation and will not require wetland plant species to be restored.
Location 3 at Post Mile 30.10	Contains a three-parameter wetland (and coastal environmentally sensitive habitat area) in a coastal seep that will be subject to temporary impacts. Regeneration, restoration, and reestablishment of wetland species will occur in kind.
Location 4 at Post Mile 30.86	Contains a channel that has an ordinary high-water mark and a narrow strip of nearby riparian vegetation. Temporary impacts will occur in the channel up and downstream of the culvert. Temporary impacts to the channel and riparian zone will be replaced in kind.
Location 6 at Post Mile 33.87	No jurisdictional waters are present, and no compensatory mitigation is proposed. Upland habitats impacted to accommodate temporary access will be restored with relevant vegetation and will not require wetland plant species to be restored.
Location 8 at Post Mile 70.87	Contains jurisdictional other waters as well as a three-parameter wetland. All impacts will be temporary and replaced in kind.

California Red-Legged Frog

[The following section has been changed since the draft environmental document was circulated. With the removal of all locations containing California red-legged frog critical habitat, mitigation related to the California red-legged frog is no longer anticipated to be required.]

Along with the measures below, it should also be noted that Mitigation Measure BIO-9, discussed earlier under Wetlands, Other Waters, and Riparian Areas, would also help to reduce any potential impacts on California red-legged frogs.

BIO-10: Applicable measures from the Programmatic Letter of Concurrence between Caltrans and the U.S. Fish and Wildlife Service for California red-legged frogs shall be implemented. The Programmatic Letter of Concurrence 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. If any life stage of the California red-legged frog is detected, the U.S. Fish and Wildlife Service will be notified prior to the start of construction.

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

- A biological monitor shall be on-site until all disturbances to the habitat area are completed.

- Minimize the project footprint and locate access routes outside of potential habitat areas.

- Follow appropriate Caltrans Standard Specifications and Best Management Practices relevant to working near waterways, refueling, and trash storage.

- Work activities will take place during the dry season, between April 1 and November 1, when water levels are typically at their lowest and California red-legged frogs are likely to be more detectable. Unless approved by the U.S. Fish and Wildlife Service, water shall not be impounded in a manner that may attract California red-legged frogs.

- 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.

- Restore the site to natural contours and revegetate it with native plants suitable for the habitats within the project area.

Smith's Blue Butterfly

[The following section has changed since the draft environmental document was circulated. Caltrans has changed its determination on Smith's blue butterfly and no longer anticipates requiring a Programmatic Biological Opinion for Smith's blue butterfly.]

The project will have no effect on Smith's blue butterfly or its host plant; therefore, no avoidance and minimization measures are proposed.

[The following measures have been added since the draft environmental document was circulated. Measures for the Monarch Butterfly Overwintering Population were not previously included in the project.]

Monarch Butterfly Overwintering Population

The following avoidance and minimization measures will be implemented for overwintering monarch butterflies:

BIO-11: A roosting monarch survey will be conducted, and due to the dynamic nature of roosting sites, surveys will be done after the completion of the final environmental document and prior to construction.

BIO-12: Work within 500 feet of a confirmed overwintering site during the overwintering period (September 15–March 15) will be avoided as much as feasible. If work cannot be avoided, a biological monitor will be present during all work within the 500-foot buffer to survey for any signs of disturbance to roosting monarchs. Work will be stopped if roosts show signs of disturbance.

[The following measures have been added since the draft environmental document was circulated. Measures for the Crotch's bumblebee were not previously included in the project.]

Crotch's bumblebee

The following avoidance and minimization measures for Crotch's bumblebees will be implemented:

BIO-13: Focused surveys for Crotch's bumblebees will be conducted approximately one year prior to construction to allow for potential permit acquisition. If surveys identify areas of marginal to high habitat suitability, then additional surveys in the spring/summer prior to construction will be conducted.

BIO-14: If Crotch's bumblebees are detected, no work will occur at that culvert location until Caltrans has coordinated with the California Department of Fish and Wildlife to determine appropriate avoidance and minimization measures and obtain necessary approvals.

BIO-15: Preconstruction surveys will also be conducted within 48 hours prior to initial ground disturbance and vegetation removal.

[The following measures have been added since the draft environmental document was circulated. Measures for Migratory Nesting Birds were not previously included in the project.]

Migratory Nesting Birds

The following avoidance and minimization measures will apply to all birds protected by the Migratory Bird Treaty Act and California Fish and Game Code Section 3503:

BIO-16: If feasible, vegetation removal and tree trimming shall be scheduled to occur between October 1 and January 31, outside of the typical nesting bird season, which is February 1 to September 30. If vegetation removal or other construction activities are proposed to occur during the nesting season (February 1 to September 30), a nesting bird survey will be conducted by a Caltrans biologist no more than seven days prior to construction.

BIO-17: If an active nest is found, a qualified biologist shall determine an appropriate Environmentally Sensitive Area buffer or monitoring strategy based on the habits and needs of the species. The buffer area shall be avoided, or a monitoring strategy shall be implemented until a qualified biologist has determined that juveniles have fledged and are no longer reliant on the nest.

BIO-18: Trees to be removed will be noted on design plans.

BIO-19: No rodent control pesticides shall be used, including anticoagulant rodenticides such as brodifacoum, bromadiolone, difethialone, and difenacoum. This is a necessary precaution to avoid secondary poisoning to raptors that hunt and feed on rodents and other small animals.

Invasive Species

BIO-20: Only clean fill shall be imported. When practicable, invasive exotic plants on the project site shall be removed and properly disposed of. All 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.

BIO-21: Invasive species listed in the California Invasive Plant Council's Invasive Plant Inventory shall not be included in the Caltrans erosion control seed mix, erosion control plans, or planting plans.

BIO-22: The contract specifications for permanent erosion control will require using regionally appropriate California native forb and grass species that occur in the same general geographic area as the project site.

BIO-23: Mulches used on the project will be from source materials that will not introduce exotic species.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report, Historic Resource Evaluation Report, Archaeological Survey Report, and Finding of No Adverse Effect (all dated January 2022), 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?	**Less Than Significant Impact**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**No Impact**
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	**No Impact**

Affected Environment

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

In January 2021, Caltrans sent letters to the Native American Heritage Commission, requesting a search of the Sacred Lands Files and a list of interested Native Americans. In February 2021, the Native American Heritage Commission responded with the negative results of the Sacred Lands Files, along with providing a list of Native Americans who have requested consultation for projects in the 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 21080.3.1). In February 2021, 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 described the project and asked if there were any specific concerns about the project area from the Native American community. Caltrans provided additional information to tribes that requested it. No specific concerns were expressed by any of the tribal groups. Consultation is ongoing and will continue through the duration of the project and as requested by any tribal member.

In December 2021, Caltrans sent letters to the Monterey County Historical Society and the Big Sur Historical Society to notify them of the project and inquire whether either society had any special interest in or knowledge of the property. Later that same month, the Big Sur Historical Society responded to

Caltrans and had no comments at the time while also requesting to stay on the list for future updates to the project. No responses have been received to date from the Monterey County Historical Society.

Architectural History

The Area of Potential Effect was established as the entire area where project-related activities may cause direct or indirect effects on historic properties. The Carmel-San Simeon Highway Historic District is the only historic property in the project area of potential effect. Because the project occurs within the 75-mile-long Carmel-San Simeon Highway Historic District, the Architectural Area of Potential Effect is made up of the entire historic district.

The Carmel-San Simeon Highway Historic District includes 241 contributing resources, including 234 rustic-style rubble masonry features (158 culvert headwalls, 61 parapet walls, 10 retaining walls, and five fountains), as well as seven concrete arch bridges. The Carmel-San Simeon Highway Historic District was previously determined eligible for the National Register of Historic Places in 1996 (updated in 2006). The Historic Resource Evaluation Report prepared by Caltrans confirmed these previous determinations and that none of the headwalls are individually eligible for listing in the National Register of Historic Places or the California Register of Historical Resources; however, some of the culvert headwalls are contributing resources to the Carmel-San Simeon Highway Historic District.

Based on the previous determinations and the evaluations conducted for the current project, the project includes two contributing resources in the Carmel-San Simeon Highway Historic District, which are two historic headwalls proposed for replacement under this project.

Archaeology

Because the project work would occur only at five separate locations along State Route 1, the Area of Direct Impact (Archaeological Area of Potential Effect) for each culvert location includes the entire area where the project work, including all ground disturbances, will occur. Thus, the project's Area of Direct Impact includes five separate areas of impact for each of the culverts.

A records search was conducted in the Caltrans District 5 Cultural Resources Files and the Caltrans Cultural Resources Database. The searches were conducted within a 0.25-mile radius of the entire project limits, as opposed to just each project location. The records searches and literature reviews identified 12 previously conducted studies within this search radius and confirmed that the entire Area of Direct Impact has been previously studied. No archaeological resources were identified within the Area of Direct Impact from these record searches.

The results of Native American Consultation did not reveal any new or previously recorded cultural or tribal cultural resources in the archaeological

Area of Direct Impact. A Caltrans District 5 archaeologist surveyed the archaeological Area of Direct Impact, i.e., each culvert project location, in July 2021. No archaeological resources were identified in the Area of Direct Impact during archaeological surveys. The project is located in the steep and eroded gullies of the Big Sur Coast. There are no archaeological or tribal cultural resources within the Area of Direct Impact.

Environmental Consequences

Architectural History

A Finding of No Adverse Effect without Standard Conditions was completed for this project. Caltrans has determined that the undertaking will not constitute an adverse effect on the Carmel-San Simeon Highway Historic District pursuant to Section 106 Programmatic Agreement Stipulation X.B.2. Of the five types of contributing resources included in the Carmel-San Simeon Highway Historic District (concrete arch bridges, masonry fountains, masonry retaining walls, masonry parapet walls, and masonry culvert headwalls), masonry culvert headwalls are the most common and numerous, the smallest in size, the least visible from the highway, and the least aesthetically unique or structurally complex. The headwalls were constructed according to the Division of Highways Standard Specifications, using standard construction practices and materials. Removing two contributing headwalls out of more than 150 contributing headwalls would not diminish the integrity of the Carmel-San Simeon Highway Historic District in a manner or to an extent that would impair the district's ability to convey its historical significance. The Finding of No Adverse Effect prepared by Caltrans includes a discussion of the application of the Criteria of Adverse Effect and concludes that the project does not constitute an adverse effect on historic properties.

Archaeology

Since there are no archaeological or tribal cultural resources within the project's Area of Direct Impact, this project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. Further, it is not expected that this project would disturb any human remains, including those interred outside of dedicated cemeteries.

State Historic Preservation Officer Consultation

Upon completing cultural resources studies, Caltrans' Cultural Studies Office forwarded all documents to the State Historic Preservation Officer for review in February 2022. The State Historic Preservation Officer issued a concurrence letter to Caltrans on May 4, 2022. The State Historic Preservation Officer concurred with Caltrans' determinations of eligibility and stated that they have no objections to the finding that the project will have no adverse effect on historic properties.

Avoidance, Minimization, and/or Mitigation Measures

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

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 culverts 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 May 2022, along with the Paleontology Review Memorandum dated February 2021, 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**

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
iii) Seismic-related ground failure, including liquefaction?	**No Impact**
iv) Landslides?	**Less Than Significant 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 on-site or off-site 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**
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 entire project limits rest within the middle of the Sur Region of the San Gregorio Fault System, 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 United States. California Geological Survey records indicate all faults within the project limits 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. The U.S. Geological Survey's online Interactive Fault Map also shows the entire project limits lie within the Sur Region of the San Gregorio Fault System. The map categorizes the onshore faults as "Late Quaternary" (less than 130,000 years) or "undifferentiated Quaternary" (less than 1.6 million years). Therefore, the structures are not considered susceptible to surface fault rupture hazards per Caltrans standards.

Upon review of geologic maps available on the California Geological Survey's database, all drainage systems in the project limits are situated on colluvium Quaternary landslide deposits overlaying the Franciscan Complex (metagraywacke, shale, and/or mélange of low-grade metamorphic rocks),

Cretaceous marine sandstone, and granitic rocks of the Salinian Complex. The overall Franciscan Complex unit is relatively unstable due to a mixture of stronger rocks surrounded or embedded within a weak, finer-grained matrix.

Previous Caltrans preliminary reports for Caltrans projects within the project limits referenced soil boring records, which provided information to suggest that there is no potential for liquefication and lateral spreading in the area where all of the drainage systems are located. The U.S. Department of Agriculture's Web Soil Survey data also show the grounds within the project limits to be well-draining and, therefore, there is no risk of liquefaction where all the drainage systems are located.

The project limits on State Route 1 are predominantly supported by artificial fill per Caltrans' Standard Specifications or bearings made of hardened rock. Unified Soil Classification data from the U.S. Department of Agriculture's soil survey database also show the project limits on soils with relatively low expansive clay content. The U.S. Department of Agriculture's Web Soil Survey data also indicate that all drainage systems are on soil that is rated moderate to severe for erosion hazards. Monterey County's online Geologic Hazards Map also rated the entire area along State Route 1 and the project limits as a high risk for erosion.

All the drainage systems along State Route 1 within the project limits are in landslide-prone areas and situated on Quaternary landslide deposits (colluvium), according to the geologic maps in the California Geological Survey's database. The Geologic Hazards Map application from Monterey County's Geographic Information Systems Department webpage also identifies the areas within the project limits that are at risk for landslides. Both seismic and/or heavy rainfall events will also contribute to landslide hazards.

Environmental Consequences

While the project is in an area that is prone to landslides and rated as having a high risk for erosion, it is not expected to further exacerbate these risks. Caltrans Design Engineering and Caltrans Office of Geotechnical Engineering were able to conclude that all five culvert locations set for replacement could be done with "open cut" construction methods (not trenchless), and therefore issues related to geology and soils are not expected to be an issue.

No unique paleontological resource, site, or unique geologic feature would be destroyed during project construction. Project earthwork would be limited to soils along the existing shoulders that have been previously disturbed or to geologic units with no paleontological potential or low paleontological potential that are unlikely to contain fossils.

Avoidance, Minimization, and/or Mitigation Measures

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

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change Technical Report dated October 2022 and the Air Quality, Greenhouse Gas, Noise, and Water Quality Memorandum dated August 2021, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	**Less Than Significant Impact**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	**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 report 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 project location is the Association of Monterey Bay Area Governments. The Association of Monterey Bay Area Governments' Regional 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 expected to achieve a 4 percent per capita reduction by 2020 and a nearly 7 percent per capita reduction by 2035. This project, however, is not included in the Strategy.

The regional transportation planning agency for the project is the Transportation Agency for Monterey County. The Transportation Agency for Monterey County's 2018 Regional Transportation Plan identifies three primary approaches to practicing environmental stewardship:

- Reduce greenhouse gas emissions consistent with the regional targets for greenhouse gas emissions in 2020 and 2035 set by the Association of Monterey Bay Area Governments.

- Avoid or minimize impacts on local, state, and federally defined sensitive areas.

- Conserve farmland resources.

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

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

- 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 not be 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; 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 project is to rehabilitate nine existing drainage systems at five locations in Monterey County that have exceeded their design life and have deteriorated or failed; the project will 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-related 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 about 40 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 10.33 tons of carbon dioxide equivalents during the estimated 40 days of project construction. 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 the site to check on the failed or failing drainage systems. After project construction, there would be longer intervals between maintenance and rehabilitation activities.

While the project will 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, Minimization, and/or Mitigation 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: Limit idling to five minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).

GHG-2: Schedule truck trips outside of peak morning and evening commute hours.

GHG-3: 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 new technologies.

GHG-4: Earthwork balance; reduce the need for transport of earthen materials by balancing cut and fill quantities.

GHG-5: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction.

GHG-6: Recycle existing project features on-site. This may include salvaging rebar from demolished concrete, processing waste to create usable fill, and maximizing the use of recycled materials that meet Caltrans' specifications for incorporation into new work.

2.1.9 Hazards and Hazardous Materials

As outlined in the Hazardous Waste Memorandum dated February 2021, there are no known hazardous waste issues or hazardous materials sites under Government Code Section 65962.5 within the project limits. Aerially deposited leads, naturally occurring asbestos, asbestos-containing materials, lead-containing paints, and yellow traffic stripes will not be issues on this project. Excavation activities would either be well away from the area where aerially deposited leads are typically found or would be covered with a paved surface. Naturally occurring asbestos was not mapped at the culvert locations. The project would not impact structures or facilities to an extent that would warrant a lead compliance plan, require the removal of asbestos-containing materials, or disturb hazardous yellow traffic striping.

Potential issues related to hazardous waste that may be encountered during project construction include treated wood waste; however, it has been determined that through Caltrans' Best Management Practices, along with Standard Specifications Section 14-11.14, treated wood waste would not create a substantial hazard to the public or environment. More detailed hazardous waste investigations would occur in the project's design phase.

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 Carmel Valley Region Evacuation Guide. However, the traffic management plan would account for emergency evacuations, and, therefore, the evacuation plan would not be impaired. This project would not change the fire risk in the area.

Considering this information and the information in the Hazardous Waste Technical Memorandum dated February 2021, 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 project has the potential to directly discharge stormwater within the project limits into the Pacific Ocean. The project will involve minor earthwork related to culvert repair and replacement. However, the project will improve the existing degraded culvert condition and hence provide an added water quality benefit for the receiving water body. By incorporating appropriate engineering design and robust water Best Management Practices during construction, minimal short-term water quality impacts are expected.

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.

The project would not encroach into any 100-year base floodplain. There are no significant risks associated with project implementation. The project does not constitute a significant floodplain encroachment, as defined in the Code of Federal Regulations, Title 23, Section 650.105(q).

Considering the information in the Air Quality, Noise, and Water Quality Technical Assessment Memorandum dated August 2021, along with the Floodplain Evaluation dated March 2022, the following significance determinations have been made:

Question—Would the project:	**CEQA Significance Determinations for Hydrology and Water Quality**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	**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 on-site or off-site;	**No Impact**
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site;	**No Impact**
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	**No Impact**
(iv) impede or redirect flood flows?	**No Impact**

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
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, the Big Sur Land Use Plan, or any other policy or regulation meant to avoid or mitigate an environmental effect. See Appendix C 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 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 an existing facility, 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**

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

2.1.13 Noise

Considering the information in the Air Quality, Greenhouse Gas, Noise, and Water Quality Memorandum dated August 2021, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**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 spans about 46 miles along the State Route 1 corridor in Monterey County. All of the project's spot locations are in rural settings with very few scattered residents in the vicinity, except for the project location at post mile 73.12, which is in an urban setting surrounded by residential units.

Environmental Consequences

This project would be considered a Type Three Project since no capacity would be added to the highway, no significant change in the highway profile is expected, and local noise levels are assumed to be the same after project completion as they were before. Long-term noise abatement measures are not expected with this project.

Local noise levels in the vicinity of any given location will inevitably experience a short-term increase due to construction activities. The amount of construction noise will vary with the particular activities associated with each location and the 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.

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. A notice should be published in local news media of the dates and duration of the proposed construction activity. The District 5 Public Information Office would post a notice of the proposed construction and potential community impacts after receiving information from the resident engineer.

NOISE-2: Shield loud pieces of stationary construction equipment if complaints are received.

NOISE-3: Locate portable generators, air compressors, and other loud equipment away from sensitive noise receptors as feasible.

NOISE-4: Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.

NOISE-5: 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-6: Consult district noise staff if complaints are received during the construction process.

The following Caltrans Standard Specification for noise control will also be implemented:

NOISE-7: To minimize impacts on residents' normal nighttime sleep activities, it is recommended that, whenever possible, construction work be done during the day. If nighttime construction is necessary, the noisiest construction activities will be done as early in the evening as possible. Caltrans Standard Specifications Section 14-8.02 Noise Control will be implemented. This

standard specification requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 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**

Question:	CEQA Significance Determinations for Public Services
Parks?	**No Impact**
Other public facilities?	**No Impact**

2.1.16 Recreation

This project would rehabilitate existing drainage systems in Monterey County that have exceeded their design life and have deteriorated or failed 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**
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 replace or repair drainage systems along State Route 1; 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 vehicles miles traveled. The project, therefore, would not conflict with relevant transportation programs, plans, ordinances, or policies. See Appendix C 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 project spans almost 50 miles along State Route 1 in Monterey County from post miles 27.76 to 70.87. State Route 1, along most of the project length, is a two-lane conventional highway with 12-foot lanes. Shoulder widths vary from zero to 8 feet, with most being 4 feet or less. State Route 1 in the project vicinity generally serves local and interregional traffic, primarily including the usage of local recreational facilities, local commuters, and limited commercial users.

Environmental Consequences

Highway reliability would be improved by rehabilitating degraded drainage elements that, in the long term, increase the susceptibility of the highway. There would be traffic delays during construction due to temporary closures, ramp closures, and/or one-way traffic control. 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 to emergency access.

Avoidance, Minimization, and/or Mitigation 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.

2.1.18 Tribal Cultural Resources

Considering the information in the Archaeological Survey Report and Finding of No Adverse Effect, dated January 2022, the significance determinations summarized below have been made. An archaeological survey and Native American consultation conducted for the project found that there are no archaeological or tribal cultural resources within the project's area of direct impact.

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

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

2.1.19 Utilities and Service Systems

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. 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**
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—a forest fire that spreads from treetop to treetop—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. The project spans almost 50 miles along State Route 1 in Monterey County and is predominately in a "very high" fire hazard severity zone, with several spot locations and stretches of "moderate" and "high" fire hazard severity zones. These risk levels are expected to increase under future climatic conditions.

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 2018 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 expected to exacerbate the impacts of wildfires intensified by climate change or be any more susceptible to wildfire damage than under the current conditions.

Considering this information, along with the information in the Climate Change Technical Report dated June 2022, 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**
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	**Less Than Significant Impact**
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	**Less Than Significant Impact**

Affected Environment

Project work would occur at five locations along State Route 1 in Monterey County. Construction activities would occur mostly within a Caltrans right-of-way, aside from some locations where culvert work would take place on nearby land.

State Route 1 through the project area is a two-lane conventional highway that has been honored as a Designated National Scenic Byway and All-American Road. The alignment of State Route 1 within the project limits winds through open spaces and scattered residential and commercial developments along the steep Big Sur coastline. U.S. Route 101 is the main transportation route to and through the area for both passenger and commercial vehicles.

The project could affect several biological communities, as described in Section 2.1.4, Biological Resources. As explained in Section 2.1.5, Cultural Resources, and Section 2.1.18, Tribal Cultural Resources, project work would

occur outside of culturally significant areas. The project would not impact paleontological resources, as delineated in Section 2.1.7, Geology and Soils.

Environmental Consequences

[The following section has changed since the draft environmental document was circulated. With the removal of Locations 2, 5, and 7, impacts on the following natural communities are no longer anticipated: Sticky Snakeroot Herbaceous Seminatural Alliance, Arroyo Willow Shrubland Alliance, and Smooth Horsetail Herbaceous Alliance. Further, Caltrans has revised its assessment of the impact on Smith's blue butterfly under the Federal Endangered Species Act Section 7, now concluding that the project will have no effect on the species. The discussion of cumulative impacts on these resources has, therefore, been removed.]

The project was evaluated for potential impacts on biological resources, as explained in Section 2.1.4, Biological Resources. The approximately 4-acre Biological Study Area includes several biological communities that could potentially be affected by the project, spread across five distinct locations. These biological communities vary from natural to human-made in character and include the following: Central Lucian Coastal Scrub, Kikuyu Grass Herbaceous Seminatural Alliance, Seaside Woolly Herbaceous Alliance, Blue Blossom Chaparral Shrubland Alliance, Cape Ivy Mats, and Annual Non-Native Grassland. While the project may affect the California red-legged frog, jurisdictional wetlands, other waters, and riparian habitats, the impacts would be considered less than significant with the implementation of the avoidance, minimization, and/or mitigation measures outlined in Section 2.1.4, Biological Resources and Section 2.1.21, Mandatory Findings of Significance. The project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

In addition, the project was evaluated for potential impacts 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. It was determined that the project would have no impact on cultural or paleontological resources and, therefore, would not eliminate important examples of the major periods of California history or prehistory.

In response to item c) above: The project intends to improve existing culverts and drainage 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 to the human environment.

The project includes avoidance and minimization measures to reduce the impact the project may have on the aesthetic environment. The culvert improvements included in the project would permanently add built features that are not unusual to see in the highway corridor. Construction would also disrupt vegetative patterns and cause scarring of the land in some areas. With the implementation of measures listed in Section 2.1.1, Aesthetics, to minimize the noticeability of drainage systems, the project would slightly affect scenic vistas in the area and would be consistent with the aesthetic and visual protection goals for State Route 1. Therefore, these visual changes would cause a minor reduction 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 the project's 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 will 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 due to 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, Minimization, and/or Mitigation Measures

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

Jurisdictional Wetlands, Other Waters, and Riparian Habitats

CUMULATIVE-1: Agencies with regulatory authority in jurisdictional areas include the U.S. Army Corps of Engineers, the Central Coast Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the

California Coastal Commission. To facilitate an improvement in the health of this resource, these agencies should continue to support enhancement, restoration, and mitigation efforts wherever feasible.

California Red-Legged Frog

CUMULATIVE-2: 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. These agencies should continue to make efforts to support projects that improve habitat acreage and function for the California red-legged frog through enhancement and creation. Providing suitable contiguous habitats would make both of these species more resilient and resistant to decline.

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

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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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 projection, 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.

[The following section has been changed since the draft environmental document was circulated. Caltrans will request one consolidated Coastal Development Permit from the Coastal Commission and submit the request to Monterey County. Therefore, any mention of a Federal Consistency Certification has been removed.] 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. 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.

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 Big Sur Coast 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 Big Sur Coast 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

Big Sur Land Use Plan:

- 4.1.2-1—Highway 1 and County Roads
- 4.1.2-2—Highway 1 and County Roads
- 6.1.4-1—Public Access; General Policies

Consistency Analysis

Traffic delays on State Route 1 may occur during project construction due to temporary closures on either side of the highway. The transportation management plan proposed for the construction period would ensure that coastal access via State Route 1 would be maintained at all times. Ultimately, by repairing or replacing the proposed culverts, 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

Big Sur Land Use Plan:

- 3.2.3-A.4—Critical Viewshed
- 3.2.3-A.7—Critical Viewshed
- 3.2.4-A.1—Land Not in Critical Viewshed
- 3.2.4-A.3—Land Not in Critical Viewshed
- 3.2.5-C.1—Public Highway Facilities

- 3.2.5-C.1—Utilities

Consistency Analysis

As described in more detail in the aesthetics section (Section 2.1.1), there is a potential for substantial visual impacts to occur as a result of the project due to the expected visibility and visual contrast of many of the project components, the number of work locations, and the high degree of viewer sensitivity along the scenic highway.

Roadside elements with a high degree of noticeability tend to contrast with the setting and have a greater probability of distracting from the scenic surroundings. Many of the individual elements included as part of this culvert project have the potential to be highly visible and distracting in the scenic viewshed. The extent of visibility depends largely on the context, including topography, roadway alignment, viewing distance, and the amount of existing nearby vegetation and development. In all instances, the noticeability of change would be increased by the visual contrast between the color and reflectivity of the new project elements and actions and the nearby setting. However, it has been determined that with the implementation of the avoidance and minimization measures listed in Section 2.1.1, the potential visual impacts of this project can be reduced and would not result in substantial adverse impacts on the existing visual environment. 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

Big Sur Land Use Plan:

- 3.11.1—Archaeological Resources
- 3.11.2-1—Archaeological Resources
- 3.11.2-2—Archaeological and Paleontological Resources

Consistency Analysis

There are no known archaeological resources within or next to the project area, and the area has a low potential for the presence of paleontological resources.

While archaeological and paleontological resources are not expected to be encountered, standard specifications that cover the appropriate handling of these resources if they were to be inadvertently discovered have been included in the project. Therefore, the project would be consistent with coastal policies related to archaeological and paleontological resources.

Historical Resources
Relevant Policies

Big Sur Land Use Plan

- 3.10.2-1—Historical Resources
- 3.10.2-4—Historical Resources

Consistency Analysis

As described in more detail in the cultural resources section (Section 2.1.5), there is one historic property in the project's Area of Potential Effect—the Carmel-San Simeon Highway Historic District. Caltrans has determined that the proposed replacement of two contributing headwalls out of more than 150 headwalls would constitute a minor impact on the integrity of the historic district as a whole and would not diminish the integrity of the Carmel-San Simeon Highway Historic District in a manner that would impair the district's ability to convey its historical significance. Therefore, the project would be consistent with coastal policies related to historic resources.

Hazards and Hazardous Waste
Relevant Policies

California Coastal Act, Chapter 3:

- Section 30232—Oil and Hazardous Substance Spills

Big Sur Land Use Plan:

- 3.7.2-3—Hazardous Areas
- 3.7.3-2—Hazardous Areas
- 3.7.3-A.1—Geologic Hazards
- 3.7.3-A.4—Geologic Hazards
- 3.7.3-A.7—Geologic Hazards
- 3.7.3-A.8—Geologic Hazards
- 3.7.3-A.9—Geologic Hazards
- 3.7.3-A.11—Geologic Hazards

- 3.7.3-B.2—Flood Hazards

Consistency Analysis

There are no hazardous waste sites or businesses commonly associated with hazardous waste generation near the project. Implementation of Caltrans' Best Management Practices, Standard Specifications, and the measure 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. State Route 1 is listed as a primary evacuation route in the Carmel Valley Region Evacuation Guide. However, the traffic management plan would account for emergency evacuations, and, therefore, the evacuation plan would not be impaired. This project would not change the fire risk in the area.

While the project is in an area that is prone to landslides and rated as having a high risk for erosion, it is not expected to further exacerbate these risks. Caltrans Design Engineering and Caltrans Office of Geotechnical Engineering were able to conclude that all five culvert locations set for replacement could be done with "open cut" construction methods (not trenchless); therefore, issues related to geology and soils are not expected to be an issue. For more information regarding geologic hazards, please see Section 2.1.7, Geology and Soils, of the environmental document.

Air Quality and Greenhouse Gas

Relevant Policies

California Coastal Act

- Section 30253 c, d—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:

- 30231—Biological Productivity; Water Quality

Big Sur Land Use Plan

- 3.4.3-B.1—Rivers and Streams
- 3.4.3-B.3—Rivers and Streams
- 3.4.3-C.1—Water Resource Study Area

Consistency Analysis

As described in more detail in the hydrology and water quality section (Section 2.1.10), the project has the potential to directly discharge stormwater within the project limits into the Pacific Ocean. The project will involve minor earthwork related to culvert repair/replacement. The project will improve the existing degraded culvert condition and, hence, provide an added water quality benefit for the receiving water body. By incorporating the appropriate engineering design and robust stormwater Best Management Practices during construction, minimal, short-term water quality impacts are expected. 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

Big Sur Land Use Plan

- 3.3.2-1—Environmentally Sensitive Habitats
- 3.3.2-2—Environmentally Sensitive Habitats
- 3.3.2-4—Environmentally Sensitive Habitats
- 3.3.2-9—Environmentally Sensitive Habitats

- 3.3.3-A.3—Terrestrial Plant, Riparian, and Wildlife Habitats
- 3.3.3-A.7—Terrestrial Plant, Riparian, and Wildlife Habitats
- 3.3.3-A.10—Terrestrial Plant, Riparian, and Wildlife Habitats
- 3.3.3-B.1—Marine Habitats
- 3.3.3-B.2—Marine Habitats
- 3.9.1-3—Wetlands; Dredging, Filling, and Shoreline Structures
- 3.9.1-4—Wetlands; Dredging, Filling, and Shoreline Structures

Consistency Analysis

[The following paragraph has been changed since the draft environmental document was circulated. Caltrans has changed its determination on impacts on the California red-legged frog. With the removal of Locations 2, 5, and 7, California red-legged frog critical habitat no longer exists within the Biological Study Area. Therefore, the discussion of their critical habitat has been removed.]

Because of a lack of suitable habitat and/or no observations during appropriately timed floristic surveys, the Federally Endangered Section 7 effects determination is that the project will not affect special-status plant species.

The Federal Endangered Species Act Section 7 effects determination is that the project may affect and is not likely to adversely affect the California red-legged frog. The basis for this determination is that the California red-legged frog is unlikely to occur in the project, but marginal upland habitat will be temporarily impacted by project activities. Currently, it is assumed that this project would qualify for the Programmatic Biological Opinion for the California red-legged frog between Caltrans and the U.S. Fish and Wildlife Service.

[The following paragraph has been changed since the draft environmental document was circulated. Caltrans has changed its determination on impacts on the Smith’s blue butterfly, and the discussion of the species’ critical habitat has been removed. Further, Caltrans no longer anticipates requiring a Programmatic Biological Opinion for the Smith’s Blue Butterfly.]

The Federal Endangered Species Act Section 7 determination is that the project will have no effect on Smith’s blue butterfly. The basis for this determination is that, due to the steep hillsides host plants are present on, no impacts will occur to seacliff buckwheat. Individual plants will be flagged for

avoidance, and construction crews will be made aware of their presence and avoidance needs.

[The following paragraphs have been added since the draft environmental document was circulated. Monarch butterflies, Crotch's bumblebees, and migratory nesting birds were not previously discussed.]

Marginal habitat for the Monarch Butterfly Overwintering Population was determined to be present at Location 4 (post mile 30.86), where approximately three non-native eucalyptus trees may be removed for construction activities. A roosting monarch survey will be conducted at this location and any other suitable roosting sites prior to tree removal and construction. If work is to occur within 500 feet of a confirmed overwintering site during the overwintering period (September 15 to March 15), Caltrans will coordinate with the California Department of Fish and Wildlife to establish appropriate construction buffers to avoid impacts; therefore, there will be no impacts on monarch butterflies.

Focused surveys for the Crotch's bumblebee will be conducted approximately one year prior to construction to allow for potential permit acquisition. If surveys identify areas of marginal to high habitat suitability, then additional surveys in the spring/summer prior to construction will be conducted. There is no protocol survey for Crotch's bumblebees; therefore, habitat assessments and surveys will be conducted using appropriate methodology. Preconstruction surveys will also be conducted within 48 hours prior to initial ground disturbance and vegetation removal. If a Crotch's bumblebee is identified in the project vicinity during any survey, no work will occur at that location until Caltrans has coordinated with the California Department of Fish and Wildlife. If take cannot be avoided, Caltrans will acquire an Incidental Take Permit prior to starting work.

Temporary impacts on migratory nesting birds and their potential nesting habitat will occur primarily due to temporary construction access. The removal of vegetation and non-native trees could directly impact active bird nests and any eggs or young residing in nests, but only if vegetation is removed during the nesting bird season. Indirect impacts could also result from the noise and dust associated with construction. When feasible, vegetation removal and tree trimming shall be scheduled to occur between October 1 and January 31, outside of the typical nesting bird season, which is February 1 to September 30. If vegetation removal or other construction activities are proposed to occur during the nesting bird season (February 1 to September 30), a Caltrans biologist will conduct a nesting bird survey no more than seven days before construction.

With the implementation of the avoidance and minimization measures outlined in Section 2.1.4, Biological Resources, impacts on any special-status

species would be reduced to a less than significant level, and the project would be consistent with related coastal policies.

Estimates of permanent and temporary impacts on potential jurisdictional wetlands, other waters, riparian habitats, and other upland habitats are presented in Table 2.1. These impacts were determined by overlaying the project's Biological Study Area with the jurisdictional determination mapping prepared by Caltrans for the Jurisdictional Waters Assessment. Temporary impacts to jurisdictional areas would occur as the result of vegetation trimming, excavation, equipment access, and foot traffic.

[The following paragraph has been changed since the draft environmental document was circulated. Permanent impacts to wetlands, other waters, or riparian areas are no longer anticipated, and therefore, a 3-to-1 restoration and reestablishment on-site are no longer anticipated to be required.]

On-site restoration and reestablishment are proposed at a 1-to-1 ratio (acreage) for temporary impacts. Restoration efforts are expected to be on-site and in kind and consist of the same native species impacted and other associated native species known to occur within the project limits. Table 2.2 summarizes the expected types of mitigation at each project location. With the incorporation of this proposed on-site mitigation, the project is not expected to substantially degrade the ecological function and productivity of the environmentally sensitive habitat areas, and the project would be consistent with coastal policies.

Overall, with the incorporation of avoidance, minimization, and/or mitigation measures, the project would be consistent with coastal policies related to wetlands, coastal environmentally sensitive habitat areas, and biological resources. See Section 2.1.4, Biological Resources, for more information.

Land Use

Relevant Policies

Big Sur Land Use Plan

- 5.4.2-2—Development Policies

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, the Big Sur Land Use 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

The following measures would avoid or minimize impacts to the visual environment.

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

VIS-2: Revegetate all areas disturbed by the project, including but not limited to temporary access roads, staging, and other areas with native plant species appropriate to each specific work location.

VIS-3: Following construction, regrade and recontour any new construction access roads, staging areas, and other temporary uses as necessary to match the surrounding natural topography along State Route 1, avoiding unnatural-appearing remnant landforms.

VIS-4: All metal components related to visible down drains and inlets, including but not limited to corrugated metal pipes, flared end sections, connectors, anchorage systems, and cable barriers, should be darkened or colored to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the specific color.

VIS-5: All concrete components related to headwalls, drain inlet aprons, flared end sections, and other concrete elements should be colored to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the specific color.

VIS-6: The posts and beams of all new or replaced guardrails should be colored and/or darkened to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the color.

VIS-7: All rock slope protection should be placed in natural-appearing shapes rather than geometric patterns to the greatest extent possible to reduce its engineered appearance.

VIS-8: Following the placement of rock slope protection, the rock should be colored to blend with the surroundings and reduce reflectivity. The Caltrans District 5 Landscape Architecture Program shall determine the specific color.

2.1.3 Air Quality

Avoidance, Minimization, and/or Mitigation 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 2018 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). By incorporating appropriate engineering design and stormwater Best Management Practices during construction, minimal, short-term air quality impacts are expected.

2.1.4 Biological Resources

Avoidance, Minimization, and/or Mitigation Measures

[The following section has been changed since the draft environmental document was circulated. The order in which the measures are listed was revised to better match the previous sections.]

The measures listed below would reduce potential impacts on biological resources. Mitigation measures are labeled as such, and the remaining measures are avoidance or minimization measures.

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: Environmentally Sensitive Area fencing will be installed along the maximum disturbance limits to minimize disturbance to habitats/vegetation. Caltrans Standard Special Provisions for installing Environmentally Sensitive Area fencing will be included in the construction contract and will be identified in the project plans. Before the start of construction activities, Environmentally Sensitive Areas will be delineated in the field and will be approved by the Caltrans environmental division.

BIO-2: Areas of temporary disturbance to natural habitats will be stabilized and replanted; these include areas supporting central (Lucian) coastal scrub, willow woodland, seaside woolly sunflower patches, horsetail meadow, and blue blossom chaparral.

Wetlands, Other Waters, and Riparian Areas

A variety of avoidance and minimization measures will be implemented for potential impacts on jurisdictional areas resulting from the project:

BIO-3: Before construction, Caltrans shall obtain a Section 404 Nationwide Permit from the U.S. Army Corps of Engineers, a Section 401 Water Quality Certification from the Regional Water Quality Control Board, a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife, and a Coastal Development Permit (or waiver) from the California Coastal Commission.

BIO-4: Before construction, Caltrans shall prepare a Mitigation and Monitoring Plan to mitigate impacts on vegetation and natural habitats. The Mitigation Monitoring Plan shall be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions as required. Caltrans shall implement the Mitigation Monitoring Plan as necessary during construction and immediately following project completion.

BIO-5: Before the start of any ground-disturbing activities, Environmentally Sensitive Area fencing shall be installed around jurisdictional waters, coastal zone Environmentally Sensitive Habitat Areas, and the dripline of trees to be protected within project limits. Caltrans-defined Environmentally Sensitive Areas shall be noted on design plans and delineated in the field before the start of construction activities.

BIO-6: 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-7: 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, wetlands, and riparian habitats. At a minimum, erosion controls shall be maintained by the contractor daily throughout the construction period.

BIO-8: During construction, the cleaning and refueling of equipment and vehicles shall occur only within a designated staging area. This area shall either be a minimum of 100 feet from aquatic areas or, if the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers (for example, fiber rolls or equivalent). 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 daily to ensure proper operation and avoid potential leaks or spills.

[The following mitigation measure has been changed since the draft environmental document was circulated. Permanent impacts to wetlands, other waters, and riparian areas are no longer anticipated with the removal of Locations 2, 5, and 7.]

Mitigation Measure BIO-9: The goal of compensatory mitigation is to prevent a net loss of wetlands or another aquatic resource acreage, function, and value. Several types of compensatory mitigation are available to offset impacts on the waters of the U.S., including the restoration, establishment, enhancement, and preservation of either on-site or off-site wetlands and/or other waters.

On-site restoration and reestablishment are proposed at a 1-to-1 ratio (acreage) for temporary impacts.

Revegetation efforts will be detailed in Caltrans' Landscape Architecture Plans and/or Erosion Control Plans and the final Restoration Monitoring Plan for the anticipated temporary impacts. The Mitigation Monitoring Plan will be developed in coordination with a Caltrans District 5 biologist and will include specifications to ensure the reestablishment of natural habitats impacted. The final Mitigation Monitoring Plan will detail mitigation commitments and be consistent with standards and mitigation requirements from the applicable regulatory agencies. The Mitigation Monitoring Plan will be prepared when full construction plans are prepared and will be finalized through the permit review process with regulatory agencies. It is expected that restoration efforts will be on-site and in kind and consist of the same native species impacted and other associated native species known to occur within the project limits. Table 2.2 summarizes the expected types of mitigation at each project location.

[The following table has changed since the draft environmental document was circulated. Locations 2, 5, and 7 have been dropped from the project.]

Table 2.2 Summary of Mitigation

Project Location	Mitigation Anticipated
Location 1 at Post Mile 27.76	No jurisdictional waters are present, and no compensatory mitigation is proposed. Upland habitats impacted to accommodate temporary access will be restored with relevant vegetation and will not require wetland plant species to be restored.
Location 3 at Post Mile 30.10	Contains a three-parameter wetland (and coastal environmentally sensitive habitat area) in a coastal seep that will be subject to temporary impacts. Regeneration, restoration, and reestablishment of wetland species will occur in kind.
Location 4 at Post Mile 30.86	Contains a channel that has an ordinary high-water mark and a narrow strip of nearby riparian vegetation. Temporary impacts will occur in the channel up and downstream of the culvert. Temporary impacts to the channel and riparian zone will be replaced in kind.
Location 6 at Post Mile 33.87	No jurisdictional waters are present, and no compensatory mitigation is proposed. Upland habitats impacted to accommodate temporary access will be restored with relevant vegetation and will not require wetland plant species to be restored.
Location 8 at Post Mile 70.87	Contains jurisdictional other waters as well as a three-parameter wetland. All impacts will be temporary and replaced in kind.

California Red-Legged Frog

[The following section has been changed since the draft environmental document was circulated. With the removal of all locations containing California red-legged frog critical habitat, mitigation related to the California red-legged frog is no longer anticipated to be required.]

Along with the measures below, it should also be noted that Mitigation Measure BIO-9, discussed earlier under Wetlands, Other Waters, and Riparian Areas, would also help to reduce any potential impacts on California red-legged frogs.

BIO-10: Applicable measures from the Programmatic Letter of Concurrence between Caltrans and the U.S. Fish and Wildlife Service for California red-legged frogs shall be implemented. The Programmatic Letter of Concurrence 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. If any life stage of the California red-legged frog is detected, the U.S. Fish and Wildlife Service will be notified prior to the start of construction.
- Biologists to conduct worker environmental awareness training for construction personnel.
- A biological monitor shall be on-site until all disturbances to the habitat area are completed.
- Minimize the project footprint and locate access routes outside of potential habitat areas.
- Follow appropriate Caltrans Standard Specifications and Best Management Practices relevant to working near waterways, refueling, and trash storage.
- Work activities will take place during the dry season, between April 1 and November 1, when water levels are typically at their lowest and California red-legged frogs are likely to be more detectable. Unless approved by the U.S. Fish and Wildlife Service, water shall not be impounded in a manner that may attract California red-legged frogs.
- 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.
- Restore the site to natural contours and revegetate it with native plants suitable for the habitats within the project area.

Smith's Blue Butterfly

[The following section has changed since the draft environmental document was circulated. Caltrans has changed its determination on Smith's blue butterfly and no longer anticipates requiring a Programmatic Biological Opinion for Smith's blue butterfly.]

The project will have no effect on Smith's blue butterfly or its host plant; therefore, no avoidance and minimization measures are proposed.

[The following measures have been added since the draft environmental document was circulated. Measures for the Monarch Butterfly Overwintering Population were not previously included in the project.]

Monarch Butterfly Overwintering Population

The following avoidance and minimization measures will be implemented for overwintering monarch butterflies:

BIO-11: A roosting monarch survey will be conducted, and due to the dynamic nature of roosting sites, surveys will be done after the completion of the final environmental document and prior to construction.

BIO-12: Work within 500 feet of a confirmed overwintering site during the overwintering period (September 15–March 15) will be avoided as much as feasible. If work cannot be avoided, a biological monitor will be present during all work within the 500-foot buffer to survey for any signs of disturbance to roosting monarchs. Work will be stopped if roosts show signs of disturbance.

[The following measures have been added since the draft environmental document was circulated. Measures for the Crotch's bumblebee were not previously included in the project.]

Crotch's bumblebee

The following avoidance and minimization measures for Crotch's bumblebees will be implemented:

BIO-13: Focused surveys for Crotch's bumblebees will be conducted approximately one year prior to construction to allow for potential permit acquisition. If surveys identify areas of marginal to high habitat suitability, then additional surveys in the spring/summer prior to construction will be conducted.

BIO-14: If Crotch's bumblebees are detected, no work will occur at that culvert location until Caltrans has coordinated with the California Department of Fish and Wildlife to determine appropriate avoidance and minimization measures and obtain necessary approvals.

BIO-15: Preconstruction surveys will also be conducted within 48 hours prior to initial ground disturbance and vegetation removal.

[The following measures have been added since the draft environmental document was circulated. Measures for Migratory Nesting Birds were not previously included in the project.]

Migratory Nesting Birds

The following avoidance and minimization measures will apply to all birds protected by the Migratory Bird Treaty Act and California Fish and Game Code Section 3503:

BIO-16: If feasible, vegetation removal and tree trimming shall be scheduled to occur between October 1 and January 31, outside of the typical nesting bird season, which is February 1 to September 30. If vegetation removal or other construction activities are proposed to occur during the nesting season (February 1 to September 30), a nesting bird survey will be conducted by a Caltrans biologist no more than seven days prior to construction.

BIO-17: If an active nest is found, a qualified biologist shall determine an appropriate Environmentally Sensitive Area buffer or monitoring strategy based on the habits and needs of the species. The buffer area shall be avoided, or a monitoring strategy shall be implemented until a qualified biologist has determined that juveniles have fledged and are no longer reliant on the nest.

BIO-18: Trees to be removed will be noted on design plans.

BIO-19: No rodent control pesticides shall be used, including anticoagulant rodenticides such as brodifacoum, bromadiolone, difethialone, and difenacoum. This is a necessary precaution to avoid secondary poisoning to raptors that hunt and feed on rodents and other small animals.

Invasive Species

BIO-20: Only clean fill shall be imported. When practicable, invasive exotic plants on the project site shall be removed and properly disposed of. All 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.

BIO-21: Invasive species listed in the California Invasive Plant Council's Invasive Plant Inventory shall not be included in the Caltrans erosion control seed mix, erosion control plans, or planting plans.

BIO-22: The contract specifications for permanent erosion control will require using regionally appropriate California native forb and grass species that occur in the same general geographic area as the project site.

BIO-23: Mulches used on the project will be from source materials that will not introduce exotic species.

2.1.8 Greenhouse Gas Emissions

Avoidance, Minimization, and/or Mitigation 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: Limit idling to five minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).

GHG-2: Schedule truck trips outside of peak morning and evening commute hours.

GHG-3: 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 new technologies.

GHG-4: Earthwork balance; reduce the need for transport of earthen materials by balancing cut and fill quantities.

GHG-5: Supplement existing construction environmental training with information on methods to reduce greenhouse gas emissions related to construction.

GHG-6: Recycle existing project features on-site. This may include salvaging rebar from demolished concrete, processing waste to create usable fill, and maximizing the use of recycled materials that meet Caltrans' specifications for incorporation into new work.

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. A notice should be published in local news media of the dates and duration of the proposed construction activity. The District 5 Public Information Office would post a notice of the proposed construction and potential community impacts after receiving information from the resident engineer.

NOISE-2: Shield loud pieces of stationary construction equipment if complaints are received.

NOISE-3: Locate portable generators, air compressors, and other loud equipment away from sensitive noise receptors as feasible.

NOISE-4: Limit grouping major pieces of equipment operating in one area to the greatest extent feasible.

NOISE-5: 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-6: Consult district noise staff if complaints are received during the construction process.

The following Caltrans Standard Specification for noise control will also be implemented:

NOISE-7: To minimize impacts on residents' normal nighttime sleep activities, it is recommended that, whenever possible, construction work be done during the day. If nighttime construction is necessary, the noisiest construction activities will be done as early in the evening as possible. Caltrans Standard Specifications Section 14-8.02 Noise Control will be implemented. This standard specification requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 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, Minimization, and/or Mitigation 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.

2.1.21 Mandatory Findings of Significance

Avoidance, Minimization, and/or Mitigation Measures

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

Jurisdictional Wetlands, Other Waters, and Riparian Habitats

CUMULATIVE-1: Agencies with regulatory authority in jurisdictional areas include the U.S. Army Corps of Engineers, the Central Coast Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the California Coastal Commission. To facilitate an improvement in the health of this resource, these agencies should continue to support enhancement, restoration, and mitigation efforts wherever feasible.

California Red-Legged Frog

CUMULATIVE-2: 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. These agencies should continue to make efforts to support projects that improve habitat acreage and function for the California red-legged frog through enhancement and creation. Providing suitable contiguous habitats would make both of these species more resilient and resistant to decline.

Appendix D Required Consultation Documentation

[This appendix has been added since the draft environmental document was circulated.]

Agency consultation for this project has been accomplished through a variety of formal and informal methods, including project development team meetings, phone calls, emails, etc. Public participation was sought through the release and review of the Initial Study with Proposed Mitigated Negative Declaration. This appendix summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

Biology Coordination

- On January 11, 2021, Caltrans Biologist Connor Ritchie submitted online requests through the U.S. Fish and Wildlife Service Information for Planning and Consultation website (IPaC 2021) and via email to the National Marine Fisheries Service for updated official species lists for the project area. The official U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration/National Marine Fisheries Service species lists were received that day.

- On April 11, 2022, Caltrans Biologist Connor Ritchie submitted online requests through the U.S. Fish and Wildlife Service Information for Planning and Consultation website (IPaC 2022) and via email to the National Marine Fisheries Service for updated official species lists for the project area. The official U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration/National Marine Fisheries Service species lists were received that day.

- On May 23, 2023, Caltrans Biologist Alexandra Thiel met virtually with U.S. Fish and Wildlife Service biologist Deborah Kirkland to conduct Federal Endangered Species Act Section 7 technical assistance. Ms. Thiel stated that based on the design at the time, Caltrans would propose a Likely to Adversely Effect determination for the California red-legged frog. Ms. Thiel stated that Caltrans intends to use the Programmatic Biological Opinion. Since this date, the project design has been updated, and it has been determined that all effects on Smith's blue butterfly will be avoided and that a may affect but not likely to adversely affect determination will be used for California red-legged frogs due to the reduced scope and minor amount of habitat disturbance.

- On October 18, 2023, Caltrans Biological Intern Isabella Dollar submitted online requests through the U.S. Fish and Wildlife Service Information for

Planning and Consultation website (IPaC 2023) and via email to the National Marine Fisheries Service for updated official species lists for the project area. The official U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration/National Marine Fisheries Service species lists were received that day.

Caltrans will continue to conduct technical assistance with the U.S. Fish and Wildlife Service for Section 7 consultation.

Appendix E Comment Letters and Responses

[This appendix has been added since the draft environmental document was circulated.] This appendix contains the comments received during the public circulation and comment period from November 14, 2022, to December 16, 2022, retyped for readability. The comment letters are stated verbatim as submitted, with acronyms, abbreviations, and any original grammatical or typographical errors included. A Caltrans response follows each comment presented. Copies of the original comment letters and documents can be found in Volume 2 of this document.

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

Comment from the California Coastal Commission

Comment 1:

Project Description and Jurisdiction. There are some discrepancies within the Initial Study/Mitigated Negative Declaration regarding the jurisdictional setting for the project's permitting under the Coastal Act. To clarify, based on a preliminary review of jurisdictional mapping, it appears that two of the proposed work locations (post miles 27.76 and 29.63) are on land owned by the University of California, and thus are within the Coastal Commission's original jurisdiction under Coastal Act Section 30519. The other six locations (post miles 30.10, 30.86, 31.73, 33.87, 54.46, and 70.87) are on land owned by either Monterey County, California State Parks, or a private owner, and are outside of the Coastal Commission's retained jurisdiction. Thus, these six locations are within the Local Coastal Program jurisdiction of Monterey County.

Given this mixture of jurisdictions, Caltrans may elect to either apply for a separate Coastal Development Permit from the Coastal Commission and from Monterey County for the portion of the project within that authority's jurisdiction. Alternatively, the Coastal Act allows for a consolidated Coastal Development Permit process whereby the Commission evaluates one consolidated Coastal Development Permit application under the policies of the Coastal Act. This consolidated process would avoid the need to go through two separate Coastal Development Permit processes, subject to Monterey County agreeing to such consolidation. However, please keep in mind that the Coastal Act only provides for such consolidation where "public participation is not substantially impaired by […] review consolidation" (Public Resource Code Section 30601.3). Also, please be aware that staging, storage, signage, traffic diversion, and other temporary construction-related activities that constitute development would also be considered part of the project area for the purposes of Coastal Development Permit approval.

Response to Comment 1: Caltrans will request one consolidated Coastal Development Permit from the Coastal Commission and submit the request to Monterey County during the next project phase.

Comment 2:

Project Description and Jurisdiction. We would further like to clarify the statement on page 61 of the Initial Study/Mitigated Negative Declaration that a Federal Consistency Certification would also be required from the Coastal Commission. Please note that in most cases a Coastal Development Permit issued by the Coastal Commission to Caltrans serves as federal consistency review under the federal Coastal Zone Management Act, and therefore submittal of a separate consistency certification from Caltrans to the

Commission is not required. However, a Coastal Development Permit issued by a local government does not serve as federal consistency review.

Response to Comment 2: Caltrans has removed mention of a Federal Consistency Certification being required from the Coastal Commission in Appendix B of the Initial Study with Mitigated Negative Declaration. Caltrans will request one consolidated Coastal Development Permit from the Coastal Commission and submit the request to Monterey County during the next project phase. No other federal nexus is anticipated that would trigger a requirement for a Federal Consistency Certification or Determination for the project.

Comment 3:

Habitat and Wetlands. Table 2.1 of the draft Initial Study/Mitigated Negative Declaration lists the proposed project's estimated impacts on various wetland and terrestrial habitat types. We are pleased to see that Caltrans has sited and designed the various project elements to minimize habitat impacts such that the total estimated permanent impact acreages are relatively small (i.e., thousandths of an acre). We also note that Caltrans appropriately proposes to mitigate permanent impacts at a 3:1 ratio and temporary impacts at a 1:1. We suggest Caltrans quickly move beyond these ratios and include substantive mitigation proposals as part of the project and coordinate early with Coastal Commission staff to develop a full and adequate mitigation proposal. Mitigation remains a consistent source of permitting delays in the Coastal Zone, and early coordination is essential. Incorporating the necessary mitigation into the overall project will allow Commission and/or local government staff to evaluate the entire project for consistency with Coastal Act and Local Coastal Program policies so that the project may be permitted efficiently. We are happy to meet with you as soon practicable to discuss mitigation needs and options.

Response to Comment 3: Detailed mitigation and restoration plans will be further developed during the subsequent project design phase. Caltrans expects to provide plans with the application submittal for the coastal development permit for this project. At this time, given the limited scale of impacts, mitigation is anticipated to include on-site planting within the existing Caltrans right-of-way.

Comment 4:

Visual Resources. Based on the draft Initial Study/Mitigated Negative Declaration, the proposed work at each of the eight project locations present some permanent visual impact. These impacts would largely result from new inlet and outlet elements (i.e., headwalls, downdrain, flared end sections, rock slope protection) that would be visible from the roadside and/or the surrounding area. We appreciate that Caltrans proposes a handful of

measures (e.g., staining) to attempt to minimize the visual impact of introducing these hardscape elements into the highly sensitive Big Sur viewshed. We also recognize that Caltrans has determined that these measures lower the overall visual impact of the project to less than significant for the purposes of CEQA. Nevertheless, based on the information presented in the Initial Study/Mitigated Negative Declaration and the companion Visual Impact Assessment, Coastal Commission staff does not consider these measures sufficient for purposes of achieving consistency with the visual resources policies of the Coastal Act, the Big Sur Land Use Plan, and the Big Sur Coast Highway Management Plan. As such, we strongly advise Caltrans to identify opportunities to reduce the extent of these project elements or to propose additional minimization measures (e.g., burying elements when feasible, screening with native plantings). Absent further avoidance or minimization, we suggest that Caltrans propose compensatory visual mitigation to offset the unavoidable visual impacts associated with the project. Past examples of successful visual mitigation in the Big Sur Highway 1 corridor have included installing native vegetation to screen other existing infrastructure elements within or adjacent to the highway corridor, relocating utilities underground or under bridge decks, removing antiquated and unused highway signage, fencing, or other materials, and improving existing highway pullouts where appropriate. We would encourage District 5 to coordinate with Commission staff as soon as practicable to develop a visual mitigation proposal so that it may be timely incorporated into the project scope and avoid delaying the permitting process.

Response to Comment 4: Revegetation, including native shrub species, will occur at every work location, contributing to the screening of visible drainage elements. All work locations are being further analyzed for the feasibility of additional revegetation with larger species of native plants. Permanent erosion control plans and revegetation/restoration plans will be prepared during the design phase.

All drainage locations were further analyzed to identify opportunities to reduce the extent of the visible components through alternative design methods. The result was the removal of flared end sections from several locations. Further, three locations were removed from the project. Detailed drainage plans will be prepared during the design phase.

Comment 5:

Coastal Access. As listed beginning on page 62 of the draft Initial Study/Mitigated Negative Declaration, the Coastal Act and the Big Sur Land Use Plan contain policies protecting and promoting public coastal access. As the primary arterial through the Central Coast, Highway 1 is a critical resource for providing public access to and along the coast. Commission staff support Caltrans' plan to use the cut-and-cover construction method for the proposed culvert replacements in order to minimize impacts to sensitive habitat,

wetlands, and water quality. At the same time, we are mindful that the cut-and-cover method generally results in more significant temporary impacts to public coastal access than the jack-and-bore method of construction, primarily in the form of traffic restrictions (e.g., temporary lane closures, one-way traffic control). Given the importance of Highway 1 to public coastal access throughout the project area, we suggest that Caltrans schedule any traffic restrictions associated with construction to avoid the summer season, when coastal visitorship is highest, particularly on weekends and holidays.

Response to Comment 5: Caltrans understands the importance of coastal access for the public and considers access needs in the Transportation Management Plan. The project is expected to be completed in 80 working days; all days will require traffic control.

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

Comment 6:

Coastal Access. We further suggest that Caltrans avoid locating construction staging or storage within highway pullouts that are commonly used for public parking and coastal access. In particular, Caltrans should ensure that project activities at Location 8 (PM 70.87) do not impact the public's ability to park in the pullout at Monastery Beach, which is an extremely popular coastal access site, especially during the summer. These measures will help avoid significant impacts to public access and will ensure the project's consistency with the public access policies of the Coastal Act and the Monterey County Local Coastal Plan.

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

Comment 7:

Coastal Access. We anticipate that Caltrans will develop a Traffic Management Plan, and we suggest that it be developed in advance of the Coastal Development Permit process, consistent with these suggestions. Significant blockages of public access pullouts, if approvable, will also require compensatory mitigation.

Response to Comment 7: Caltrans intends to provide the Draft Traffic Management Plan with the coastal development permit application for this project.

Comment from the California Department of Fish and Wildlife

Comment 1:

Nesting Birds. Suitable habitat for nesting birds is present in the Project area at each of the culvert locations, but the Initial Study/Mitigated Negative Declaration did not describe potential impacts to nesting birds or provide avoidance and minimization measures. A variety of bird species may nest in vegetation to be cleared for the project or on the ground. Without appropriate avoidance and minimization measures for nesting birds, potential significant impacts that may result from Project activities include inadvertent nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals. Construction activities that kill nesting birds, including eggs or young would be a violation of Fish and Game Code and potentially the Migratory Bird Treaty Act, depending on species. Wild bird populations in the continental U.S. and Canada have declined by almost 30% since 1970. Population loss is not restricted to rare and threatened species but includes many widespread and common species that may be disproportionately influential components of food webs and ecosystem function. Project activities have the potential to significantly impact local bird populations.

California Department of Fish and Wildlife recommends that initial clearing and grading for this Project occur during the bird non-nesting season (California Department of Fish and Wildlife recommends February 1 to September 30, for this area). However, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season, the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of relevant Fish and Game Codes or the Migratory Bird Treaty Act, as referenced above. California Department of Fish and Wildlife recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. California Department of Fish and Wildlife also recommends that surveys cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, California Department of Fish and Wildlife recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, California Department of Fish and Wildlife recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, California Department of Fish and Wildlife recommends halting the work causing that change and consulting with California Department of Fish and Wildlife for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, California Department of Fish and Wildlife recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. California Department of Fish and Wildlife recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify California Department of Fish and Wildlife in advance of implementing a variance.

Response to Comment 1: Avoidance and minimization measures have been incorporated into the project to account for potential impacts on nesting birds. Please refer to measures BIO-16 to BIO-19 under Section 2.1.4, Biological Resources. Caltrans will continue to refine nesting bird no-disturbance buffers in coordination with the California Department of Fish and Wildlife during the Lake and Streambed Alteration permitting process.

Comment 2:

Crotch's bumblebee. Crotch's bumblebees have been documented to occur within the project vicinity. The Initial Study/Mitigated Negative Declaration did not describe this species. Suitable Crotch's bumblebee habitat includes grasslands, opening in woodlands, and upland scrub that contain requisite habitat elements, such as small mammal burrows. Crotch's bumblebees primarily nest in late February through late October underground in abandoned small mammal burrows but may also nest under perennial bunch grasses or thatched annual grasses, under brushpiles, in old bird nests, and in dead trees or hollow logs. Overwintering sites utilized by Crotch's bumblebee mated queens include soft, disturbed soil, or under leaf litter or other debris. California Department of Fish and Wildlife recommends that the Mitigated Negative Declaration include an impact analysis on Crotch's bumblebees.

Based on the information provided in the Mitigated Negative Declaration, potential ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local Crotch's bumblebee populations, if present. Presence could vary from year to year, so California Department of Fish and Wildlife recommends that presence be assumed in suitable habitat areas. Crotch's bumblebees nest in underground burrows and in thatch and unless these potential nest sites are avoided, Project-related ground disturbance could result in take of the species. Crotch's bumblebees were once common throughout most of the central and

southern California; however, they now appear to be absent from most of it, especially in the central portion of their historic range within California's Central Valley. Crotch's bumblebee research suggests there have been sharp declines in relative abundance of 98% and persistence by 80% over the last ten years. Crotch's bumblebees could potentially occupy suitable habitat areas within or adjacent to the Project area and Project-related ground disturbance in these areas could result in significant effects to the species.

California Department of Fish and Wildlife recommends that a qualified biologist conduct focused surveys for Crotch's bumblebees and their requisite habitat features to evaluate potential impacts resulting from ground- and vegetation-disturbance associated with Project ground disturbing activities. If surveys cannot be completed, California Department of Fish and Wildlife recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through March), consultation with California Department of Fish and Wildlife is warranted to discuss how to implement Project activities and avoid take. If a Crotch's bumblebee is observed in the Project area, consultation with California Department of Fish and Wildlife is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground-disturbing activities may be warranted. Take authorization would occur through issuance of an Incidental Take Permit by California Department of Fish and Wildlife, pursuant to Fish and Game Code Section 2081 Subdivision (b).

Response to Comment 2: An impact analysis of the Crotch's bumblebee has been added to Section 2.1.4, Biological Resources. Avoidance and minimization measures have been incorporated into the project to account for potential impacts on the Crotch's bumblebee. Please refer to measures BIO-13 to BIO-15 under Section 2.1.4, Biological Resources.

Comment 3:

Monarch Overwintering Habitat. Monarchs can be found overwintering along the California coast, specifically in non-native eucalyptus trees. Overwintering monarchs have been documented to occur near the Project area. The Initial Study/Mitigated Negative Declaration identified the presence of Eucalyptus Woodlands at several Project locations. Project-related activities have the potential to impact this special-status species. California Department of Fish and Wildlife recommends that the Mitigated Negative Declaration includes an impact analysis on monarchs with the potential to occur in the Project area. Without appropriate avoidance and minimization measures for the species mentioned above, potential significant impacts associated with the Project's construction include roost destruction, inadvertent entrapment, reduced reproductive success, and direct mortality of individual monarchs. Monarch populations have declined by more than 99% since the 1980s and loss and

degradation of overwintering groves are one of the main stressors. Protecting Central Coast areas where monarchs overwinter is a top priority for recovering western monarchs. Project activities have the potential to significantly impact the species by reducing possible overwintering habitat.

California Department of Fish and Wildlife recommends that a qualified biologist conduct a habitat assessment to determine if suitable is present to support monarchs. The qualified biologist should assess habitat following the Xerces Management Guidelines for Monarch Butterfly Overwintering Habitat. If suitable habitat is present, California Department of Fish and Wildlife recommends assessing presence of monarchs by conducting surveys following recommended protocols or protocol-equivalent surveys, such as the Western Monarch Count Protocol by the Xerces Society. California Department of Fish and Wildlife recommends avoiding disturbance to confirmed overwintering habitat by a buffer of at least 500 feet during the overwintering period (September 15 –March 15).

Response to Comment 3: An impact analysis of the monarch overwintering habitat has been added to Section 2.1.4, Biological Resources. Avoidance and minimization measures have been incorporated into the project to account for potential impacts on the monarch overwintering habitat. Please refer to measures BIO-11 to BIO-12 under Section 2.1.4, Biological Resources.

Comment 4:

Northern California Legless Lizard. Project-related activities have the potential to impact Northern California legless lizard, which has been documented in the Project vicinity. The Initial Study/Mitigated Negative Declaration identified potentially suitable habitat in the Project area. Project-related activities have the potential to impact this special-status species. California Department of Fish and Wildlife recommends that the Mitigated Negative Declaration includes an impact analysis on Northern California Legless Lizard with the potential to occur in the Project area. Without appropriate avoidance and minimization measures for the species mentioned above, potential significant impacts associated with the Project's construction include inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individual Northern California Legless Lizard. Habitat loss resulting from development is among the primary threats to special-status species. As a result, ground disturbance resulting from development of the Project has the potential to impact habitat that supports the Northern California Legless Lizard, which may result in significant impacts to local populations of these species.

California Department of Fish and Wildlife recommends that a qualified biologist conduct a habitat assessment to determine if individual project areas or their immediate vicinity contain habitat suitable to support Northern

California Legless Lizard. If suitable habitat is present, California Department of Fish and Wildlife recommends that a qualified biologist conduct preconstruction surveys to search for Northern California Legless Lizard, and capture any individuals found within the construction limits and relocate them at least 50 feet away from the construction zone.

Response to Comment 4: No suitable habitat for the Northern California legless lizard is present within the Biological Study Area. Therefore, no discussion has been added, and no further avoidance and minimization measures are proposed.

Comment 5:

Seaside Woolly Herbaceous Alliance. The ISMND identified the presence of the seaside woolly-sunflower – seaside daisy – buckwheat patches vegetation alliance but did not recognize that it is a sensitive natural community. California Department of Fish and Wildlife provides guidance on evaluating sensitive natural communities in environmental reviews. The Initial Study/Mitigated Negative Declaration identified permanent and temporary impacts to this plant community, both of which are due to clearing and grading the vegetation in this community for Project activities. Indirect impacts also include an increase in invasive species within and adjacent to Project impact areas. This alliance occupies a narrow band along the immediate coast of California, on rocky or sandy soils of California coastal strand along the North Coast and Central Coast. The biggest threat to dune and coastal habitats across California is the increase in non-native species. Although project impacts will be isolated and small, increases in non-native and invasive species could further degrade larger areas of this vegetation alliance.

Measures BIO-5 through BIO-8, BIO-16, and BIO-17 in the Initial Study/Mitigated Negative Declaration already includes measures to minimize introduction of invasive species and restore natural communities. California Department of Fish and Wildlife recommends the following additional measures to mitigate for temporary and permanent impacts to the seaside woolly herbaceous community and other native vegetation communities impacted by the Project:

- Offset permanent loss of seaside woolly herbaceous community by restoring areas dominated by invasive species with species from this community, as appropriate to the adjacent habitats.

- Develop planting pallets that include both early and later successional species of the impacted communities, with an emphasis on early successional species to compete with invasive species.

- Utilize local native plant materials, sourced from Santa Cruz, Monterey, or San Luis Obispo counties.

- Develop a mitigation and monitoring plan to ensure success at native vegetation growth and invasive species control in restored areas and the buffer around restored areas.

- Maintain restoration and buffer areas for at least 3 years after construction to control invasive species and replant natives, as necessary.

Response to Comment 5: The project has been designed to reduce impacts on the seaside woolly flower natural community to the extent feasible. Since the circulation of the draft environmental document, the project scope has been reduced, and permanent impacts on this natural community have been eliminated. As such, there will be no permanent impacts on this community type. There will be an estimated 0.062 acre of temporary impacts on this natural community. However, these impacts may likely be further reduced as the project design is refined. Temporary impacts to this natural community will be restored using an erosion control seed mix containing seaside woolly flowers and other native species within this community type. Additionally, the avoidance and minimization measures outlined for Wetlands, Other Waters, and Riparian Areas, BIO-3 to BIO-9, under Section 2.1.4, Biological Resources, will also protect this natural community. The project's Restoration and Monitoring Report will also address the restoration of the seaside woolly flower herbaceous alliance.

List of Technical Studies Bound Separately (Volume 2)

Climate Change Technical Report, October 2022

Historic Property Survey Report, January 2022

Historic Resource Evaluation Report, January 2022

Finding of No Adverse Effect, January 2022

Geologic Hazards Report, May 2022

Air Quality, Greenhouse Gas, Noise, and Water Quality Memorandum, August 2021

Floodplain Evaluation, March 2022

Visual Impact Assessment, September 2023

Natural Environment Study, November 2023

Paleontology Review Memorandum, February 2021

Hazardous Waste Memorandum, February 2021

Cumulative Impact Assessment, July 2022

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, January 2022
- Figure 4 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: Big Creek to Carmel Drainage Restoration
General location information: On State Route 1 in Monterey County
District number-county code-route-post mile: 05-MON-1-PM 27.76-70.87
Project ID number: 0521000006