Pescadero Minor Realignment Project

SAN MATEO COUNTY, CALIFORNIA
DISTRICT 4–SM–1 (PM 13.1/13.9)
1Y180/0422000443

Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment

Prepared by the
State of California, Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

November 2025

General Information about This Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment, which examines the potential environmental impacts of the alternatives being considered for the proposed project located in San Mateo County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- A copy of this document and the related technical studies can be requested and made available for review at the Caltrans District 4 office at 111 Grand Avenue, Oakland, CA 94612. This document may be downloaded at the following website: https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs.
- Attend the public meeting.
    - In-Person Meeting: Wednesday, December 3, 2025, 5:30 pm – 7:00 pm. La Honda-Pescadero Unified School District Office, 360 Butano Cutoff, Pescadero, CA 94060
- We'd like to hear what you think. If you have any comments about the proposed project, please attend the in-person public meeting and/or send your written comments via postal mail or email to Caltrans by the deadline.
- Send comments via postal mail to:
  Caltrans District 4
  ATTN: Olalekan Ajayi, Environmental Scientist
  P.O. Box 23660, MS:8B
  Oakland, CA 94623-0660
- Send comments via email to: Olalekan.Ajayi@dot.ca.gov
- Be sure to send comments by the deadline: **December 19, 2025**

What happens next:

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

Alternative Formats:

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Jeneane Crawford, P.O. Box 23660, MS:8B, Oakland, CA 94623-0660; (510) 390-3253 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

04-SM-1-PM 13.1/13.9
1Y180/0422000443

Road realignment on State Route 1 near Pescadero State Beach from Reservoir Road to Pescadero Creek Road in San Mateo County from post mile 13.1 to post mile 13.9.

Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C)
49 USC 303 and 23 USC 138

THE STATE OF CALIFORNIA
Department of Transportation

Cooperating Agencies: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service

Responsible Agencies: California Transportation Commission, California Coastal Commission, San Mateo County, San Francisco Bay Regional Water Quality Control Board, California Department of Fish and Wildlife

David Ambuehl
David Ambuehl (Nov 12, 2025 15:53:03 PST)

DAVID D. AMBUEHL
Acting District Director
California Department of Transportation
CEQA/NEPA Lead Agency

Date

The following persons may be contacted for more information about this document:

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Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to realign the existing roadway approximately 32 feet to the east on State Route 1 near Pescadero State Beach from Reservoir Road to Pescadero Creek Road in San Mateo County from post mile (PM) 13.1 to PM 13.9.

DRAFT Determination

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Mitigated Negative Declaration is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on air quality, mineral resources, noise, population and housing, public services, and recreation.

In addition, the proposed project would have less than significant effects to aesthetics, agriculture and forestry resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, transportation, tribal cultural resources, utilities and service systems, and wildfire.

With the implementation of mitigation measures MM-BIO-1 (Unlined Wetland Drainage Ditch), MM-BIO-2 (Coastal Bluff Mitigation), MM-BIO-3 (Monterey Pine Habitat Mitigation), and MM-BIO-4 (Amphibian Wildlife Crossing Mitigation) incorporated, the proposed project would have less than significant effects to biological resources.

_____ _____

David D. Ambuehl
Acting District Director
District 4
California Department of Transportation

Date

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Chapter 1 Proposed Project

1.1 INTRODUCTION

Since 2007, the California Department of Transportation (Caltrans) has performed federal responsibilities for environmental decisions and approvals under the National Environmental Policy Act (NEPA) for highway projects in California that are funded or otherwise approved by the Federal Highway Administration (FHWA). These responsibilities have been assigned to Caltrans by FHWA pursuant to Title 23 United States Code (USC) Sections 326 and 327 and two Memoranda of Understanding signed by FHWA. Please see the Caltrans Standard Environmental Reference (SER) Volume 1, Chapter 38, "NEPA Assignment" for additional information.

Caltrans proposes a road realignment of State Route (SR) 1 near Pescadero in San Mateo County. The Pescadero Minor Realignment Project (project) is located on SR 1 from post mile (PM) 13.1 to 13.9 (see Figure 1-1). SR 1 in San Mateo County was built in 1939. This section of SR 1 is an important transportation artery that provides access to the coastal communities and state beaches between San Francisco, Santa Cruz, and the communities around Monterey Bay.

The project is funded by the 2022 State Highway Operation and Protection Program (SHOPP), under Program 201.131, the Major Damage Restoration Program.

Caltrans owns and operates SR 1. Caltrans, as assigned by the FHWA, is the lead agency under the NEPA. Caltrans is also the lead agency under the California Environmental Quality Act (CEQA) and is the project sponsor.

The project is included in the Metropolitan Transportation Commission's (MTC's) Bay Area Regional Transportation Plan (RTP), *Plan Bay Area 2050* (Association of Bay Area Governments [ABAG] and MTC 2021; RTP ID No. 21-T01-004). The project is in the 2025 Transportation Improvement Program (TIP), which was adopted by the MTC on September 25, 2024 (MTC 2024; TIP ID No. VAR170010). The FHWA approved the 2025 TIP on December 16, 2024.

Figure 1-1. Project Location Map

1.2 PURPOSE AND NEED

1.2.1 Purpose

The purpose of this project is to maintain the structural integrity and operation of SR 1.

1.2.2 Need

The project is needed due to the severe rutting in the shoulder and deep cracking in the roadway pavement within the project vicinity along SR 1. Coastal bluff erosion, deterioration, and damage surrounding the project area has been documented in a Damage Assessment Form by the Caltrans ivision of Maintenance.

Southbound SR 1 in the proposed project location is adjacent to the Pacific Ocean. Over the years, due to the proximity of SR 1 to the ocean storms, tidal action, wind, landslides, and sea level rise, the bluff to the west of the roadway has eroded to the point that it is now jeopardizing the structural integrity and viability of SR 1 (see Figures 1-2 through 1-4). Erosion of the coastal bluff has been a concern at this location as evidenced by past emergency efforts at and near this location to protect SR 1 from erosion. Repeated emergency maintenance attempts to repair this area have been met with varying degrees of success and have only provided a temporary solution at this location. The proposed project would greatly reduce the risk for additional maintenance work (such as emergency rock slope protection placement and fill) to the roadway until a future, more permanent, major realignment project is constructed.

To ensure stability, it is recommended that the roadway of SR 1 be realigned toward the east, where the ground is more stable and can help prevent further damage caused by the deterioration of the bluff.

Figure 1-2. Roadway Depression. This figure shows a roadway depression where the road surface and underlying support is sinking due to erosion occurring below the roadway surface.

Figure 1-3. Roadway Cracking. This figure shows cracks running along the roadway surface, a symptom of underlying erosion occurring below the surface of the roadway.

Figure 1-4. Cracks Running Longitudinally to the Roadway Surface. These areas are also indicators of subsurface failure of the support of the roadway surface due to erosion occurring at the bluffs and under the roadway embankment.

1.2.3 Independent Utility and Logical Termini

FHWA regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that the action evaluated:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.

2. Have independent utility or independent significance (be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made).

3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Logical termini are defined as (1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts. Independent utility, or independent significance, is defined as being a usable and reasonable expenditure even if no additional transportation improvements in the area are made.

The proposed project has independent utility because no additional transportation improvements would be needed to satisfy the purpose and need. The project would address the deficiencies of the roadway and includes all work necessary to complete the construction process.

The project has logical termini because immediately north and south of the project, the coastal bluff extends further to the west, and the roadway surface shows no signs of instability. There also has been no need for past emergency work immediately to the

north and south of the project limits. These limits will address a critical area of repeated potential failure due to coastal bluff erosion, particularly during periods of high surf events. While there are other areas further to the north and south of this proposed project with erosion concerns, those areas are lower risk of imminent need for repair and will be addressed with a proposed project to address the longer-term coastal erosion needs in this area and along a greater section of coastline in and around Pescadero.

1.3 PROJECT DESCRIPTION

This section describes the proposed action and the project alternatives developed to meet the purpose and need of the project while avoiding or minimizing environmental effects. The two alternatives under consideration are the No Build (or No Action) Alternative and the Build Alternative.

SR 1 in San Mateo County was built in 1939. This highway is an important transportation artery that provides access to the coastal communities and state beaches between San Francisco, Santa Cruz, and the communities around Monterey Bay. It also serves an important role for commercial, agricultural, recreational, and national defense purposes, as well as for residents who live in the small nearby coastal towns of Pescadero and San Gregorio that must commute to work outside of the area. Some portions of SR 1 experience frequent landslides and erosion that have closed the roadway for long periods of time or required rerouting vehicle traffic entirely.

The project limits are from PM 13.1 to PM 13.9 along SR 1 in San Mateo County. The project limits are also adjacent to Pescadero State Beach, owned and operated by California State Parks. There are residences scattered along SR 1 and Pescadero Creek Road. The small community of Pescadero is nearby as well. Most of the land in the area around the project limits is either undeveloped or agricultural.

1.4 PROJECT ALTERNATIVES

1.4.1 No Build (No Action) Alternative

The No Build Alternative would leave the roadway in the current condition and location without stabilizing it. This alternative involves taking no action to preserve the structural integrity of the roadway and leaves it in its current condition. If Caltrans does not realign the roadway, the continued deterioration of the bluff will result in further damage to the roadway, which could impact the safety of motorists and pedestrians. The roadway will become more susceptible to erosion due to sea level rise and high surf events, which could result in deep cracking and potholes. This will increase the need for constant repairs and maintenance, which would result in increased costs, delays, disruption, and inconvenience to the public who rely on the roadway in the long term. Moreover, the damage to the roadway could negatively impact the surrounding environment, causing soil erosion and water runoff that could lead to ecological degradation. Therefore, the

No Build Alternative is not a viable long-term solution for preserving the structural integrity of the roadway.

1.4.2 Build Alternative

This project proposes to realign a 0.5-mile stretch of SR 1 approximately 32 feet to the east, from PM 13.1 to PM 13.9 near Pescadero State Beach, between Reservoir Road and Pescadero Creek Road in San Mateo County (see Figure 1-5).

The realignment would include moving SR 1 to its proposed location. To support the newly relocated roadway surface, the realignment would have a new pavement structural section consisting of hot mix asphalt, aggregate base, and new pavement delineation and markers over the newly placed asphalt. There is existing K-rail, which is a temporary barrier, west of this existing segment of SR 1. The K-rail will be removed once the existing roadway segment is realigned. Currently, the roadway has 4-foot shoulders, and the realigned roadway will maintain the same 4-foot shoulder width.

To accommodate the realignment and improve drainage from it, the project includes relocating approximately 2,300 feet of an existing concrete-lined drainage ditch by installing a new 30-foot-wide unlined drainage ditch. The outer edge of the unlined drainage ditch would be installed approximately 20 feet east outside of Caltrans right of way (ROW). In addition to the 20 feet required for the unlined drainage ditch, an additional 10 feet outside of Caltrans ROW would be designated as a permanent drainage easement. The drainage easement would remain in place to allow for any necessary future maintenance of the proposed unlined drainage ditch. The new unlined drainage ditch would be created onsite as a first order of work to avoid temporal loss of aquatic habitat for special-status species and offset impacts to delineated Waters of the United States (U.S.), as well as California Coastal Commission (CCC) wetlands. During construction, a 5-foot temporary construction easement (TCE) would be required. The TCE would remain in effect only for the duration of project construction.

In the event that there is standing water in the existing concrete-lined drainage ditch, dewatering will have to occur to keep the ditch dry during construction. Temporary measures such as gravel bags or a small diversion pipe may be used to redirect the standing water. All dewatering activities would be conducted in accordance with Caltrans Best Management Practices (BMPs).

The proposed project would impact Environmentally Sensitive Habitat Areas (ESHAs) through the realignment of the roadway and the installation of the new unlined drainage ditch. All ESHAs will be mitigated onsite with the installation of the new unlined drainage ditch. After removing the old roadway pavement, the new drainage will be planted with a vegetation palette matching impacted sensitive natural communities to restore the area.

Vegetation removal of shrubs, grasses, and herbaceous plants would be required. There are 30 Monterey pine (*Pinus radiata*) trees that were identified within the project study area. These Monterey pines, while a native California tree species, are planted

outside of their native range. There are 22 Monterey pines that are expected to be removed to realign the roadway and install the new unlined drainage ditch. Existing trees and shrubs outside of clearing and grubbing areas would be preserved to the maximum extent feasible and provided with protection as needed. Revegetation, including temporary irrigation and plant establishment, will be required in the removed roadway segment and in other areas of vegetation removal. The old roadway segment would be removed and restored to a vegetated area using native plants to meet required mitigation obligations.

The project also proposes to upgrade six cross-culverts to at least 24-inch-diameter pipes and replace two longitudinal driveway culverts. An inlet and a riprap energy dissipator, consisting of rock slope protection (RSP), would be installed at each cross-culvert location (see Figure 1-6). Any above-grade drainage structures or pipes shall be treated with colors and/or textures that blend with the surrounding soils and vegetation.

The project would also upsize one of the six existing cross-culverts to at least 36 inches to function as an amphibian wildlife crossing. The upgraded culvert would increase the value and functionality of the habitat onsite by connecting proposed restoration areas on both sides of SR 1 and reducing roadway hazards to special-status species by facilitating species to cross under the roadway. The specific location would be identified during the design phase with the appropriate permitting agencies.

The Build Alternative would require one-way traffic control (i.e., one lane closure at a time) during construction. There are no full closures planned. Constructing a new roadway would include the following sequence of activities to maintain one lane of traffic during construction. The new unlined drainage ditch would be constructed first. Then the area where the new road would be constructed would be prepared for construction (including clearing and grading). The new road would be constructed 32 feet inland, and both ends of the new road would be connected to the existing roadway. Once the new roadway is installed and operational, the old roadway surface and supporting substructure would be converted, restoring it to a vegetated area using native plants that will meet required mitigation obligations.

Some vehicles may experience delays in crossing through the project area during times of one-way traffic control. Work on the project would occur during the day or potentially at night and could affect both workday commute and recreational travel. Access through the project area, and to nearby recreation areas, will remain open during construction. Reversible lane closures would be used when working at each end of the project area where the new highway meets the existing highway.

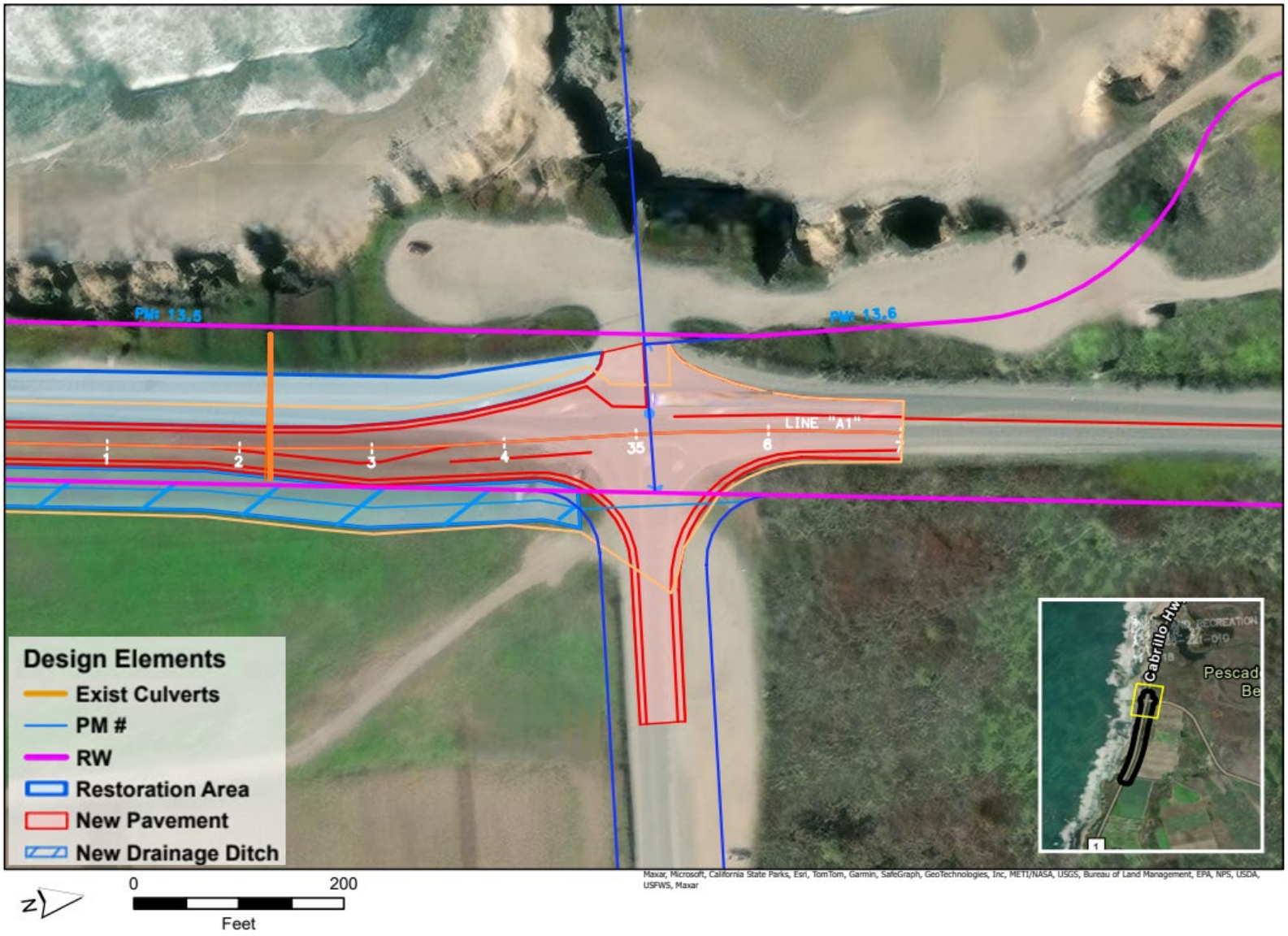


Figure 1-5. Project Elements (sheet 1 of 6)

Figure 1-5 (Continued). Project Elements (sheet 2 of 6)

Figure 1-5 (Continued). Project Elements (sheet 3 of 6)

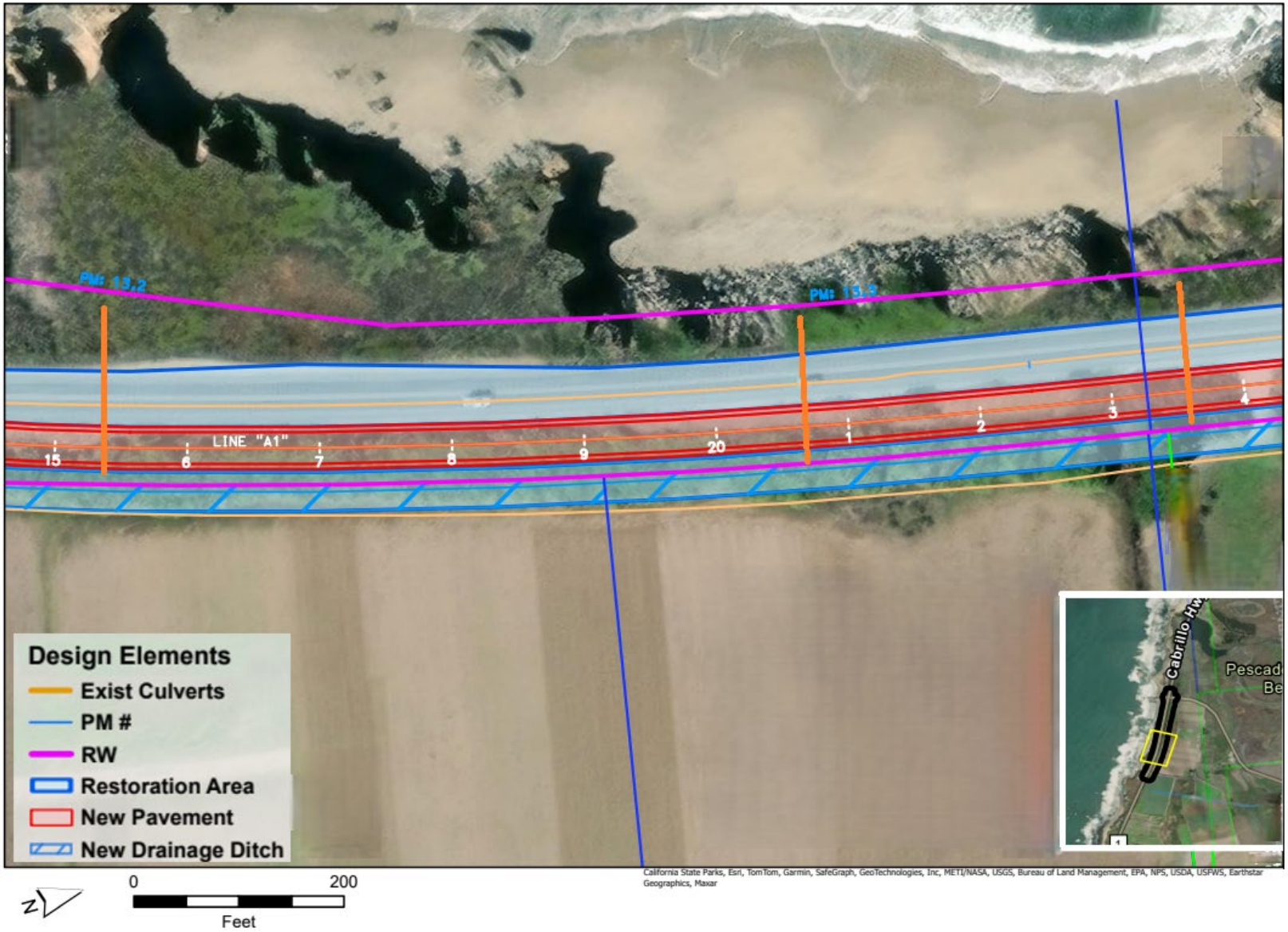


Figure 1-5 (Continued). Project Elements (sheet 4 of 6)

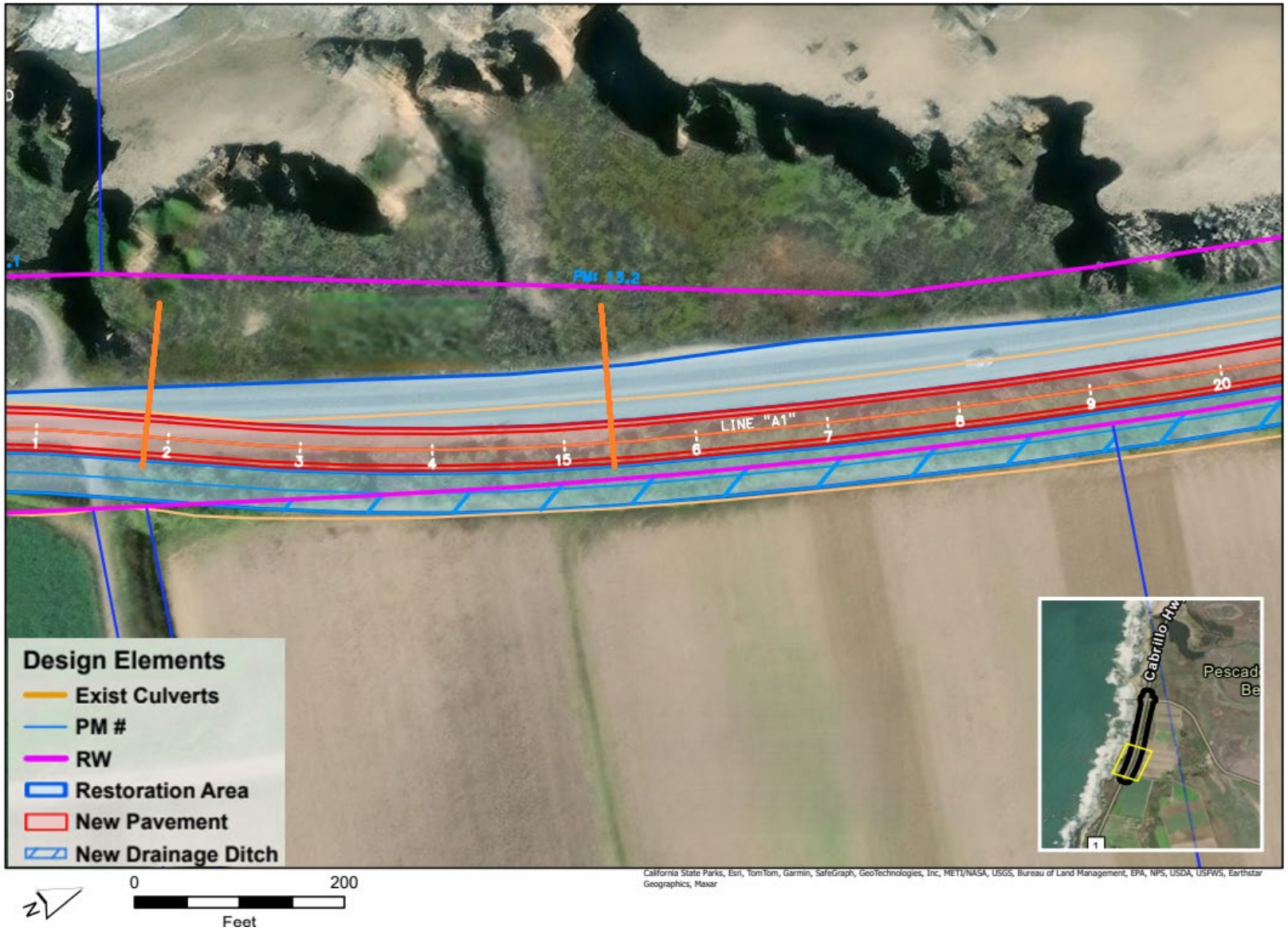


Figure 1-5 (Continued). Project Elements (sheet 5 of 6)

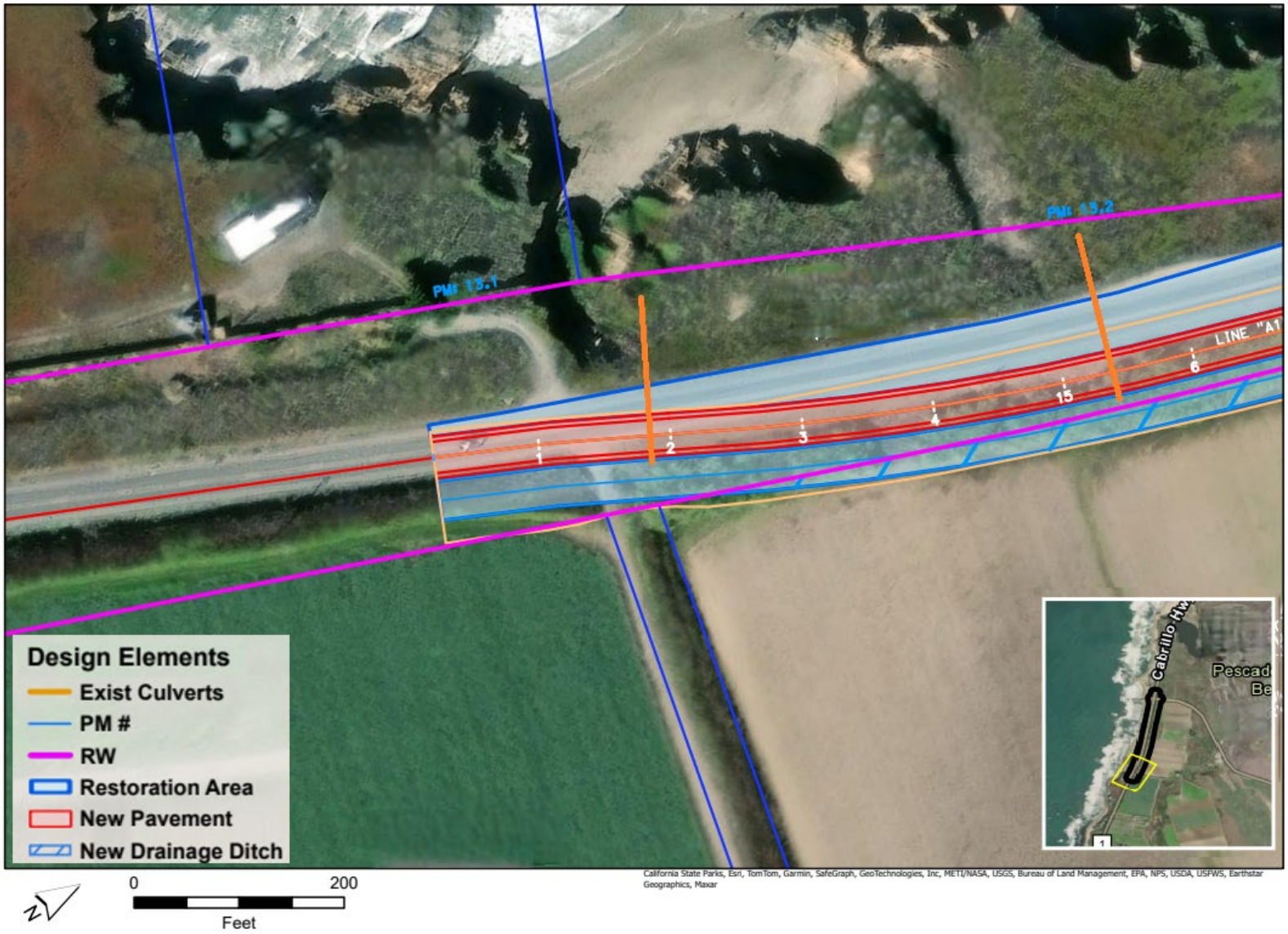


Figure 1-5 (Continued). Project Elements (sheet 6 of 6)

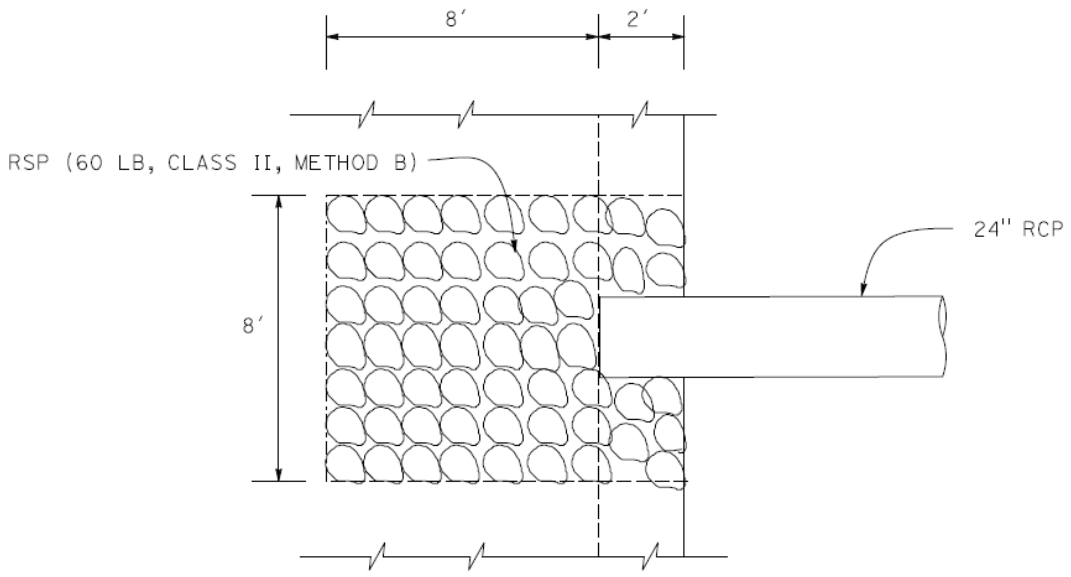


Figure 1-6. Drainage Details

During final design, a traffic management plan (TMP) will be developed to address traffic delays from project construction. The TMP would include outreach to inform agencies, California State Parks, and the public of the times and locations of upcoming construction, construction signs in and approaching the project area, and incident

management for traffic control in the vicinity of construction activities. Access will be maintained for emergency response vehicles at all times.

All staging is expected to occur within Caltrans ROW along SR 1. Unpaved roadside areas may be used if additional staging or storage is required. After construction is completed, the unpaved roadside areas would be returned to pre-existing conditions, including decompaction and soil amendment prior to the application of erosion control. Staging and storage will not impact access to Pescadero State Beach or the Pescadero Marsh Trail.

1.5 PROJECT FEATURES

This project contains a number of standardized project measures that are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the project. Project features (PFs) are separate from avoidance and/or minimization measures (MMs), which directly relate to impacts resulting from the proposed project. AMMs and MMs are discussed separately in Chapters 2 and 3.

PF-TR-1: Transportation Management Plan (TMP). During final design, a TMP will be prepared in accordance with Caltrans requirements and guidelines to minimize the construction-related delays and inconvenience for travelers and recreational users in the project area. The TMP will include dissemination of information to local agencies and property owners and will involve coordination with the California Highway Patrol (CHP).

PF-AQ-1: Contractor Air Quality Compliance. The contractor will adhere to Caltrans Standard Specifications for Construction, Sections 14.9-02 and 14-9.03, which require contractor compliance with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

PF-HAZ-1: Hazardous Material. During final project design, a Preliminary Site Investigation will be performed in accordance with current Caltrans guidance to investigate hazardous materials concerns related to soil and groundwater within the project limits and will include required measures for managing hazardous materials encountered during project construction.

PF-WQ-1: Temporary Water Quality Best Management Practices (BMPs). The contractor will adhere to the instructions, protocols, and specifications outlined in the most current Caltrans Construction Site Best Management Practices Manual and Caltrans Standard Specifications. At a minimum, protective measures will include the following:

- The discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses will not be allowed.

- Storing or servicing vehicles and construction equipment, including fueling, cleaning and maintenance, will be performed at least 50 feet from aquatic habitat unless separated by a topographic or drainage barrier or unless otherwise approved through the project's permits.
- Equipment will be maintained to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and a spill response plan will be developed. Hazardous materials such as fuels, oils, or solvents, will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.
- Temporary stockpiles will be covered.
- Graded areas will be protected from erosion using a combination of silt fences, fiber rolls, and erosion control netting (jute or coir), as appropriate.

PF-WQ-2: Permanent Water Quality and Stormwater Treatment. The project design will include permanent BMPs to avoid the potential for project-related stormwater discharges that would substantially alter drainage patterns, violate water quality standards, or substantially degrade water quality.

PF-GEO-1: Seismic Standards. Caltrans' design and construction guidelines incorporate engineering standards that address seismic risks. Project elements will be designed and constructed to meet seismic design requirements for ground shaking and ground motions, as determined for the project vicinity and site conditions.

PF-CUL-1: Discovery of Human Remains. If human remains are discovered during excavation, all work within 60 feet of the discovery would halt, and Caltrans' Cultural Resource Studies office would be called. Caltrans' Cultural Resources Studies Office Staff would assess the remains and, if determined human, would contact the County Coroner as per Public Resources Code (PRC) Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the Coroner determines the remains to be Native American, the Coroner will contact the Native American Heritage Commission who would then assign and notify a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on respectful treatment and reburial of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

PF-CUL-2: Discovery of Archaeological Resources. If archaeological materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a Caltrans qualified archaeologist can assess the nature and significance of the find.

PF-TCR-1: Discovery of Tribal Cultural Resources. In the event that Tribal Cultural Resources (as defined by local consulting Tribes and CEQA) are exposed during construction activities, all construction work occurring within 60 feet of the find shall immediately stop until a qualified archaeologist that meets the Secretary of the Interior Professional Qualifications for Archaeology can evaluate the significance of the find, in consultation with local Tribes, to determine whether or not additional study is warranted.

PF-WF-1: Minimize Fire Risks. BMPs would be incorporated, such as clearing vegetation from the work area, prohibiting the use of highly flammable chemicals, following locally changing meteorological conditions, and maintaining awareness of the possibility of increased fire danger during the time work is in progress.

PF-BIO-1: Revegetation. On project completion, all temporarily disturbed previously vegetated areas will be contoured to preconstruction grades, where appropriate, and replanted with appropriate native vegetation. Caltrans will prepare a revegetation plan, incorporating native species during the Plans, Specifications, and Estimates phase (referred to as final design).

PF-BIO-2: **Environmentally Sensitive Areas (ESA)**. Wetlands, waters, riparian habitat, designated critical habitat, and special-status species habitat will be delineated as ESAs on contract plans and defined in contract specifications. Appropriate protective measures, including installation of temporary high-visibility fencing, will be implemented during construction.

PF-BIO-3: Work Areas. All construction equipment will be restricted to operating within the existing roadway, pre-identified construction footprint, or staging locations.

PF-BIO-4: Trash Control. To eliminate an attraction to predators of protected species, all food-related trash items (e.g., wrappers, cans, bottles, and food scraps) will be disposed in solid, closed containers (trash cans) and will be removed from the project footprint and vicinity at the end of each working day.

PF-BIO-5: Firearm Restriction. No firearms will be permitted within the construction site at any time.

PF-BIO-6: Pet Restrictions. No pets will be allowed within the construction site at any time.

1.6 COMPARISON OF ALTERNATIVES

This section compares the Build Alternative and the No Build Alternative that are analyzed in this environmental document. The criteria for evaluation are primarily the respective alternatives' adherence to the project's purpose and need.

The Build Alternative meets the purpose and need of the project. Implementing the improvements described above would preserve the structural integrity of the roadway in a safe and cost-effective manner. The Build Alternative is anticipated to cost approximately $15.8 million to construct and take approximately 200 working days. Construction is anticipated to be completed in about one season.

Under the No Build Alternative, the roadway will remain in its current condition. If the proposed project is not constructed, continued storm seasons could cause highway failure, and the structural integrity of the highway would not be preserved. This alternative would not satisfy the purpose and need of the project.

1.7 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

There were no additional alternatives considered for this project.

1.8 PERMITS AND APPROVALS NEEDED

Table 1-1 summarizes the permits, licenses, agreements, and certifications that are required for project construction:

Table 1-1. Permits and Approvals

Agency	Permit/License/ Agreement/Certification	Status
U.S. Fish and Wildlife Service (USFWS)	Biological Opinion	The Biological Assessment is anticipated to be submitted to USFWS in Fall 2025. The Biological Opinion is expected to be obtained before the end of the environmental phase.
U.S. Army Corps of Engineers (USACE)	Nationwide Permit (anticipated) (Clean Water Act [CWA] Section 404)	When NEPA/CEQA clearance is received, permit application will be submitted.
California Department of Fish and Wildlife (CDFW)	Incidental Take Permit	When NEPA/CEQA clearance is received, permit application will be submitted.
San Mateo County Local Coastal Program	Coastal Development Permit under the San Mateo County Local Coastal Program Federal Coastal Consistency Certification	When NEPA/CEQA clearance is received, permit application will be submitted. For a summary of early coordination with coastal agencies, see Section 4.1.2. A Consistency Certification is expected after draft environmental document distribution.
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Water Quality Certification (CWA Section 401)	When NEPA/CEQA clearance is received, permit application will be submitted.
California Transportation Commission (CTC)	Vote to approve funds	Following environmental document certification, the CTC will vote to approve funding for the project.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

2.1 RESOURCE TOPICS DISMISSED FROM ANALYSIS

As part of the scoping and environmental analysis carried out for the project, the following environmental topics were considered, but no adverse impacts were identified. As a result, no further analysis is necessary about these topics in this document.

2.1.1 Existing and Future Land Use

The project would not change the land use of the existing roadway, or surrounding area. The project would be consistent with Caltrans land use policies. This project would not preclude future projects in the area.

2.1.2 Consistency with State, Regional, and Local Plans and Programs

The project would not change the existing land use. The project would not alter the number of travel lanes on SR 1. There are no applicable Habitat Conservation Plans or Natural Community Conservation Plans that overlap the project limits. For these reasons, the project would not conflict with any state, regional, or local plans and programs. The project is located within the Coastal Zone. Consistency with policies specific to the Coastal Zone are analyzed separately in this document in Section 2.2.1.

2.1.3 Wild and Scenic Rivers

The project would not affect any designated wild and scenic rivers.

2.1.4 Timberlands

New or additional ROW would not be required from a Timberland Production Zone for this project.

2.1.5 Growth

This project would not include infrastructure that would support or encourage future development or intensify any existing development. The project would not increase roadway capacity that may otherwise encourage or accommodate growth. Additionally,

much of the land surrounding the project limits is within Pescadero State Beach (part of the California State Parks), precluding future development or intensification.

2.1.6 Community Character and Cohesion

The project would not change existing community boundaries, physically divide an established community, or affect population, housing, or the regional or local economy.

2.1.7 Transportation

The project does not include any changes to the vehicular capacity of the roadway. The Build Alternative is not anticipated to change the operations or forecasted volumes of the roadway. The Build Alternative would require one-way traffic (i.e., one lane closure at a time) during construction. There are no full closures planned for the proposed project. Constructing a new roadway would include the following sequence of activities in order to maintain one lane of traffic during construction. The new unlined drainage ditch would be constructed first. Then the area where the new road would be constructed would be prepared for construction (including clearing and grading). The new road would be constructed 32 feet inland, and both ends of the new road would be connected to the existing roadway. Once the new roadway is installed and operational, the old roadway surface and supporting substructure would be removed and restored to a vegetated area using native plants that will meet required mitigation obligations.

Some vehicles may experience delays in crossing through the project area during times of one-way traffic control. Work on the project would occur during the day or potentially at night and could affect commutes and recreation travel. Access through the project area, and to nearby recreation areas, will remain open during construction. Reversible lane closures would be used when working at each end of the project area where the new highway meets the existing highway.

During final design, a TMP will be developed to address traffic delays from project construction. The TMP would include outreach to inform agencies, California State Parks, and the public of the times and locations of upcoming construction, construction signs in and approaching the project area, and incident management for traffic control in the vicinity of construction activities. Access will be maintained for emergency response vehicles at all times.

All staging is expected to occur within Caltrans ROW along SR 1. If additional staging or storage is required, the unpaved, roadside areas would be returned to pre-existing conditions, including decompaction and soil amendment prior to the application of soil stabilization. Staging and storage will not impact access to Pescadero State Beach or the Pescadero Marsh Trail.

2.1.8 Hydrology and Floodplain

There are no base floodplains within the project limits. As a result, changes resulting from the project will have no impacts on floodplains or localized hydrology.

2.1.9 Hazardous Waste/Materials

There are no known hazardous waste sites in the project vicinity that are included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 (the Cortese List). The project area is largely surrounded by California State Parks land and undeveloped land and does not have a history of development; therefore, soil contamination associated with prior land uses is not anticipated.

Caltrans will apply the requirements from the existing National Pollutant Discharge Elimination System (NPDES) permit and the Construction General Permit, along with standard BMPs for construction site management, to address hazardous waste from construction activities. During the project's design phase, a hazardous materials survey shall be conducted on site to ensure compliance with the National Emission Standards for Hazardous Air Pollutants (PF-HAZ-1 in Section 1.5).

2.1.10 Air Quality

Per 40 CFR 93.126, the project is exempt from air quality conformity because it involves the repair of damage caused by natural disasters. Additionally, the project is located in a rural area with no nearby sensitive receptors. Therefore, the project would not have an adverse health effect on sensitive receptors due to construction emissions.

2.1.11 Noise

This project does not qualify as a Type I or Type II project under 23 CFR 772. In addition, this project will not add more capacity or attract additional traffic from what is already present. There are no construction activities required that will generate significant sources of temporary noise during construction. As a result, there are no impacts from noise, and noise abatement does not need to be considered.

2.1.12 Paleontology

There are no paleontological resources within the project site.

2.2 HUMAN ENVIRONMENT

2.2.1 Coastal Zone

Regulatory Setting

This project has the potential to affect resources protected by the federal Coastal Zone Management Act of 1972. Under the Coastal Zone Management Act, coastal states are encouraged to develop coastal management programs.

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

Just as the federal CZMA 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 (LCPs). This project is subject to the County of San Mateo's local coastal program. LCPs contain the ground rules for development and protection of coastal resources in their jurisdiction consistent with the California Coastal Act goals. A Federal Consistency Certification will be needed as well. The Federal Consistency Certification process will be initiated prior to the completion of the final environmental document and will be completed to the maximum extent possible during the NEPA process.

Affected Environment

The project site is located within the San Mateo County portion of the California coastal zone (CCC 2024). Specifically, it is within an area zoned as Planned Agricultural District/Coastal Development District (PAD/CD).

The proposed project is located within San Mateo County LCP's jurisdiction. Caltrans will submit a Coastal Development Permit (CDP) application to San Mateo County during the final design phase.

<u>Pedestrian Access</u>

Existing pedestrian access is limited and primarily informal. Pedestrians typically use the roadway shoulders or nearby pullouts to access coastal viewpoints, bluff-top areas, and Pescadero State Beach. There are no formal sidewalks or crosswalks within the project limits.

Bicycle Access

Bicyclists share the paved roadway shoulder along this section of SR 1, as there are no dedicated bike lanes or formal facilities within the project limits. Bicycle use is largely recreational, with riders traveling along this section of SR 1 to reach coastal viewpoints, beach access points, and regional trails.

California Coastal Trail (CCT)

The CCT is a statewide network of public trails that, when complete, will provide continuous public access for pedestrians and bicyclists along California's coast. Within the project limits, there are currently no formal or constructed segments of the trail; however, there are future plans for a portion of the CCT to be built along this segment of SR 1.

Parking

Existing public parking is primarily located in a nearby parking lot outside of the project limits to the north, as well as informal pullouts along SR 1. These areas provide access to Pescadero State Beach. There are no formal parking facilities within the project limits.

Environmentally Sensitive Habitat Areas (ESHAs)

The project area includes coastal wetlands, marine habitats such as the Pacific Ocean, sea cliff habitat, designated critical habitat for special-status species, and sensitive natural communities/rare plants. ESHAs are identified based on their significant ecological value, including habitats that support rare, threatened, or endangered species, and areas crucial for wildlife migration and breeding. These habitats encompass diverse coastal environments, such as wetlands, estuaries, riparian corridors, and coastal sage scrub. The designation of ESHA aims to safeguard these areas from development and other disturbances that could degrade their ecological functions. A discussion of the impacts to ESHA can be found below in this section and is further discussed in Section 2.4, Biological Environment.

Visual/Aesthetics

The project area offers highly scenic coastal views, including ocean vistas, bluff-top landscapes, and adjacent natural habitats. Existing visual conditions are characterized by natural coastal features with minimal built infrastructure, aside from SR 1 and occasional pullouts. A detailed breakdown of the visual resources within this project can be found in Section 2.2.6, Visual/Aesthetics.

Environmental Consequences

No Build Alternative

Under the No Build Alternative, no construction or roadway improvements would occur. However, existing coastal resources would continue to be impacted by natural coastal processes, including the ongoing bluff erosion along SR 1. Public access and recreational resources, including future access to the CCT, informal pedestrian and bicycle routes, beach access points, and adjacent parking areas, may be compromised as portions of the bluff and trail alignment erode, which would not be consistent with Sections 30210, 30211, 30212, and 30252, which seek to maximize and protect coastal access. Public access would also be impacted in the event of erosion causing failure of SR 1 in this area, the severity of which could result in partial or full closure of SR 1. Visual resources, including ocean vistas, bluff-top landscapes, and natural shoreline features, would remain subject to change from natural coastal erosion, in line with Section 30251, which requires protection of scenic qualities.

In summary, while the No Build Alternative would avoid construction-related impacts proposed under the Build Alternative, the ongoing bluff erosion would continue to impact ESHAs, public access, and scenic resources within the project vicinity.

Build Alternative

Public Access

Caltrans Directors Policy DP-37, Complete Streets, establishes Caltrans' organizational priority to encourage and maximize walking, biking, transit, and passenger rail as a strategy to not only meet state climate, health, equity, and environmental goals but also to foster socially and economically vibrant, thriving, and resilient communities. To achieve its vision, Caltrans will maximize the use of design flexibility to provide context-sensitive solutions and networks for travelers of all ages and abilities.

Traffic speed is a critical aspect to walkability and safety. Faster speeds increase the likelihood of pedestrians being hit. At higher speeds, motorists are less likely to see a pedestrian, and even less likely to stop in time to avoid a crash (FHWA 2002).

An at-grade crossing at this location continues to pose risks due to the high posted speed limit of 55 miles per hour. Therefore, pedestrian crossing enhancements are not recommended at this location. Caltrans encourages the public to use the existing parking facilities at various state beaches, such as Pescadero State Beach, and minimize pedestrians having to cross from SR 1.

Due to unsafe conditions caused by bluff retreat on the west side of SR 1 and limited ROW on the east side, bicycle lanes would not be implemented on this project. However, bicyclists will still be able to use the shoulders that will be included with the roadway realignment to access recreational areas, such as Pescadero State Beach.

Public access will be maintained at its current level. Construction of the Build Alternative will reduce risk of unplanned closures of SR 1 due to erosion.

California Coastal Trail (CCT)

As no portion of the trail currently exists within the project limits, no direct or temporary impacts to an existing trail would occur. The project would not remove or alter any designated public access route, nor would it physically preclude the eventual development of this portion CCT. By relocating this segment of SR 1 inland, the realignment would not conflict with or impede future trail planning or implementation efforts.

Environmentally Sensitive Habitat Areas (ESHAs)

The proposed project would impact ESHAs through the realignment of the roadway and the installation of the new unlined drainage ditch. The proposed project would permanently impact a total of 3.127 acres of ESHAs.

All ESHAs will be restored by removing the old roadway pavement and establishing new wetland features on site. Restoration areas would be planted with a vegetation palette matching impacted sensitive natural communities to avoid loss of ESHA acreage. Trees impacted within the patch of Monterey pine habitat would be restored with native trees at an appropriate location on site or elsewhere within the coastal zone.

Further discussion of the ESHAs occurring within this project can be found in Section 2.4, Biological Environment.

Key provisions of the California Coastal Act (CCC 2019) and County of San Mateo LCP (SMC 2021) are provided below, along with an evaluation of consistency for the Build Alternative (see Tables 2-1 and 2-2).

Table 2-1. Key Provisions of the California Coastal Act

Policy Number	Coastal Resource/ Coastal Act Policy	Coastal Zone Assessment	Detailed Resource Discussion
Section 30210	Maximum public access and recreational opportunities shall be provided.	The Build Alternative would maintain existing public access to and along the coast. During construction, temporary one-way traffic control would be implemented along this section of SR 1 to maintain access for vehicles, pedestrians, and bicyclists, while construction activities are occurring. Temporary impacts to informal pedestrian paths and beach access points would be minimized through signage, controlled detours, and coordination with San Mateo County.	Section 2.2.1

Policy Number	Coastal Resource/ Coastal Act Policy	Coastal Zone Assessment	Detailed Resource Discussion
		This project does not include new crosswalks, but the roadway realignment would have 4-foot shoulders, like the existing roadway, which would remain available for bicycle use. Upon completion, pedestrian and bicycle access along the project corridor would remain consistent with existing conditions.	
Section 30211	Development shall not interfere with public access to the sea.	The Build Alternative would not interfere with the public's access to the coast. In addition, Caltrans would preserve the public's access to coastal resources by restoring and maintaining the structural integrity of the roadway.	Section 1.4, Section 2.2.2
Section 30212	New development Projects shall provide for public access to the shoreline and along the coast.	Access to the coast already exists near the project site via the Pescadero State Beach parking lot, and the Build Alternative would not affect this access.	Section 1.4, Section 2.2.2
Section 30252	Public Access	The public's access to coastal resources would be preserved, as described above.	Section 1.4, Section 2.2.2
Section 30230	Marine resources shall be maintained, enhanced, and where feasible, restored.	The Build Alternative would not involve direct disturbance of marine resources, as construction is limited to the roadway and adjacent slope areas above the coastal bluff. To prevent indirect impacts from potential runoff or debris from construction activities, Caltrans BMPs would be implemented during construction, including sediment and erosion control measures, equipment staging outside of sensitive areas, and proper handling of construction materials.	Section 1.4, Section 2.2.1

Policy Number	Coastal Resource/ Coastal Act Policy	Coastal Zone Assessment	Detailed Resource Discussion
Section 30231	Biological activity; water quality	With the proposed Project Features, Avoidance and Minimization Measures (AMMs; AMM-BIO-1 through AMM-BIO-14), and Mitigation Measures (MMs; MM-BIO-1 through MM-BIO-4, the project would not have a significant effect on biological activity or water quality. Impacts will be mitigated (MM-BIO-1 through MM-BIO-4) at a 1:1 ratio. The details of the required mitigation and necessary monitoring and success criteria to ensure that the mitigation is successful will be detailed in a Habitat Mitigation and Monitoring Program.	Section 1.5, Section 2.4
Section 30232	Protect against oil, gas, petroleum, hazardous substances spill	With the proposed Project Feature PF-HAZ-1, the Build Alternative would not harm the environment due to a spillage of hazardous substances during construction.	Section 1.5
Section 30233	Diking, filling, dredging of wetlands	Based on the design and location of the proposed project, construction activities would have direct impacts to coastal wetlands and water bodies within the Biological Study Area (BSA). AMM-BIO-1 and MM-BIO-1 would reduce and mitigate these effects. See Section 2.4.2 for more information regarding this project's impacts to coastal wetlands.	Section 2.4.2
Section 30235	Construction altering natural shoreline	There would be no alterations to the natural shoreline as part of this project; the work would be confined to the highway prism.	Section 2.2.1
Section 30240	Environmentally Sensitive Habitat Areas (ESHA)	This project will directly impact ESHAs. See Section 2.4.1 for more details regarding impacts to ESHAs. AMM-BIO-1 and MM-BIO-1 through MM-BIO-3	Section 2.4.1

Policy Number	Coastal Resource/ Coastal Act Policy	Coastal Zone Assessment	Detailed Resource Discussion
		would reduce and mitigate these impacts.	
Section 30241-30242	Agricultural land	The Build Alternative will directly and permanently impact a small portion of Prime Farmland and Williamson Contract land for a drainage easement and temporary construction easement (TCE) in order to construct a new unlined drainage ditch. The project would not result is significant adverse effects for the ongoing agricultural operations of the affected properties.	Section 2.2.3
Section 30244	Archaeological/ Paleontological resources	The project would not affect paleontological resources. Potential effects to archaeological resources would be minimized through implementation of the measures described in Section 1.5.	Section 2.1.12, Section 2.2.7
Section 30251	Scenic and visual qualities	The project is consistent with the existing environment. AMM-VIS-1 and MM-BIO-2 would further protect and enhance visual qualities.	Section 2.2.6, Section 2.4.1
Section 30254	Public works facilities	The project would not change the function of SR 1 at this location; it would remain a two-lane highway.	Section 1.4
Section 30604	Coastal Development permits shall include a finding that the development is in conformity with public access and public recreation policies, housing opportunities for	The project would be in conformity with public access and public recreation policies. This project does not involve any opportunities for housing.	Section 2.2.1, Section 2.2.2, Section 3.6.11

Policy Number	Coastal Resource/ Coastal Act Policy	Coastal Zone Assessment	Detailed Resource Discussion
	low- and moderate-income persons.		
Section 30609.5	State lands between the first public road and the sea; sale or transfer	No state lands would be sold to a private entity as part of the project.	Section 1.4

Table 2-2. Key Components of the San Mateo County Local Coastal Program

Component Subject	San Mateo County Local Coastal Program Assessment
Locating and Planning New Development	The project would not have any effect on growth or require the development of public services and infrastructure. Caltrans would implement Project Features and AMMs to minimize the project's effect on water quality and archaeological resources in the project area.
Public Works	Highway capacity would not be increased as specified in Section 2.44b in the LCP. SR 1 would remain a two-lane road after construction. Vehicle access would be maintained throughout construction.
Housing	The project is located in a rural area of the SR 1 corridor and would not involve addition or removal of housing.
Energy	The project does not include the construction of any oil or gas wells, onshore oil facilities, pipelines or transmission lines, or alternative energy facilities.
Agriculture	The Build Alternative will directly and permanently impact a small portion of Prime Farmland and Williamson Contract land for a drainage easement and temporary construction easement (TCE) in order to construct a new unlined drainage ditch. The project would not result is significant adverse effects for the ongoing agricultural operations of the affected properties.
Aquaculture	The project would not affect aquaculture facilities or construct any new aquaculture facilities.

Component Subject	San Mateo County Local Coastal Program Assessment
Sensitive habitats	There are sensitive habitats within the project area. However, with implementation of Project Features, Avoidance and Minimization Measures, and Mitigation Measures, effects to these habitats would be less than significant.
Visual Resources	The project is consistent with the existing environment. AMM-VIS-1 and MM-BIO-2 would further protect and enhance visual qualities.
Hazards	The project would not introduce any new uses, structures, or persons to the project site. The project is in an area that could experience flooding. However, the project would not create features that would worsen impacts on the surrounding areas from such hazards.
Shoreline Access	The project would not impact shoreline access along SR 1. Shoreline access would be maintained throughout construction.
Recreation/Visitor Serving Facilities	The project would have no impact on recreation or visitor serving facilities.
Commercial Fishing/ Recreational Boating	The project would have no impact on commercial fishing or recreational boating.

Avoidance, Minimization, and/or Mitigation Measures

The project is consistent with all California Coastal Act and LCP policies except for Section 30231, 30232, 30233, 30240 of the California Coastal Act and the Sensitive Communities section from the LCP. However, with the implementation of Project Features described in Section 1.5 and the following measures, effects to resources protected by these coastal policies will be minimized and mitigated: AMM-VIS-1 (Section 2.2.6), MM-BIO-1 through MM-BIO-4 and AMM-BIO-1 through AMM-BIO-13 (Section 2.4). With the implementation of these measures and with the issuance of a CDP, the project will achieve consistency with all relevant policies.

2.2.2 Parks and Recreational Facilities

Regulatory Setting

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 USC 303, declares: that "…it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and
- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Responsibility for compliance with Section 4(f) has been assigned to Caltrans pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

The Park Preservation Act (California PRC Sections 5400-5409) prohibits local and state agencies from acquiring any property which is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

Affected Environment

This section of SR 1 is adjacent to Pescadero State Beach, a Section 4(f) resource. Pescadero State Beach is under the jurisdiction of the California State Parks and thus, is considered a public park protected under the Park Preservation Act of 1971 (PRC 2024). Pescadero State Beach runs along the entire southbound side of the proposed project. At PM 13.57, the beach can be accessed from a parking lot that is connected to SR 1. Only the portion of the parking lot driveway that conforms to the road is included in the project limits, and that property is within the Caltrans ROW.

The boundaries of Pescadero State Beach in relation to the project are shown in Figure 2-1.

Figure 2-1. Pescadero State Beach Boundaries

Environmental Consequences

No Build Alternative

The No Build Alternative would not directly affect Pescadero State Beach or any other park or recreation facilities near the project area. However, as the existing roadway continues to deteriorate and lose its structural integrity, highway failure of the existing roadway could affect access to Pescadero State Beach.

Build Alternative

There are parks and recreational facilities within the project vicinity that are protected by Section 4(f) of the Department of Transportation Act of 1966 (Pescadero State Beach). However, this project will not “use” those facilities, as defined by Section 4(f). Please see Appendix A under the heading “Resources Evaluated Relative to the Requirements of Section 4(f)” for additional details.

The Build Alternative would require work adjacent to Pescadero State Beach; however, the project would not encroach upon the California State Parks property. The project would use staging areas within Caltrans ROW and would not require any use of Pescadero State Beach parking lots for construction staging and access. Access to the beach and local trails, such as the Pescadero Marsh Trail, would be maintained at all times throughout construction.

Visitors to the State Beach come for beach access, picnic areas, and hiking. It is generally quiet at this location. Construction activities would be expected to add noise and dust to the ambient environment as well as increase traffic from construction equipment. Inclusion of AMM-PARK-1 would reduce effects to parks and recreation facilities during construction.

Avoidance, Minimization, and/or Mitigation Measures

AMM-PARK-1: Construction Notification. Caltrans will coordinate with California State Parks regarding the timing of construction activities that could affect Pescadero State Beach visitors so State Parks can alert visitors about any potential change in visitor experience.

2.2.3 Farmlands

Regulatory Setting

The Farmland Protection Policy Act (7 USC 4201-4209) requires federal agencies, such as FHWA and Caltrans, as assigned, to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

CEQA requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth.

Affected Environment

This section of SR 1 is adjacent to Williamson Act contract land and prime farmland, which has the best combination of physical and chemical characteristics for the production of crops (Figure 2-2). It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.

One parcel is prime farmland, and the other adjacent parcels are under nonrenewal status. Nonrenewal means that the Williamson Act contracts remain in effect for the remainder of their term but will not renew once they expire.

Figure 2-2. Williamson Act Qualifying Lands

There is approximately a total of 1.43 acres of farmland within the project footprint. Table 2-3 shows approximately how many acres from each parcel are within the project footprint.

Table 2-3. Existing Farmland within the Project Footprint

Assessor's Parcel Number (APN)	Acres
086-132-010	0.25 acres
086-121-030	0.28 acres
086-121-020	0.35 acres
086-121-050	0.55 acres

Environmental Consequences

No Build Alternative

The No Build Alternative would not directly affect prime farmland or Williamson Act lands near the project area. However, if the existing roadway continues to deteriorate and lose its structural integrity, highway failure of the existing roadway could affect adjacent farmland.

Build Alternative

For the Build Alternative, an estimated total of 0.26 acres of farmland will be temporarily impacted due to the temporary construction easement. An estimated total of 1.17 acres of farmland will be permanently impacted due to the drainage easement. Table 2-4 shows acreages of temporary and permanent impacts from each parcel.

Table 2-4. Proposed Farmland Impacts

APN	Drainage Easement (Permanent Impact)	Temporary Construction Easement (Temporary Impact)	Total Acres of the Parcel
086-132-010	0.17 acres	0.08 acres	16.30 acres
086-121-030	0.23 acres	0.05 acres	9.08 acres
086-121-020	0.30 acres	0.05 acres	1.93 acres
086-121-050	0.47 acres	0.08 acres	21.72 acres

The conversion of the farmland to the drainage easement would not compromise the long-term agricultural capability of the farmland parcels remaining acreage. The project would be considered a compatible use of Williamson Act lands and the requirements of San Mateo County. Therefore, the project would not result in significant adverse impacts to farmlands.

The requirements of the Farmland Protection Policy Act apply to this project. Caltrans has completed Parts I, III, and VI of Form CPA-106 for corridor-type projects. The Total Site Assessment points in Part VI for this project is 70 points. Caltrans will coordinate with the NRCS and provide a copy of the completed form in the final environmental document.

Avoidance, Minimization, and/or Mitigation Measures

There are no proposed avoidance, minimization, and/or mitigation measures.

2.2.4 Relocations and Real Property Acquisition

Regulatory Setting

Caltrans' Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and 49 CFR 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly and

consistently so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Please see Appendix B for a copy of Caltrans' Title VI/Non-Discrimination Policy Statement.

Affected Environment

This section of SR 1 is adjacent to private properties. The land within and surrounding the proposed project consists primarily of agricultural fields and rural residential parcels. See Section 2.2.3, Figure 2-2, for the parcels that are within the project footprint and Section 2.2.3, Table 2-3, for the number of acres from each parcel that are within the project footprint.

Environmental Consequences

No Build Alternative

The No Build Alternative would not directly affect private properties near the project area. However, if the existing roadway continues to deteriorate and lose its structural integrity, highway failure of the existing roadway could affect adjacent private properties.

Build Alternative

The Build Alternative would require a combination of ROW acquisitions to construct the unlined drainage ditch. These acquisitions include a drainage easement, which is considered a partial acquisition because the property owner retains the fee title to the land, but grants Caltrans the right to use the property to maintain the unlined drainage ditch. Approximately 1.17 acres of land would be used to construct the unlined drainage ditch and provide long-term access for maintenance. This acquisition would be a full acquisition and would permanently transfer fee title for this acreage to the State of California for transportation use.

In addition, approximately 0.26 acres of private property will be needed for a TCE during the duration of the project to complete all project activities. The TCE would expire once the project is completed.

No full parcel acquisitions or relocations are anticipated. For a summary of how much of each parcel will be temporarily and permanently impacted, please see Section 2.2.3, Table 2-4.

Avoidance, Minimization, and/or Mitigation Measures

Property owners affected by the drainage easement and TCE would be compensated in accordance with the Uniform Act and 49 CFR 24. No relocations are anticipated.

2.2.5 Utilities/Emergency Services

Affected Environment

There are a limited number of overhead utility lines, owned by PG&E, along SR 1 within the project footprint that supply power to the Pescadero State Beach parking lot. The project site is not within the County's water or sewer and sanitation service areas (SMC 2024) There are no water or sewer lines within SR 1 in the project limits (SMC 2019).

The CHP has jurisdiction over the SR 1 corridor for matters involving traffic violations and emergency services. Police protection and traffic enforcement services in the surrounding area are provided by the San Mateo County Sheriff's Office and California State Park peace officers. Fire protection services in the project area are provided by the San Mateo County Fire Department.

Environmental Consequences

No Build Alternative

Under the No Build Alternative, this portion of SR 1 would not be realigned, and no construction activities would occur. Therefore, there would be no temporary lane closures or one-way traffic control. Traffic circulation along SR 1 would remain unchanged, and there would be no temporary effects on emergency access or response times.

However, the No Build Alternative would not correct the existing roadway deficiencies or address the ongoing coastal bluff erosion that threatens the structural integrity of SR 1 within the project limits. Over time, continued erosion could undermine the roadway, potentially leading to unplanned lane closures or roadway failures. Such conditions could impede access for emergency responders and the traveling public.

Build Alternative

Vehicle access across the roadway would be maintained throughout construction, allowing law enforcement, fire, and other emergency services uninterrupted access through the project area. Additionally, a TMP will be prepared for the project, which would include the development of contingency plans in coordination with CHP and local law enforcement (PF-TR-1 in Section 1.5). These contingency plans would address emergency access through the work zone, incident response protocols, and alternate routing in the event of unplanned roadway closures or other traffic disruptions. During construction, one-way traffic control would be implemented to accommodate construction activities. Temporary delays to emergency response times could occur. However, these delays would be minimal because emergency service providers would be notified in advance of construction schedules and lane closures. The project would not affect the number of lanes or other traffic operations on SR 1; therefore, there would be no long-term effects on emergency services. Impacts to emergency services would be temporary and would not result in significant adverse impacts.

Avoidance, Minimization, and/or Mitigation Measures

The project includes PF-TR-1 (Section 1.5), which provides for preparation of a TMP to minimize construction related delays and inconvenience for travelers and recreational users in the project area. No other avoidance, minimization, or mitigation measures are needed.

2.2.6 Visual/Aesthetics

Regulatory Setting

NEPA establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 USC 4331[b][2]). To further emphasize this point, the FHWA, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

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" (PRC Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water when feasible and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

Affected Environment

This section is based on the Visual Impact Assessment prepared for the project by Caltrans in July 2025.

SR 1 is an Officially Designated State Scenic Highway. This means viewer sensitivity is likely to be higher in general, and viewers will be more acutely aware of changes to the visual environment. The project is along the coastal side of the San Francisco Bay Estuarine Biogeographic Region of Northern California. The landscape is characterized by coastal bluffs, beaches and coastal rolling hills. The corridor is sporadically dotted with agricultural elements but is primarily undeveloped natural areas. Part of the Santa Cruz Mountain coastal range, the corridor follows the beaches and coastal bluffs while transversing a mix of low growing coastal strand and open grass lands with pockets of coastal forests, primarily in the drainages. The project limits are bordered on the coastal side by Pescadero State Beach to the west. The project limits are bordered on the east by the Pescadero River valley transitioning to private properties of agricultural land.

Views to the west are largely unobstructed and extend to the ocean and horizon line beyond the coastal bluffs. At the southern end of the project limits between Reservoir Road and Pescadero Road, views to the east are shielded by high, dense vegetation

bordering the highway. This vegetation creates a hedge and limits the viewshed to the roadway edge from the highway and screens views to the roadway from the adjacent highway neighbors along the property line and on Reservoir Road as it nears SR 1 from the east. The residences for these properties are set a considerable distance from the road and slightly above it, and from that vantage point the hedge and roadway are barely distinct. North of this area, approaching the intersection of Pescadero Road and beyond, the dense vegetation is absent, and views open to the Pescadero Creek basin and marsh in the foreground and rolling coastal hills in the background. Views are of coastal shrubs and low-lying vegetation in the foreground and the hills in the background.

Figures 2-3 through 2-6 reflect the maximum limits of the project as viewed from within the project limits outward. Views to the project from outside are considerably smaller, limited to Pescadero State Beach users looking south and east, distant views from Reservoir Road and from the two agricultural properties along the southeastern limits.

Figure 2-3. Representative View from Pescadero State Beach Parking Area Looking South at the Coast and Pacific Ocean

Figure 2-4. Representative View from Southbound SR 1 Approaching the start of the Eastward Roadway Realignment

Figure 2-5. Representative View from Northbound SR 1 Approaching the Middle of the Roadway Realignment

Figure 2-6. Representative View from Reservoir Road East of SR 1

Environmental Consequences

The methodology for determining environmental consequences for visual resources is to determine whether is a visual change (as measured by compatibility and contrast) and combine the change with visual sensitivity (as measured by both viewer sensitivity and viewpoint sensitivity). The consequences described in the Visual Impact Assessment are reported as beneficial, neutral, or adverse. These consequences do not equate directly to effects determinations under NEPA. However, they provide a framework for determining the NEPA effects.

No Build Alternative

The No Build Alternative would not involve any vegetation removal or any construction. Therefore, it would not result in changes to the visual resources.

Build Alternative

The realignment of the highway will result in vegetation removal along the eastern side of SR 1 but will not significantly alter views to the ocean or coastal hills. The vegetation removal will open views to adjacent agricultural land in the foreground and preserve distant views to the hills. Consequently, visual impacts are minimal to low with the low change to visual character and quality and preservation of the highly valued views to the ocean and surrounding hills along SR 1.

Pescadero State Beach users will experience the project within their southern and eastern viewshed. From this location, viewers are lower than SR 1 and the vegetation and properties to the east are screened, before views open up to the southeast. This

viewshed will remain the same condition with the project. From the parking lot above the beach, they will have a similar expanded view to the east with the vegetation removal required to realign the highway. Hikers at the Marsh Creek Trailhead, east of the project along Pescadero Road have views towards the project from the trailhead before views diminish as the trail drops away as it moves northward.

The permanent visual change with this project will be negligible and will not create a substantial adverse effect on the scenic character or quality. The scope of the project remains compatible with the existing environment and will not introduce new features that would create contrast or otherwise detract from the vividness, intactness, and unity of the setting.

Avoidance, Minimization, and/or Mitigation Measures

The project includes PF-BIO-1 (Section 1.5), which provides for restoring temporarily disturbed previously vegetated areas to preconstruction grades, where appropriate, and replanting with appropriate native vegetation. The following measure will also be implemented to reduce the potential for visual impacts from the project.

AMM-VIS-1: Drainage Aesthetics. Any above-grade drainage structures or pipes shall be treated with colors and / or textures that blend with the surrounding soils and vegetation.

2.2.7 Cultural Resources

Regulatory Setting

The term “cultural resources,” as used in this document, refers to the “built environment” (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal law, cultural resources that meet certain criteria of significance are referred to as “historic properties,” and “traditional cultural properties.” Under state laws cultural resources that meet certain criteria of significance are referred to as “historical resources,” and “tribal cultural resources.” Laws and regulations dealing with cultural resources are described below.

The National Historic Preservation Act of 1966, as amended, sets forth national policy and procedures for historic properties that are, included in or eligible for listing in the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). Caltrans has entered into a Programmatic Agreement with FHWA, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the U.S. Army Corps of Engineers’ Sacramento District, San Francisco District, and Los Angeles District which streamlines and delegates certain responsibilities for Section 106 compliance to

Caltrans for projects with FHWA involvement. FHWA's responsibilities under the Programmatic Agreement have been further delegated to Caltrans under the NEPA Assignment Program.

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. Public Resources Code Section 5024.1 established the California Register of Historical Resources and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the California Register of Historical Resources and, therefore, a historical resource. In 2014, Assembly Bill 52 added the term "tribal cultural resources" to CEQA, and Assembly Bill 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources. Defined in Public Resources Code Section 21074(a), a tribal cultural resource is a California Register of Historical Resources or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource.

Public Resources Code Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the National Register of Historic Places listing criteria. It further requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register of Historic Places or are registered or eligible for registration as California Historical Landmarks. Caltrans has entered into a Memorandum of Understanding with the California State Historic Preservation Officer which streamlines and delegates certain responsibilities for Public Resources Code 5024 compliance to Caltrans for projects involving state-owned resources.

Affected Environment

The information in this section is based on the Section 106 Summary Memo prepared for the project in June 2025 by Caltrans Professionally Qualified Staff. The Summary Memo documents the determinations of the technical reports completed for the project including a Historic Property Survey Report, an Extended Phase I Study, a Finding of Effect Report, a Post-Review Discovery and Monitoring Plan, and an ESA Action Plan. The Finding of Effect Report will be completed prior to completion of the Mitigated Negative Declaration and Finding of No Significant Impact for the proposed project.

The study area for cultural resources is called the Area of Potential Effects (APE). The APE for the project represents the maximum extent of potential ground disturbance. The APE includes all areas that could be permanently or temporarily affected by the proposed project and is limited to the Caltrans ROW.

Records, Archival, and Field Review

A cultural resources records search was conducted by the Northwest Information Center (NWIC) of the California Historical Resources Information System. The records search identified one previously recorded cultural resource, CA-SMA-250. This resource

is a prehistoric archaeological site. No additional archaeological or built-environment resources were identified within the APE during the records review.

Caltrans Professionally Qualified Staff also visited the site in May 2025 to conduct a detailed field study. No historic buildings, structures, or new archaeological sites were found during this review.

Native American Consultation

Caltrans submitted a sacred lands search request to the Native American Heritage Commission (NAHC) on February 9, 2025, for a list of potentially interested Native American parties. In their response letter of February 16, 2025, the NAHC identified seven tribal contacts and identified no sacred sites in the vicinity. Caltrans sent letters initiating consultation under Section 106 of the NHPA and AB 52 to all Native American groups identified by the NAHC on March 22, 2025. Follow up attempts were made on May 23, 2024, to the Tribes that had not responded. Caltrans received requests for consultation with three Native American Tribes. Consultation will be on-going throughout the life of the project, including during final design and construction. See Section 3.6.18 for additional information about tribal consultation.

Environmental Consequences

No Build Alternative

The No Build Alternative would not include any ground-disturbing activities and, therefore, no historic properties would be affected.

Build Alternative

The proposed project would avoid the identified archaeological site. The archaeological site will be treated as an environmentally sensitive area and be protected and monitored during construction. Construction of the proposed project will have no adverse effects on cultural resources.

The proposed project finding pursuant to the January 2014 First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (hereafter, the PA) is anticipated to be *No Adverse Effect* for the Build Alternative.

Section 30244 of the California Coastal Act and the San Mateo County LCP call for the protection of archaeological resources. Since the proposed project would have no adverse effects on archaeological resources, it does not conflict with coastal zone policies.

Avoidance, Minimization, and/or Mitigation Measures

Project features will be implemented to provide for stopping work and performing further investigation if cultural resources are encountered during project construction (Section 1.5, PF-CUL-1 and PF-CUL-2).

Implementation of the following measures will minimize potential impacts to sensitive cultural resources.

AMM-CUL-1: Cultural Resources ESA. Archaeological ESAs will be delineated on the plans and described in the specifications. Appropriate protective measures including demarcations with flags or high visibility spray paint, or temporary high visibility fencing (THVF), access restrictions, and monitoring of the ESA boundaries by a qualified archaeologist and local Tribal representative will be implemented during construction.

AMM-CUL-2: Cultural Resources Monitoring. An Archaeological Monitoring Area (AMA) will be delineated/noted on the plans and described in the specifications. Appropriate protective measures including demarcations with flags or high visibility spray paint and monitoring by a qualified archaeologist and local Tribal representative will be implemented during construction within the AMA.

AMM-CUL-3: Cultural Sensitivity Training. Prior to the initiation of construction for the project, the project contractor, staff, and construction crews shall be made aware of the potential to encounter cultural resources and tribal cultural resources (including the traditional importance of resources such as cultural landscapes, significant waterways, and ethnobotanical plants) through a presentation provided by an archaeologist and a representative from local consulting Tribes.

AMM-CUL-4: Discovery for Potential Tribal Cultural Resources. In the event that previously unidentified cultural resources are discovered, construction activities will stop and tribal consultation protocols will be implemented. Recommendations for treatment and disposition of finds could include, but are not limited to, the collection, recordation, and analysis of any significant cultural materials, or the turning over of Tribal Cultural Resources to Tribal representatives for appropriate treatment.

2.3 PHYSICAL ENVIRONMENT

2.3.1 Water Quality and Stormwater Runoff

Regulatory Setting

Federal Requirements: Clean Water ActIn 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the U.S. from any point source (a discrete conveyance such as a pipe or a man-made ditch) unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System permit. This act and its amendments are known today as the Clean Water Act. The goal of the Clean Water Act is “to restore and maintain the chemical, physical, and

biological integrity of the Nation's waters." The following are important Clean Water Act sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.

- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request.

- Section 402 establishes the National Pollutant Discharge Elimination System, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. The State Water Resources Control Board and the Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems.

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers. For more information, please see the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. It predates the Clean Water Act and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" the definition of which is broader than the Clean Water Act definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by waste discharge requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and regulating discharges to ensure compliance with the water quality standards. In California, Regional Water Quality Control Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. In addition, the State Water Resources Control Board identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with the Clean Water Act Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (National Pollutant Discharge Elimination System permits or waste discharge requirements), the Clean Water Act requires the establishment of Total Maximum Daily Loads. Total Maximum

Daily Loads specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board administers water rights, sets water pollution control policy, issues water board orders on matters of statewide application, oversees water quality functions throughout the state by approving Basin Plans, Total Maximum Daily Loads, National Pollutant Discharge Elimination System permits, and regulates projects spanning more than one water board region. Regional Water Quality Control Boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

- **National Pollutant Discharge Elimination System Program**

  Municipal Separate Storm Sewer Systems

  Section 402(p) of the Clean Water Act requires the issuance of National Pollutant Discharge Elimination System permits for five categories of stormwater discharges, including separate municipal storm sewer systems. A municipal separate storm sewer system is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater.” The State Water Resources Control Board has identified Caltrans as an owner/operator of a municipal separate storm sewer systems under federal regulations.

  To comply with the permit, Caltrans developed a statewide Stormwater Management Plan to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California.

  Construction General Permit

  The State Water Board has also issued a statewide Construction General Permit that regulates stormwater discharges from construction sites that result in a disturbed soil area of 1 acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the Construction General Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to develop Stormwater Pollution Prevention Plans; to implement sediment, erosion, and pollution prevention

control measures; and to obtain coverage under the Construction General Permit. In accordance with Caltrans' Stormwater Management Plan and Standard Specifications, a Water Pollution Control Program is necessary for projects with a disturbed soil area less than 1 acre.

Affected Environment

This section is based on the Water Quality Study (September 2025) prepared for the project.

The climate in the project area is Mediterranean in character, with moderate temperatures and a rainy season between November through April. The annual precipitation averages at about 25-35 inches.

The project is within the Waddell Creek-Frontal Año Nuevo Bay and the Gazos Creek-Frontal Año Nuevo Bay Subwatershed. The project is also located in the San Mateo Hydrologic Unit, Pescadero Creek Hydrologic subarea #202.40. The water bodies near the project limits are Butano Creek, Pescadero Creek, and the Pacific Ocean.

The beneficial uses of Butano Creek include cold and warm freshwater habitat, wildlife habitat, fish migration, rare, threatened, or endangered species, and contact/non-contact water recreation.

The beneficial uses of Pescadero Creek include agricultural supply, cold and warm freshwater habitat, wildlife habitat, fish migration and spawning, rare, threatened, or endangered species, and contact/non-contact water recreation. Pescadero Creek is also determined to be sediment sensitive. The project drains primarily to Pescadero Creek, with portions of the site potentially contributing runoff to Butano Creek. Both creeks ultimately discharge to the Pacific Ocean.

SR 1 within the project limits is identified by Caltrans as being within a low-trash-generating area and therefore, this project is not required to implement trash control measures.

Environmental Consequences

No Build Alternative

No short-term, temporary, or long-term water quality impacts would occur during normal conditions under the No Build Alternative. However, the existing roadway would continue to deteriorate due to storm events and could result in debris falling into the existing water bodies within the project limits.

Build Alternative

The proposed project would result in 7 acres of disturbed soil area. It would also result in 1.75 acres of net new impervious surface area and 3.75 acres of replaced impervious surface area, for a total of 5.5 acres of new impervious surfaces. Given that the proposed project would result in more than 10,000 square feet of new impervious surfaces, stormwater treatment is required under the NPDES and Construction General

Permit. In addition, treatment will be required for compliance with the 401 Water Quality Certification that will be obtained for the project.

Water Quality Impacts

Potential long-term impacts to the existing water quality could result from the transport and deposition of sediment and vehicular-related pollutants, such as oil, wearing of brake pads, and litter from motorists. The removal of vegetation due to earthwork and from locations, such as contractor staging and stockpile areas, create disturbed soil areas. If not stabilized prior to completion of the construction phase, sediment could be discharged post-construction. Most of the project's runoff flows to Pescadero Creek, while some areas may drain to Butano Creek. Both creeks flow into the Pacific Ocean, which is also considered a receiving water body. While these receiving waters are connected, long-term impacts are expected to differ in scale. Pescadero Creek and Butano Creek, being smaller inland water bodies, are more sensitive to localized increases in sedimentation or pollutants. In contrast, the Pacific Ocean has a much larger capacity for dilution and dispersion, resulting in a lower potential for measurable long-term water quality impact. However, compliance with Caltrans stormwater management measures and post-construction BMPs will minimize potential effects to all receiving waters.

Temporary Water Quality Impacts

Construction activities will include dewatering of the existing concrete lined drainage ditch in order to avoid working in a wet environment. Temporary measures such as gravel bags or a small diversion pipe may be used to redirect the standing water. To prevent or reduce impacts, temporary Construction Site BMPs will be deployed for dewatering activities, sediment control, and material management.

Other potential temporary impacts to existing water quality could result from staging, active construction areas, and stockpiling, which may lead to the release of oil, grease, fuel, lubricants, and other vehicle-related pollutants, as well as sediment, litter, debris, sanitary and septic wastes, concrete waste, liquid waste, paint, and other chemicals associated with construction activities into receiving waters within and beyond the project sites. Potential impacts may include localized changes in pH, turbidity, dissolved oxygen, and temperature of receiving watercourses, which could temporarily affect fish, aquatic organisms, and other biological species.

The DSA for the project is 7 acres. The DSA is primarily associated with the installation of drainage systems, repair of landslide slopes, roadway improvements, and staging areas.

To comply with the conditions of the Caltrans NPDES Permit and to address temporary water quality impacts resulting from construction activities, the project will adhere to Standard Specification 13-2, "Water Pollution Control Program (WPCP)," and a WPCP will be prepared. Potential water quality impacts will be reduced to the maximum extent

practicable through proper implementation of the WPCP and incorporation of Standard Special Provisions for Temporary Construction Site BMPs into the project.

Permanent Water Quality Impacts

No permanent adverse impacts to water quality are anticipated as a result of the proposed project. While construction activities may cause temporary water quality impacts associated with staging, active construction areas, stockpiling, and ground disturbance, these effects would not persist once construction is complete. The project's DSA is 7 acres and is primarily associated with the installation of drainage systems, landslide slope repairs, roadway work, and staging areas. However, the incorporation of permanent treatment BMPs such as biofiltration swales, biostrips, or other approved post-construction treatment measures, will ensure that runoff is treated prior to discharge. As a result, no long-term degradation of water quality is expected. The project drains primarily to Pescadero Creek and Butano Creek, both of which ultimately discharge to the Pacific Ocean; however, because appropriate treatment BMPs will be implemented, no permanent impacts to these receiving water bodies are anticipated.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will consult with the San Francisco RWQCB – Region 2, the USACE, and the California Department of Fish and Wildlife (CDFW) to finalize an agreed-upon list of minimization and/or mitigation measures for the Section 401 Water Quality Certification, Section 404 Nationwide Permit, and Lake and Streambed Alteration Agreement, respectively.

AMM-WQ-1: Best Management Practices (BMPs). BMPs will be implemented to address the temporary water quality impacts resulting from project construction activities. BMP's will include the measures of soil stabilization, sediment control, wind erosion control, tracking control, non-stormwater management, and waste management/materials pollution control.

Special protection such as linear sediment barriers or gravel bag berms would be used to prevent sediments or construction materials from discharging into the storm drain and receiving waters. Temporary reinforced silt fence or high visibility fence may need to be placed at the perimeter of the work sites and along the edge of waters to prevent the contractor and equipment from encroaching on receiving waters. Detailed BMPs will be developed during the PS&E phase.

2.3.2 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under CEQA.

Affected Environment

Caltrans District 4 prepared a Preliminary Geotechnical Report (May 2025) for the proposed project.

Geology and Soils

The San Mateo coast near the project site consists of soils and Quaternary marine terraces overlying the Cretaceous Pigeon Point formation. Laminated to thickly bedded sandstones comprise most of the Pigeon Point formation with lesser amounts of well-bedded conglomerates, siltstones, and mudstones. Alternating beds of sandstone and mudstone at the project site dip steeply west and in several places appear to have been sheared by prior fault activity approximately normal to the coastline. Bedding shallows to the north of the project site where conglomerate beds are more abundant. The existing landslide is likely controlled by west-dipping beds and active wave erosion.

Soils mapped between PM 13.1 and PM 13.9 are the Baywood series which consist of deep, somewhat excessively drained soils, slow run off, rapid permeability, and formed in old sand dunes near the coast. Total thickness can be 7.5 feet (90 inches). The soil is neutral to strongly acid (pH 5.8-6.3), consisting of fine sand, loamy sand or loamy fine sand throughout the profile and is not stratified.

The soil in the southernmost portion of the realignment is the Elkhorn series which consists of deep, well drained fine sandy loam soils that formed in material weathered from alluvium from mixed rock sources. Solum thickness is 42 to 60 inches, well drained; slow to rapid runoff; moderately slow permeability with a pH of 6.1. The solum thickness in the project area refers to the combined depth of the upper and subsoil layers that have developed through natural soil-forming processes. These layers support vegetation and show evidence of weathering and biological activity.

Surface Conditions

SR 1 is situated on a marine terrace of rolling grasslands and pasturelands at an elevation of 47 feet in the south to 51 feet at the north. Drainage from adjacent fields collects in an existing concrete lined drainage ditch that parallels SR 1. This concrete lined drainage ditch feeds numerous cross-culverts that flow under the highway north and south of the slide. It is likely that water from the existing concrete lined ditch contributes to added pore water pressures and contributes to the instability of the site.

The Pacific Ocean is located 100 feet west of SR 1. The site has experienced documented coastal erosion, land sliding and subsidence. A RSP revetment lies along the southbound lane at the southern end of the project site. This revetment was placed in the early 2000s to minimize bluff erosion. Per the Office of Geotechnical Design's recommendation, the revetments placed in the early 2000s should be left in place as these have effectively prevented additional bluff erosion.

Subsurface Conditions

A west-directed landslide affecting SR 1 has been active since the early 1970s in the project location. The slide is a sea cliff detachment, which originally measured about 100 feet wide where it undermined southbound SR 1. In 2020, 2022 and 2023, site reconnaissance mapping documented recent slide-related cracking in northbound SR 1, about 2 feet east of the SR 1 center line. In addition, cracking has migrated northward from the original mapped slide along southbound SR 1, with the original slide failure enlarging to about 290 feet wide at present, as measured parallel with SR 1.

Seismic Hazards

Active land sliding is occurring at the site. The project is located 2.5 miles west of the San Gregorio Fault Zone. The site is not located within an Alquist-Priolo Earthquake Fault Zone or 1000 feet from any unzoned fault with an age of Holocene or younger. Therefore, the site is not considered susceptible to surface fault rupture hazards. The site is subjected to potential strong ground motion which may cause liquefaction of cohesionless and non-plastic silty materials which are likely present at the site.

The site is located near the coastline, therefore the risk for tsunami exists.

Environmental Consequences

No Build Alternative

Under the No Build Alternative, the roadway would continue to deteriorate and lose its structural integrity.

Build Alternative

Liquefaction and landslides have the potential to occur at the project site; however, the project would be designed to account for potential liquefaction and landslides. The project would not have an adverse effect on mineral resources or a mineral resources recovery site. The project would not have an adverse effect on a visually significant natural landmark or landform.

This project is located in the coastal zone. Section 2.2.1 provides a description of the project's consistency with various coastal policies. Section 3.2.5 provides additional analysis of sea level rise. The project would not exacerbate the hazards associated with sea level rise or tsunami.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of PF-GEO-1 (Section 1.5) would reduce the potential for impacts from seismic and geologic hazards. No avoidance, minimization, or mitigation is required.

2.3.3 Energy

Regulatory Setting

The Energy Policy and Conservation Act of 1975 established fuel economy standards for on-road motor vehicles sold in the United States. Subsequent federal Energy Policy

Acts (e.g., 1992, 2005) have been passed since the original act of 1975. The National Highway Traffic Safety Administration and U.S. Environmental Protection Agency set Corporate Average Fuel Economy standards for passenger cars and for light trucks (collectively, light-duty vehicles) and separately set fuel consumption standards for medium- and heavy-duty trucks and engines.

NEPA (42 USC 4332) requires the identification of all potentially significant impacts on the environment, including impacts on energy resources. Guidance for evaluating energy impacts of transportation projects subject to NEPA is outlined in FHWA's Technical Advisory T 6640.8A.

CEQA Guidelines require environmental documents include an analysis of a project's potential for significant environmental effects resulting from wasteful, inefficient, or unnecessary use of energy; or wasteful use of energy resources (Guidelines Section 15126.2[b]). The document must also describe feasible measures which could minimize inefficient and unnecessary consumption of energy (Guidelines Section 15126.4).

Affected Environment

SR 1 in San Mateo County was built in 1939. This highway is an important transportation artery that provides access to the coastal communities and state beaches between San Francisco, Santa Cruz, and the communities around Monterey Bay. It also serves an important role for commercial, agricultural, recreational, and national defense purposes, as well as for residents who live in the small nearby coastal towns of Pescadero and San Gregorio that must commute to work outside of the area.

The project limits are from PM 13.1 to PM 13.9 along SR 1 in San Mateo County. SR 1 is a state highway that runs along most of the Pacific coastline of California, and the entire section within the project limits is paved with asphalt. The designated scenic route serves as a major throughfare in San Francisco Bay Area and several other coastal urban areas. The project runs along the coastline adjacent to Pescadero State Beach, which is situated on SR 1.

Environmental Consequences

No Build Alternative

Energy will continue to be consumed during operation and maintenance of SR 1. The No Build Alternative will not involve construction and therefore will not result in construction energy consumption.

Build Alternative

Construction (Short-Term)

Activities that consume energy also generate by-products. GHGs are the most closely studied by-products of energy consumption because they are linked to climate change. To assess energy consumed by construction equipment and vehicles, the Construction Emissions Tool (CAL-CET 2021), version 1.0.3, developed by the California Department of Transportation, was used to quantify carbon dioxide (CO_2) emissions. U.S. EPA GHG equivalencies formulas were used to convert CO_2 to fuel volumes. Energy usage in

terms of fuel consumption and electricity is shown in Table 2-5. It was assumed that diesel will be used by all construction equipment and diesel, and gasoline and electricity will be used for worker's commute and construction vehicles.

Table 2-5. Construction Equipment/Vehicles Fuel Consumption

Build Alternative	Diesel Consumption (gallons)	Gasoline Consumption (gallons)	Electricity Consumption (kilowatt hours)
Total	15,322	4,265	3,548.159

There will be different phases in construction, and energy use will be dependent on construction equipment being used per activity of each phase. The construction activities are short-term, so the increase of consumption within the project area will also be short-term.

No long-term increase in energy use would occur.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required.

2.4 BIOLOGICAL ENVIRONMENT

2.4.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors, fish passage, and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act (FESA) are discussed in Section 2.4.5, Threatened and Endangered Species. Wetlands and other waters are discussed in Section 2.4.2.

Affected Environment

A *Natural Environment Study* (NES) was prepared in September 2025, and an *Environmentally Sensitive Habitats Areas Memorandum* was prepared in May 2025 to evaluate the effects of the proposed project on biological resources, including sensitive plants and wildlife species, and is the basis of this section.

The study area for all the resources in Section 2.4 is called the Biological Study Area (BSA). It consists of the project footprint (permanent or temporary impact areas, including staging and access areas), along with 100-foot buffer to account for indirect effects to biological resources. The total area of the BSA is approximately 17 acres. The

buffer areas were estimated based on the potential for project activities to cause noise, water quality, or geomorphic impacts.

Environmentally Sensitive Habitat Areas (ESHA)

ESHAs are protected under the California Coastal Act to prevent significant disruption and ensure that their ecological functions and biodiversity are maintained (Sections 30230, 30231, and 30240). ESHA designations typically are based on the presence of "rare" plants, animals, or habitat types, as identified by CDFW or other authorities. They also may include areas with exceptional value because of unique features, such as supporting species with unusual genetic traits or providing critical ecosystem functions, like wildlife movement corridors. ESHAs, as defined by the San Mateo LCP, and include:

- all critical habitat,
- all designated Essential Fish Habitat areas,
- all CCC defined wetlands/riparian areas,
- all habitat used by federally or state-listed wildlife species,
- all sensitive natural communities.

Approximately 14.57 acres of ESHA that includes one or more resources occurs within the project's BSA. The sensitive natural communities that were evaluated for presence within the BSA are shown in Table 2-6. The total ESHA in the BSA consists of a complex overlap of resources; therefore, the acreages of specific ESHA resources shown in Table 2-6 are not intended to be summed to obtain a total area for ESHA. The substantial overlap would result in the same areas being counted multiple times across most resource types.

Table 2-6. ESHAs Occurring in the BSA

ESHA Type	Total Acreage in the BSA
Wetlands: waters of the U.S.	0.108
Other Waters: other waters of the U.S. (OWUS)	0.179
Wetlands: wetlands waters of the State (WWOS)	0.187
Coastal Wetlands: CCCW Single-Parameter	0.031
Culverted Waters of the State	0.008
Subtotal Wetlands and Other Waters	**0.513**
Other ESHA: Marine Habitat	0.180
Other ESHA: Coastal Bird Beach Habitat	0.228
Other ESHA: Sea Cliffs	1.188
Other ESHA: Sand Dunes	0.000

ESHA Type	Total Acreage in the BSA
Other ESHA: Sensitive Natural Communities *Carex barbarae* Herbaceous Alliance	0.044
Other ESHA: Sensitive Natural Communities: *Eriophyllum staechadifolium - Erigeron glaucus - Eriogonum latifolium* Herbaceous Alliance	5.300
Other ESHA: Sensitive Natural Communities: *Juncus (effusus, patens) - Carex (pansa, praegracilis)* Herbaceous Alliance	0.118
Subtotal: Other ESHAs	**7.058**
Rare, Endangered, or Unique Species Habitat: California red-legged frog (CRLF) Designated Critical Habitat	2.467
Rare, Endangered, or Unique Species Habitat: CRLF and San Francisco garter snake (SFGS) upland dispersal habitat	13.175
Rare, Endangered, or Unique Species Habitat: CRLF, SFGS, and non-breeding aquatic habitat	0.325
Rare, Endangered, or Unique Species Habitat: Monterey pine	0.197
Rare, Endangered, or Unique Species Habitat: Groundfish Essential Fish Habitat	0.180
Rare, Endangered, or Unique Species Habitat: Northwestern pond turtle non-breeding aquatic habitat (Overlaps with CRLF and SFGS non-breeding aquatic habitat)	0.325
Subtotal: Rare, Endangered, or Unique Species Habitat[1]	**14.202**
TOTAL ESHA[1]	**14.570**

Notes:
1. Where multiple ESHA resource areas overlap, they are considered a single ESHA with multiple resources, and those areas are not quantified twice.

Vegetation

The BSA consists primarily of developed surfaces and ruderal vegetation in a rural and agricultural landscape. Surrounding non-urban/developed areas adjacent to roadways are either farmland, or largely contain weedy and non-native vegetation. Figure 2-7 depicts the following vegetation types identified within the BSA:

- Agricultural areas, 4.7 acres
- Barren and Sparsely Vegetated areas, 0.6 acres
- Developed areas, 0.4 acres
- Forest areas, 1.7 acres
- Herbaceous areas, 4.6 acres
- Major Road, 4.1 acres

- Shrubs, 0.5 acres

Within the BSA, 30 Monterey pines were identified on site, although these pines are not native to this area and outside of their native range. There is approximately 0.197 acres of Monterey pine habitat that is present, with 25 trees within this specific habitat. The 25 trees form a tree line east of the roadway and existing concrete-lined drainage ditch, and the remaining five trees are within the southwest corner of the BSA, at the driveway to the residence at 13187 Cabrillo Highway (Figure 2-8).

Sensitive Natural Communities

The sensitive natural communities that were evaluated for presence within the BSA include the following:

- 5.3 acres of *Eriophyllum staechadifolium – Erigeron glaucus – Erigonium latifolium* Alliance Seaside woolly-sunflower – seaside daisy – buckwheat
- 0.044 acres of *Carex barbarae* Herbaceous Alliance - White-Root Beds
- 0.118 acres of *Juncus* [*effusus, patens*] – *Carex* [*pansa, praegracilis*] Herbaceous Alliance - Soft and Western Rush – Sedge Marshes

Figure 2-9 depicts where the sensitive natural communities occur within the BSA.

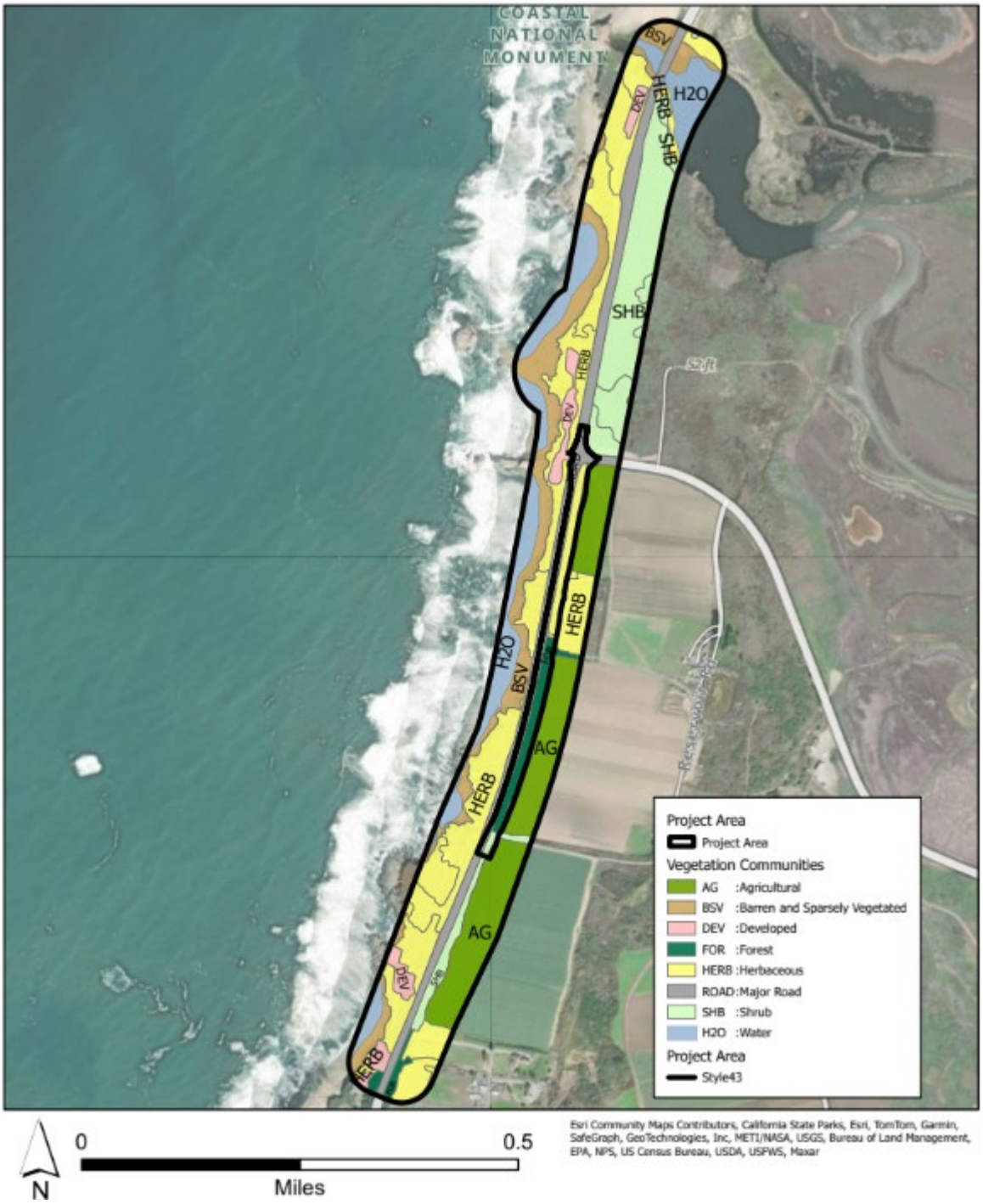


Figure 2-7. Vegetation Communities

Figure 2-8. Monterey Pine Habitat

Figure 2-9. Sensitive Communities within the BSA (sheet 1 of 3)

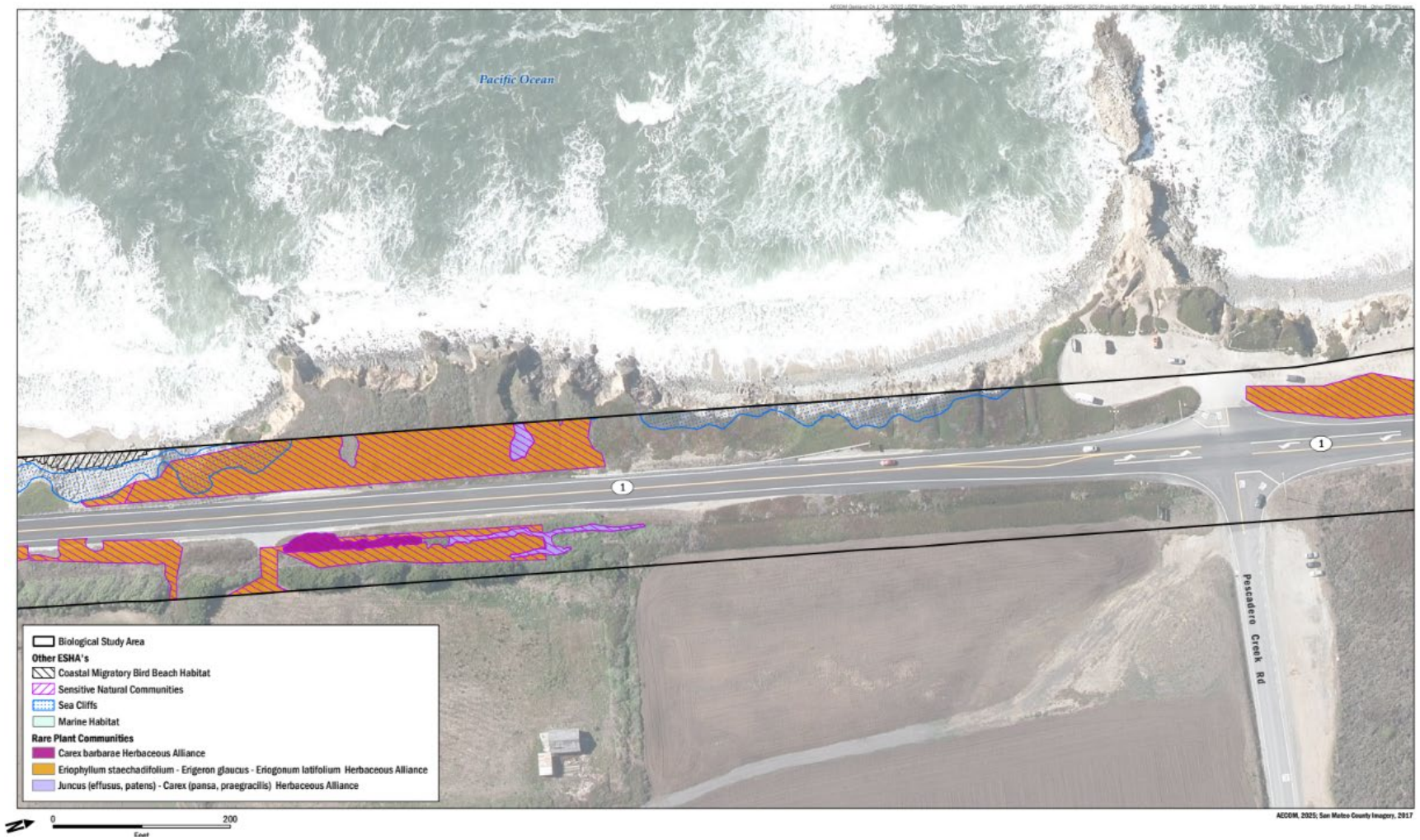


Figure 2-9 (Continued). Sensitive Communities within the BSA (sheet 2 of 3)

Figure 2-9 (Continued). Sensitive Communities within the BSA (sheet 3 of 3)

Essential Fish Habitat

No fish-bearing habitat is present within the BSA.

Environmental Consequences

No Build Alternative

Under the No Build Alternative, no construction or roadway improvements would occur. However, the existing sensitive communities would continue to be impacted by natural coastal processes, including the ongoing bluff erosion along SR 1. ESHAs, including bluff-top grasslands, riparian swales, and rocky shoreline habitats, could experience continued exposure or loss due to bluff retreat.

In summary, while the No Build Alternative would avoid construction-related impacts, the ongoing bluff erosion would continue to impact ESHAs and the sensitive natural communities within the project vicinity.

Build Alternative

Environmentally Sensitive Habitat Areas (ESHA)

The proposed project would impact ESHAs through the realignment of the roadway, and the installation of the new unlined drainage ditch. The proposed project would permanently impact a total of 3.127 acres of ESHAs. See Table 2-7 for a breakdown of which types of ESHAs will be impacted.

Table 2-7. Impacts to ESHAs

ESHA Type	Permanent Impact (acres)	Temporary Impact (acres)
Wetlands: Waters of the U.S.	0.090	0
Wetlands: WWOS	0.090	0
Coastal Wetlands	0.090	0
Culverted Waters: CWOS	0.008	0
Subtotal Wetlands and Other Waters	**0.098**	**0**
Other ESHA: Sensitive Natural Communities *Carex barbarae* Herbaceous Alliance	0.044	0
Other ESHA: Sensitive Natural Communities: *Eriophyllum staechadifolium - Erigeron glaucus - Eriogonum latifolium* Herbaceous Alliance	0.472	0
Other ESHA: Sensitive Natural Communities: *Juncus (effusus, patens) – Carex (pansa, praegracilis)* Herbaceous Alliance	0.043	0
Subtotal: Other ESHAs	**0.472**	**0**
Rare, Endangered, or Unique Species Habitat: CRLF and SFGS upland dispersal habitat	3.029	0

ESHA Type	Permanent Impact (acres)	Temporary Impact (acres)
Rare, Endangered, or Unique Species Habitat: CRLF, SFGS, non-breeding aquatic habitat	0.090	0
Rare, Endangered, or Unique Species Habitat: Monterey pine	0.197 22 trees	0
Rare, Endangered, or Unique Species Habitat: Northwestern pond turtle non-breeding aquatic habitat (Overlaps with CRLF and SFGS non-breeding aquatic habitat)	0.090	0
Subtotal: Rare, Endangered, or Unique Species Habitat[1]	**3.029**	**0**
TOTAL ESHA IMPACTS[1]	**3.127**	**0**

Notes:

1. Where multiple ESHA resource areas overlap, they are considered a single ESHA with multiple resources, and those areas are not quantified twice. These values are underlined in the table.
2. CRLF and SFGS upland habitat partially includes Monterey pine habitat and is included with the permanent impact.

Vegetation

Vegetation that will be impacted within the project footprint is limited to the Herbaceous, Shrub, and Forest types. Typical species in these areas include Nonnative annual grasslands include slim oat (*Avena barbata*), iceplant (*Carpobrotus edulis*), and seaside woolly-sunflower (*Eriophyllum staechadifolium*). Most species to be impacted along the roadside are invasives common to ruderal habitat, or in the case of the Monterey pine trees outside of their native range.

Sensitive Natural Communities

The proposed project would impact the *Eriophyllum staechadifolium* – *Erigeron glaucus* – *Erigonium latifolium* Alliance – Seaside woolly-sunflower – seaside daisy – buckwheat patches. Impacts on this vegetation community would include removal of vegetation, ground disturbance, and pruning. See AMM-BIO-1 and MM-BIO-2 below for more information.

Avoidance, Minimization, and/or Mitigation Measures

AMM-BIO-1: Wetlands and Waters Construction Work Windows. Work in wetlands, waters, and riparian habitat would be limited to June 15 through October 15, to avoid or minimize impacts on riparian habitat and special-status species habitat.

MM-BIO-1: Unlined Wetland Drainage Ditch. Approximately 1.68 acres of unlined drainage ditch would be established to restore coastal wetlands and waters onsite, as well as upland dispersal habitat for California red-legged frog (CRLF; *Rana draytonii*), San Francisco garter snake (SFGS; *Thamnophis sirtalis tetrataenia*), and northwestern pond turtle (NWPT; *Actinemys marmorata*) to at least a 1:1 ratio. Graded aquatic

features, liner stock planting and hydroseeding would restore the acreage of these resources to meet preconstruction conditions within a year of impact. The aquatic non-breeding habitat for CRLF, SFGS, and NWPT would be restored by reestablishing the wetlands, waters, and other ESHAs that provide aquatic conditions.

MM-BIO-2: Coastal Bluff Mitigation. Upland dispersal habitat for CRLF and SFGS would be restored to at least a 1:1 ratio on site by removing both the existing roadway, concrete lined drainage ditch, and restoring the landscape with appropriate coastal bluff terrace plantings. Approximately 2.07 acres of existing pavement would be removed to restore upland habitat onsite fully offsetting the 1.64 acres of realigned roadway. Restoration of the old roadway hardscape area would be performed at the end of the project once the new roadway is installed and operational.

MM-BIO-3: Monterey Pine Habitat Mitigation. Approximately 22 Monterey pines would need to be removed for this project. A palette of trees within their native range would be replanted to at least a 1:1 ratio to recreate the value of the ESHA. Restoration planting for this resource would be conducted near the location of existing trees at the ROW line, or at an offsite location within the coastal zone.

The acreage and method of ESHA restoration is shown in Table 2-8.

Table 2-8. ESHA Restoration Methods

ESHA Type	Permanent Impact (acres)	Temporary Impact (acres)	Restoration Area (acres)	Restoration Method
Wetlands: Waters of the U.S.	0.090	0	0.090	Coastal Wetlands and Waters will be restored within the replacement unlined drainage ditch.
Wetlands: WWOS	0.090	0	0.090	Coastal Wetlands and Waters will be restored within the replacement unlined drainage ditch.
Coastal Wetlands	0.090	0	0.090	Coastal Wetlands and Waters will be restored within the replacement unlined drainage ditch.
Culverted Waters	0.008	0	0.006	Culverted Water acreage will be reestablished beneath the new roadway.
Other ESHA: Sensitive Natural Communities *Carex barbarae* Herbaceous Alliance	0.044	0	0.044	*Carex* Sensitive Natural Communities will be restored onsite within the replacement unlined drainage ditch.
Other ESHA: Sensitive Natural Communities: *Eriophyllum staechadifolium - Erigeron glaucus - Eriogonum latifolium* Herbaceous Alliance	0.472	0	0.472	*Eriophyllum* Sensitive Natural Community will be restored where the previous roadway will be removed.
Other ESHA: Sensitive Natural Communities: *Juncus (effusus, patens) – Carex (pansa, praegracilis)* Herbaceous Alliance	0.043	0	0.043	*Carex* and *Juncus* Sensitive Natural Communities will be restored onsite within the

ESHA Type	Permanent Impact (acres)	Temporary Impact (acres)	Restoration Area (acres)	Restoration Method
				replacement unlined drainage ditch.
Rare, Endangered, or Unique Species Habitat: CRLF and SFGS upland dispersal habitat	3.029	0	3.029	Upland Dispersal Habitat for CRLF and SFGS will be restored on site at the replacement unlined drainage ditch and previous roadway.
Rare, Endangered, or Unique Species Habitat: CRLF, SFGS, non-breeding aquatic habitat	0.090	0	0.090	Non-Breeding Aquatic habitat will be restored within the drainage ditch, in areas graded to replicate aquatic features. A culvert will be upsized as well to improve habitat connectivity.
Rare, Endangered, or Unique Species Habitat: Monterey pine	0.197 22 trees	0.000	0.197 22 trees	*Hesperocyparis* or *Pinus* trees and habitat will be restored with trees within their native range onsite at a similar location to reproduce the value of the habitat, or at an appropriate site within the Coastal Zone.
Rare, Endangered, or Unique Species Habitat: Northwestern pond turtle non-breeding aquatic habitat (Overlaps with CRLF and SFGS non-breeding aquatic habitat)	0.090	0	0.090	Non-Breeding Aquatic habitat will be restored within the drainage ditch, in areas graded to replicate aquatic features.

2.4.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (33 USC 1344), is the primary law regulating wetlands and surface waters. One purpose of the Clean Water Act is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce.

Section 404 of the Clean Water Act establishes a regulatory program which is run by the U.S. Army Corps of Engineers with oversight by the U.S. Environmental Protection Agency. Certain permits require the identification of a “least environmentally damaging practicable alternative” to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, Executive Order 11990 states that a federal agency, such as FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board, the Regional Water Quality Control Boards and the California Department of Fish and Wildlife. Water Board definitions of Waters of the State are also outlined in the State Water Resources Control Board Procedures for Discharges of Dredge or Fill Material to Waters of the State. Waters of the U.S. are a subset of waters of the state. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required.

The Regional Water Quality Control Boards were established under the porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by waste discharge requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act. In compliance with Section 401 of the Clean Water Act, the State Water Resources

Control Board (for projects that span more than one Water Board region) and Regional Water Quality Control Boards also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request.

Affected Environment

This section is summarized from the *NES* (September 2025) and *Aquatic Resource Delineation Report* (January 2025).

Wetlands and waters in the BSA include approximately 0.513 acres of aquatic resources delineated within the BSA. The types of aquatic resources include CCC Wetlands (CCCW), waters of the United States (WUS), other waters of the United States (OWUS), and culverted waters of the State (CWOS). Table 2-9 shows a breakdown of the types and acreages of aquatic resources within the BSA. Figure 2-10 shows the locations of aquatic resources within the BSA.

Table 2-9. Aquatic Resources in the BSA

Feature Type	Delineated Area (acres)
CCCW-1 Herbaceous Wetland	0.012
CCCW-2 Herbaceous Wetland	<0.001
CCCW-3 Herbaceous Wetland	0.013
CCCW-4 Herbaceous Wetland	0.005
Subtotal CCCW Single Parameter Wetland	**0.031**
WUS-1 Seasonal Wetland	0.001
WUS-2 Perennial Freshwater Wetland	0.087
WUS-3 Perennial Freshwater Wetland	0.017
WUS-4 Seasonal Wetland	0.003
Subtotal WUS	**0.108**
OWUS-1 Tidal Open Water (Pacific Ocean)	0.043
OWUS-2 Tidal Open Water (Pacific Ocean)	0.025
OWUS-3 Tidal Open Water (Pacific Ocean)	0.102
OWUS-4 Tidal Open Water (Pacific Ocean)	0.009
Subtotal OWUS	**0.179**
WWOS-1 Isolated Seasonal Emergent Wetland	0.123
WWOS-2 Isolated Seasonal Emergent Wetland	0.064
Subtotal WWOS	**0.187**
CWOS-01	0.003
CWOS-01	0.001
CWOS-01	0.004
Subtotal CWOS	**0.008**
Total Wetland, Other Waters, and CWOS	**0.513**

Figure 2-10. Wetlands and Waters (sheet 1 of 3)

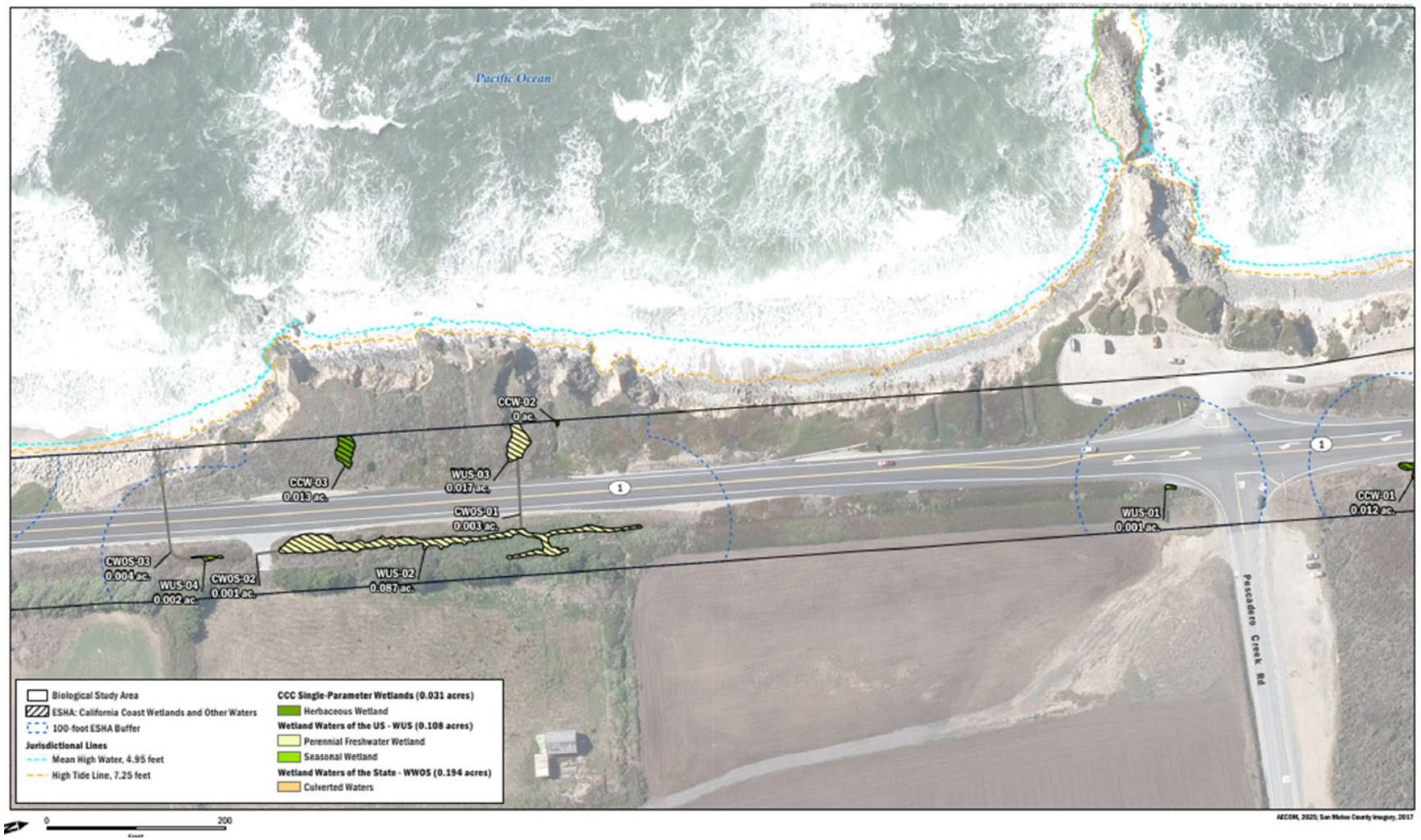


Figure 2-10 (Continued). Wetlands and Waters (sheet 2 of 3

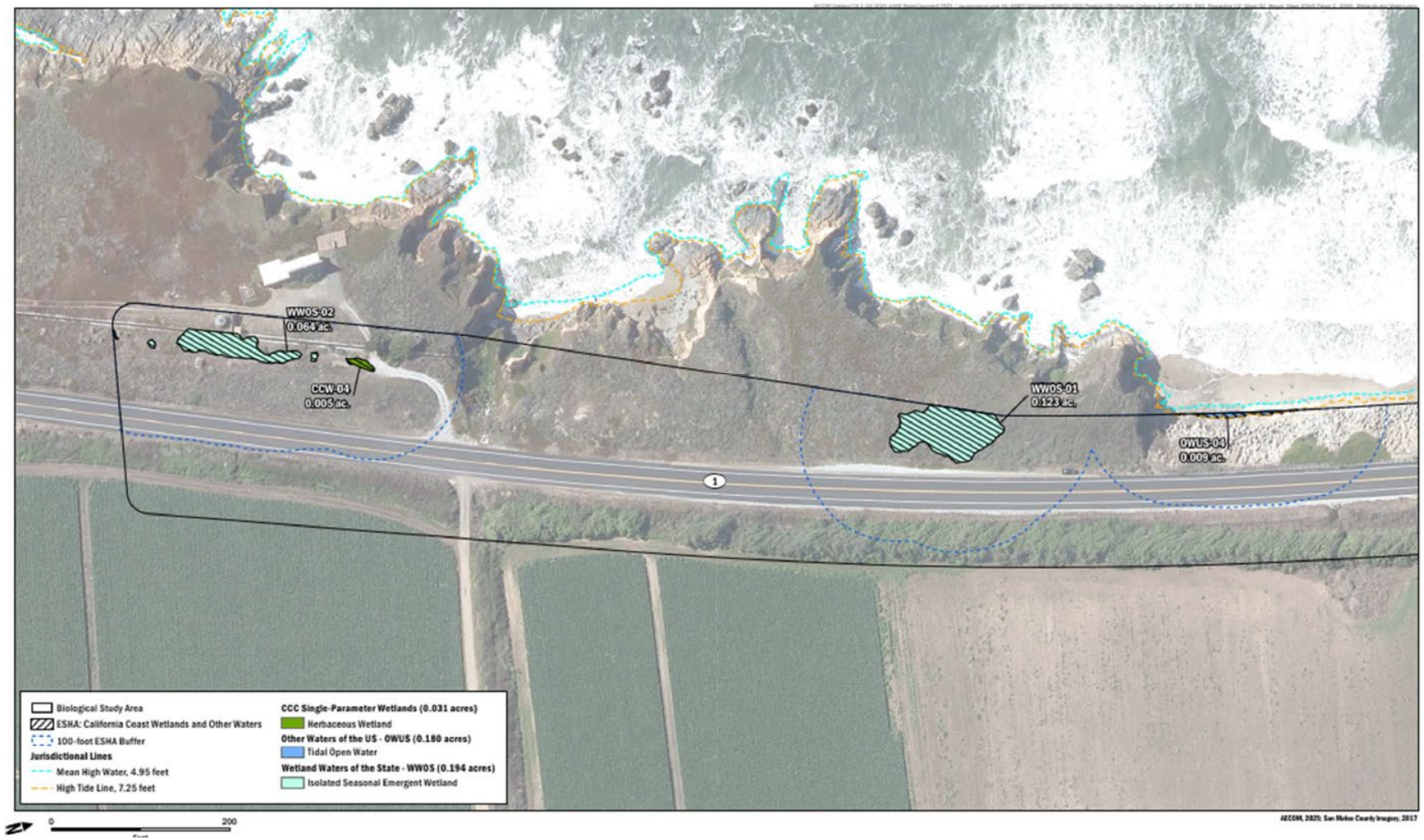


Figure 2-10 (Continued). Wetlands and Waters (sheet 3 of 3)

Environmental Consequences

No Build Alternative

The No Build Alternative would not affect wetlands and other waters in the project area.

Build Alternative

Based on the design and location of the proposed project, construction activities would have the potential to affect wetlands and water bodies within the BSA. Approximately 0.09 acres of jurisdictional wetland waters located in the existing concrete lined drainage ditch will be permanently impacted by the relocation of the new unlined drainage ditch; after relocation, there are no net permanent impacts to wetlands anticipated. Table 2-10 shows the anticipated impacts to jurisdictional aquatic resources and features within the BSA.

Table 2-10. Potential Impacts to Aquatic Resources

Feature Type	Federal and State Agencies with Jurisdiction	Potential Applicable State and Federal Laws	Permanent Impact (acres)	Temporary Impact (acres)
WUS	USACE, RWQCB, CCC	CWA Sections 404 and 401; CCCA	0.090	0.000
WWOS	RWQCB, CCC	CWA Section 401 CCCA	0.090	0.000
OWUS Tidal	USACE, RWQCB, CCC	CWA Sections 404 and 401; CCCA	0.000	0.000
CWOS	RWQCB	CWA Section 401	0.008	0.000
CCC Jurisdictional Wetland	CCC	CCCA	0.090	0.000

Notes:
1. Acres are rounded to the nearest thousandth of an acre.
CCCA = California Coastal Commission Act
CCC = California Coastal Commission
CWA = Clean Water Act
CWOS = culverted waters of the State
OWUS = other waters of the U.S.
RWQCB = Regional Water Quality Control Board
USACE = United States Army Corps of Engineers
WWOS = wetland waters of the State
WUS = waters of the U.S.

Avoidance, Minimization, and/or Mitigation Measures

AMM-BIO-1: Wetlands and Waters Construction Work Windows. Work in wetlands, waters, and riparian habitat would be limited to June 15 through October 15, to avoid or minimize impacts on waters of the U.S., WOS, riparian habitat, and special-status species habitat.

MM-BIO-1: Unlined Wetland Drainage Ditch. Approximately 1.68 acres of unlined drainage ditch would be established to restore coastal wetlands and waters onsite, as well as upland dispersal habitat for CRLF, SFGS, and NWPT to at least a 1:1 ratio. Graded aquatic features, liner stock planting and hydroseeding would restore the acreage of these resources to meet preconstruction conditions within a year of impact. The aquatic non-breeding habitat for CRLF, SFGS, and NWPT would be restored by reestablishing the wetlands, waters, and other ESHAs that provide aquatic conditions.

2.4.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service has regulatory responsibility for the protection of federally listed special-status plant species. “Special status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act.

At the state level, the California Department of Fish and Wildlife has regulatory responsibility for special-status plant species protected by the California Endangered Species Act.

Please see the Threatened and Endangered Species section in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including U.S. Fish and Wildlife Service candidate species, California Department of Fish and Wildlife species of special concern, and California Native Plant Society rare plants.

Affected Environment

The section is summarized from the NES (September 2025) prepared for the proposed project. The plants discussed in this section were either observed within the BSA or would have a moderate to high potential to occur within the BSA.

Rose leptosiphon (*Leptosiphon rosaceus*) and marsh sandwort (*Arenaria paludicola*) are plants that are native to California with a California Rare Plant Rank of 1B.1, meaning that they are considered rare, threatened, or endangered in California. These species range from San Mateo County in the north to Sonoma County along the

coastline. Rose leptosiphon can be found in open, grassy slopes and coastal bluffs from an elevation of approximately 65 to 80 feet, and it blooms from April through July (Jepson Flora 2024). Marsh sandwort is known to occur in marshes, swamps and areas that are wet year-round, in sandy soils from an elevation of approximately 10 to 600 feet.

According to California Natural Diversity Database (CNDDB) and CNPS database queries, CNDDB records of these species exist within 5 miles of the BSA (CDFW 2024a); however, they are considered possibly extirpated populations, with rose leptosiphon last recorded in 1943. These species were not found in the portion of the BSA that was included in the special-status plant species surveys.

Environmental Consequences

No Build and Build Alternative

No impacts are anticipated as no special-status plant species were observed during both general reconnaissance and rare plant surveys.

Avoidance, Minimization, and/or Mitigation Measures

AMM-BIO-2: Rare Plant Survey. Caltrans will complete rare plant surveys in portions of the BSA not included in the surveys already conducted to determine the presence or absence of special-status plant species in un-surveyed areas. If construction occurs more than three years from the date that previous surveys were completed (June 2023), the entire BSA will be included in the surveys. To ensure that surveys are conducted at an appropriate time to identify all the target species, as many as three survey replicates will be performed. The survey replicates will be timed based on target species blooming periods and rainfall levels, but will be targeted to occur in March, late April/May, and June. All plants will be identified to a level needed to verify protected status. Any special-status plants discovered in the field will be mapped and included as ESAs in the final plans and specifications. Caltrans will consult with the appropriate agency with jurisdiction and obtain the necessary permits or authorizations if unavoidable take of a listed plant species incidental to the proposed work will occur.

AMM-BIO-3: Preconstruction Plant Survey. A project biologist with appropriate botany experience will perform a site survey within the BSA before start of work, at the location where construction disturbance may occur. Special-status plants will be flagged and avoided where possible. Caltrans will coordinate with the appropriate regulatory agencies with jurisdiction before the start of construction if incidental take of a listed plant species is unavoidable and will obtain any necessary permits or authorizations for potential direct impacts. Caltrans will adhere to the requirements of all permits and authorizations issued for the proposed project.

AMM-BIO-4: Tree Survey. During the PS&E project phase, Caltrans will conduct an inventory of trees within the project footprint and will determine whether protected trees will be removed or damaged during construction.

2.4.4 Animal Species

Regulatory Setting

Federal laws and regulations relevant to wildlife include the following:

- NEPA
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

The U.S. Fish and Wildlife Service and NOAA Fisheries are responsible for implementing these laws.

State laws and regulations relevant to wildlife include the following:

- CEQA
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

The California Department of Fish and Wildlife are responsible for implementing these laws.

This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the Federal Endangered Species Act or the California Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section. All other special-status animal species are discussed here, including U.S. Fish and Wildlife Service or NOAA Fisheries candidate species and California Department of Fish and Wildlife fully protected species and species of special concern.

Affected Environment

The information in this section is summarized from the NES (September 2025) prepared for the proposed project.

The literature and database review included 17 special-status wildlife species that were evaluated for their potential to occur within the BSA. Of these, 12 wildlife species were eliminated from further consideration because of the absence of suitable habitat, the location of the BSA is outside the species' known range, or the lack of recent (e.g., within 50 years) documented occurrences in the general vicinity of the BSA.

Saltmarsh Common Yellowthroat and other Migratory and Non-Game Birds: The majority of the habitat within the BSA is of marginal quality for nesting birds due to continual human disturbance along SR 1, including noise from high traffic volumes, presence of park visitors, and agricultural fields. Existing data and recent observation

indicate that saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*) is present within 5 miles of the BSA.

Although avian surveys have not been conducted specifically for the proposed project, during site visits, no yellowthroat adults were observed in suitable tidal marsh and breeding habitat (low-lying and dense vegetation). Other potential herbaceous and tree-nesting habitats were also observed to be poor quality for a variety of other MBTA-protected species.

Environmental Consequences

No Build Alternative

There would be no impact to special-status species under the No Build Alternative.

Build Alternative

Saltmarsh Common Yellowthroat and other Migratory and Non-Game Birds: The project may disturb foraging, roosting, or nesting habitat. This potential impact would be limited to the 0.09 acres of wetland compared to the extensive nesting and foraging habitat adjacent to the BSA. Through the implementation of the proposed AMMs, potential for take as defined under the MBTA will be further minimized. Therefore, the project would not affect existing populations of migratory and special status bird species within the BSA or the area surrounding the BSA.

Avoidance, Minimization, and/or Mitigation Measures

AMM-BIO-5: Preconstruction Nesting Bird Surveys. Prior to construction during bird nesting season (February 1 to September 30), preconstruction surveys for nesting birds will be conducted by a Caltrans-approved Biologist no more than 72 hours prior to the start of any construction activities, including staging, installation of BMPs, and vegetation removal. If work at surveyed locations does not begin within 72 hours, subsequent surveys must be conducted.

AMM-BIO-6: Nesting Bird Buffer. If an active nest is discovered, a Caltrans-approved Biologist will establish an appropriately sized no-work protective buffer. The buffer size will be appropriate to the species, nest location, topography, cover, the individual's sensitivity to disturbance, and the intensity/type of construction activities.

2.4.5 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies are required to consult with the U.S. Fish and Wildlife Service and NOAA Fisheries to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat

is defined as geographic locations critical to the existence of a threatened or endangered species.

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States.

Affected Environment

Northwestern Pond Turtle (NWPT): The NWPT is a State-listed species of special concern and a federally proposed species for listing as threatened. This species occurs in both perennial and intermittent waters, including marshes, streams, rivers, ponds, and lakes; its range extends from Washington State southward to Mexico (USFWS 1993).

No focused surveys have been completed within the BSA for listed species or CDFW species of special concern. The desktop review found CNDDB occurrences of NWPT approximately 3 miles north of the BSA (CDFW 2024). While there is aquatic habitat near the BSA, NWPT is determined to have low potential to occur within the BSA.

NWPT aquatic non-breeding habitat is comprised of standing bodies of fresh water, including natural and manmade ponds, slow-moving streams or pools within streams, that may not hold water long enough for the species to complete its aquatic life cycle but which provide for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult NWPT. There is approximately 0.325 acre of suitable aquatic non-breeding habitat within the BSA.

California Red Legged Frog (CRLF): The CRLF is listed as threatened under the FESA (61 FR 25813, May 23, 1996) and designated as a species of special concern by CDFW. Although no protocol-level CRLF surveys were conducted for the proposed project, CRLF previously has been detected within the BSA. There are three CNDDB occurrences documented within the BSA, including a deceased CRLF found along SR 1 in 2016. Unidentified tadpoles, presumed to be CRLF, were also observed inside the existing concrete lined drainage ditch during the rare plant survey in April 2025.

Although occasional elevated salinity or brackish water and high flows sometimes may be limiting for CRLF reproduction, adults have been observed within the BSA, and other life stages also may be present sometimes. There is high potential for both non-breeding aquatic habitat and upland dispersal habitat to occur.

CRLF upland dispersal habitat may include riparian, grassland, or woodland vegetation. Suitable habitats include features that provide refuge for the species, such as dense riparian vegetation, active mammal burrows, or any other element providing shade, shelter, moisture, or cooler temperatures. There is approximately 13.175 acres of CRLF upland dispersal habitat within the BSA.

CRLF aquatic non-breeding habitat is comprised of standing bodies of fresh water, including natural and manmade ponds, slow-moving streams or pools within streams, that may not hold water long enough for the species to complete its aquatic life cycle but which provide for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult CRLF. There is approximately 0.325 acre of suitable aquatic non-breeding habitat within the BSA.

San Francisco Garter Snake (SFGS): The SFGS is listed as federally endangered in 1967 (32 FR 4001), and it is listed as State-endangered and fully protected. Although no protocol-level SFGS surveys were conducted for the proposed project, at least one CNDDB occurrence is within 5 miles of the BSA. Based on its habitat requirements, the presence of suitable habitat within the BSA, and known occurrences nearby, SFGS is assumed present within the BSA with moderate potential to occur.

The BSA provides potentially upland and aquatic habitat for SFGS adults and juveniles. Slow-moving water with backwater pools with intermittent emergent and overhanging vegetation and a likely presence of food sources, such as pacific chorus frog (*Pseudacris regilla*) and CRLF, are present at various locations in the BSA. Dispersal and habitat connectivity within the BSA is limited by SR 1.

SFGS upland dispersal habitat may include riparian, grassland, or woodland vegetation. Suitable habitats include features that provide refuge for the species, such as dense riparian vegetation, active mammal burrows, or any other element providing shade, shelter, moisture, or cooler temperatures. There is approximately 13.175 acres of SFGS upland dispersal habitat within the BSA. This 13.175 acres of upland dispersal habitat is shared with the CRLF.

SFGS aquatic non-breeding habitat is comprised of standing bodies of fresh water, including natural and manmade ponds, slow-moving streams or pools within streams, that may not hold water long enough for the species to complete its aquatic life cycle but which provide for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult SFGS. There is approximately 0.325 acres of suitable aquatic non-breeding habitat within the BSA for both the SFGS and CRLF.

California Least Tern and Western Snowy Plover: The California least tern is listed as federally endangered by the USFWS and the western snowy plover is listed as federally endangered under the Endangered Species Act. At least one CNDDB occurrence of western snowy plover is within 5 miles of the BSA. Based on the scope of the project and the distance of both nesting beach area and riparian or redwoods foraging sites from SR 1, no presence is assumed within the BSA. Additionally, no occurrences were observed during both general reconnaissance and rare plant surveys.

Both western snowy plover and California least tern are presumed to have low potential to occur within the BSA.

There is no suitable habitat present for these species within the project footprint.

Environmental Consequences

No Build Alternative

The project would have no impact.

Build Alternative

Table 2-7 provides a breakdown of impacts to special-status species habitat by ESHA type. As noted previously, the acreages of ESHA types overlap, and those areas are not quantified twice.

Northwestern Pond Turtle: Approximately 0.09 acres of NWPT non-breeding aquatic habitat will be permanently impacted.

Construction activities have low potential to impact NWPT directly through crushing or indirectly through temporary removal of suitable habitat. Construction activities with potential to impact NWPT include offroad travel, staging materials, and earthwork such as grading, excavating, or grubbing of vegetation. Temporary impacts during construction would include human presence, disturbance from construction equipment (dust and noise), impacts on water quality, and temporary impacts on use of or movement through some areas because of construction fencing. Trees or vegetation affected by the proposed project are not expected to have much effect on use of the BSA by NWPT, and the vegetation would be restored after construction. If NWPT occurs at the project site during construction, the potential would exist for injury or mortality caused by work activities. Implementation of AMMs would substantially reduce risk to individuals within the BSA during construction.

California Red-Legged Frog: The project may affect and is likely to adversely affect CRLF. The project will permanently impact 3.029 acres of CRLF upland dispersal habitat. The project will also permanently impact 0.09 acres of CRFL non-breeding aquatic habitat.

The proposed project would have the potential to adversely affect CRLF individuals that occur at the project site during construction, and construction may result in injury, mortality, or harassment. Project effects on CRLF would include ground disturbance from vegetation removal. CRLF also may be affected by construction-related dust, increases in noise, human disturbance, and impacts on water quality during construction. Effects may occur wherever temporary construction impacts occur, including areas used for vehicle/equipment staging and access. Limiting work in aquatic habitats to the period from April 15 to October 15, when CRLF generally is active, would reduce the potential for CRLF to be affected by project activities.

San Francisco Garter Snake: The project may affect and is likely to adversely affect the SFGS. The project will permanently impact 3.029 acres of SFGS upland dispersal habitat. The project will also permanently impact 0.09 acres of SFGS non-breeding aquatic habitat.

Like CRLF, the proposed project would have the potential to adversely affect SFGS individuals that occur at the project site during construction, which may result in injury, mortality, or harassment. Temporary and permanent disturbance to potentially suitable habitat would be the same as described for CRLF. Project effects on this species would include ground disturbance from vegetation removal and the potential for construction related dust, increases in noise, human presence, and impacts on water quality during construction, especially within aquatic areas. Effects may occur wherever temporary construction impacts occur, including areas where vehicle/equipment staging, and access take place.

California Least Tern and Western Snowy Plover: The project may affect but is not likely to adversely affect the California least tern and western snowy plover.

The proposed project would have the potential to affect western snowy plover and California least tern individuals that fly over the project site during construction, which may result in disturbance or harassment. Project effects on this species would include ground disturbance from vegetation removal and the potential for construction related dust, increases in noise, human presence, and impacts on water quality during construction, especially within aquatic areas. Effects may occur wherever temporary construction impacts occur, including areas where vehicle/equipment staging, and access take place. Impacts on nesting or foraging ground is anticipated to be minimal due to their distance from SR 1.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans would implement the Project Features outlined in Section 1.5 to reduce potential impacts to special-status species. The following additional species-specific measures would be implemented to further avoid and minimize effects on special-status species.

MM-BIO-1: Unlined Wetland Drainage Ditch. Approximately 1.68 acres of unlined drainage ditch would be established to restore coastal wetlands and waters onsite, as well as upland dispersal habitat for CRLF, SFGS, and NWPT to at least a 1:1 ratio. Graded aquatic features, liner stock planting and hydroseeding would restore the acreage of these resources to meet preconstruction conditions within a year of impact. The aquatic non-breeding habitat for CRLF, SFGS, and NWPT would be restored by reestablishing the wetlands, waters, and other ESHAs that provide aquatic conditions.

MM-BIO-2: Coastal Bluff Mitigation. Upland dispersal habitat for CRLF and SFGS would be restored to at least a 1:1 ratio onsite by removing both the existing roadway, concrete lined drainage ditch, and restoring the landscape with appropriate coastal bluff terrace plantings. Approximately 2.07 acres of existing pavement would be removed to restore upland habitat onsite fully offsetting the 1.64 acres of realigned roadway.

Restoration of the old roadway hardscape area would be performed at the end of the project once the new roadway is installed and operational.

MM-BIO-4: Amphibian Wildlife Crossing Mitigation. A suitable existing cross culvert would be upsized to at least 36 inches to function as an amphibian wildlife crossing. The upgraded culvert would increase the value and functionality of the habitat onsite by connecting proposed restoration areas on both sides of the roadway and reducing roadway hazards to special status species individuals. The specific location would be identified during the design phase in consultation with the appropriate permitting agencies.

AMM-BIO-1: Wetlands and Waters Construction Work Windows. Work in wetlands, waters, and riparian habitat would be limited to June 15 through October 15, to avoid or minimize impacts on waters of the U.S., WOS, riparian habitat, and special-status species habitat.

AMM-BIO-7: Preconstruction Surveys. Preconstruction surveys will be conducted at all proposed staging, work, and dewatering areas by a qualified biologist immediately before the start of construction in each area each day. The surveys will involve a visual inspection of the entire immediate work area. If special-status species are detected during preconstruction surveys, a qualified biologist either will stop work and the species will be allowed to move outside the work area on its own, or (with approval from CDFW and except for SFGS) the species will be moved to the nearest suitable habitat outside the construction area (and wildlife exclusion fencing) that will not be disturbed. In addition, if resources (e.g., burrows for SFGS, CRLF, or bird nests) are found within the work areas, an appropriate exclusion buffer will be setup that will prohibit any work within it until the species is no longer in the area.

AMM-BIO-8: Wildlife Exclusion Fencing. WEF will be installed along the perimeter of any staging areas within 300 feet of potentially suitable aquatic habitats. Potential nearby aquatic features include Pescadero Marsh to the north and seasonal wetlands throughout the project site. The fencing will remain throughout the duration of project construction and will serve to exclude special-status species from any staging areas where materials storage may encourage migrating individuals to seek cover. The WEF will be maintained by the contractor throughout the duration of construction in the area. The WEF will be trenched into the soil at least 4 inches deep, with the soil compacted against both sides of the fence for its entire length to prevent special-status species from passing under the fence. The barriers will be inspected by the qualified biologist at least twice weekly on nonconsecutive days throughout the duration of all construction activities in the area. Barriers will be installed by the contractor, with turnarounds at any access openings needed in the fencing to redirect reptiles and other animals away from openings.

AMM-BIO-9: Entrapment Avoidance. To prevent inadvertent entrapment of special-status species during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered with plywood or similar materials at the end of each workday, or the holes or trenches will contain one or more escape ramps, constructed

of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If a trapped special-status species is discovered at any time, the biologist will provide passive opportunities for safe egress out of the work area (e.g., providing an escape ramp that the NWPT can use to exit a trench). Otherwise, a qualified biologist, with approval from CDFW, will move the special-status species to the nearest suitable habitat outside the construction area that will not be disturbed. An Incidental Take Permit will be obtained, which will also provide authorization for the qualified biologist to relocate special-status species if they become entrapped.

AMM-BIO-10: Proper Use of Erosion Control Devices. To prevent special-status species from becoming entangled, trapped, or injured, erosion control materials that use synthetic monofilament netting will not be used within the BSA. This will include products that use photodegradable or biodegradable synthetic netting, which can take several months to decompose. Acceptable materials will include tackified hydroseeding compounds and natural fibers, such as jute or twine with a wide-aperture mesh.

AMM-BIO-11: Daily Surveys. Daily surveys will be conducted throughout the work areas of the BSA for the duration of construction activities. The biological monitor, or an approved construction inspector, will inspect staging and work areas for the presence of dispersing special-status species.

AMM-BIO-12: Biological Monitoring. A USFWS-approved biological monitor will be present during all construction activities that potentially may result in take of special-status species that require biomonitoring. Following the initial mobilization of the project site, the monitor will continue to be present on a daily basis, or Caltrans will transfer the compliance responsibility to a USFWS-approved construction inspector. If a USFWS-approved construction inspector assumes this role, the USFWS-approved biologist will continue to perform the following:

- Weekly compliance inspections
- Site inspections before a forecasted rain event
- Clearance inspections for CRLF and other special-status species after a rain event
- Clearance surveys after an extended suspension of work or before new ground disturbance.

AMM-BIO-13: Protocol for Species Observation. If a special-status species individual is detected within the project footprint or surrounding BSA, all work will cease immediately, and all onsite personnel will be notified of the location. At no time will construction work occur within 50 feet of the special-status species without a USFWS-approved biological monitor present. If relocation is permitted, the special-status species will be relocated to suitable habitat outside the project footprint, following an approved relocation plan.

2.4.6 Invasive Species

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the U.S. The order 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 whose introduction does or is likely to cause economic or environmental harm or harm to human health.” FHWA guidance issued August 10, 1999, directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the NEPA analysis for a proposed project.

Affected Environment

The section is summarized from the NES (September 2025) prepared for the proposed project.

Invasive species are categorized based on their impact on ecological and physical processes. The rating system is as follows:

High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate: These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, although establishment generally depends on ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive, but their ecological impacts are minor on a statewide level or not enough information exists to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Their ecological amplitude and distribution generally are limited, but these species may be locally persistent and problematic.

Alert: An Alert is listed on species with High or Moderate impacts that have limited distribution in California but may have the potential to spread farther.

Watch: These species have been assessed as posing a high risk of becoming invasive in California in the future.

The rare plant survey that was conducted identified the following invasive plant species within the BSA and include their ratings:

- highway iceplant (*Carpobrotus edulis*); High
- wild mustard (*Sinapis arvensis*); Limited
- wild radish (*Raphanus sativus*); Limited
- fennel (*Foeniculum vulgare*); Moderate
- Bermuda buttercup (*Oxalis pes-caprae)*; Moderate
- sheep sorrel (*Rumex acetosella*); Moderate
- calla lily (*Zantedeschia aethiopica)*; Limited
- cutleaf geranium (*Geranium dissectum*); Limited
- wild oats *(Avena fatuaa*); Moderate
- English plantain (*Plantago lanceolata*); Limited

Environmental Consequences

No Build Alternative

The No Build Alternative would not introduce invasive species into the project area.

Build Alternative

The project is not anticipated to increase distribution or introduce invasive species. However, construction activities, such as soil movement and equipment movement, could create favorable conditions for the establishment of invasive species if not properly managed.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will comply with EO 13112 – Invasive Species (64 FR 6183) through the implementation of the following measure.

AMM-BIO-14: Invasive Species. To reduce the spread of invasive, non-native plant and aquatic species and minimize the potential decrease of palatable vegetation for wildlife species or impact native aquatic ecosystems, Caltrans would comply with EO 13112. If noxious weeds are disturbed or removed during construction-related activities, the contractor would be required to contain the plant material associated with these noxious weeds and dispose of them in a manner that would not promote the spread of the species. This includes decontamination of equipment, materials, vehicles, and watercrafts. The contractor would be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance would be replanted with fast growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the project footprint would be covered to the extent practicable with heavy black plastic solarization material until the end of the project. If work occurs in sensitive and/or aquatic habitat, vehicles and equipment would be thoroughly cleaned before arriving on the project site to prevent the spread of noxious weeds and invasive species from other locations. Temporarily disturbed areas would be restored to the maximum extent

practicable. Exposed slopes and bare ground would be reseeded with native vegetation or other methods to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs and/or disturbance of jurisdictional riparian vegetation, native species would be replanted, based on the local species composition.

Chapter 3 CEQA Evaluation

3.1 DETERMINING SIGNIFICANCE UNDER CEQA

The proposed project is a joint project by Caltrans and the FHWA and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans. Caltrans is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an Environmental Impact Statement, or a lower level of documentation, will be required. NEPA requires that an Environmental Impact Statement be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an Environmental Impact Statement, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Each and every significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an Environmental Impact Report. See the SER, Volume 1, Chapter 36, "Environmental Impact Reports" for more information. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 CLIMATE CHANGE

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to GHG emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over

millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 is the most abundant GHG; while it is a naturally occurring and necessary component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO_2.

The impacts of climate change are already being observed in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, "mitigation" involves actions to reduce GHG emissions to lessen adverse impacts that are likely to occur. "Adaptation" is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

3.2.1 Regulatory Setting

For a full list of laws, regulations, and guidance related to climate change (GHGs and adaptation), please refer to Caltrans' Standard Environmental Reference (SER), Chapter 16, Climate Change.

Federal

To date, no nationwide numeric mobile-source GHG reduction targets have been established; however, federal agencies are mandated to consider the effects of climate change in their environmental reviews.

NEPA (42 USC Part 4332) is the basic national charter for protection of the environment which establishes policy, sets goals, and provides direction for carrying out the policy. NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project. In May 2024, the White House Council on Environmental Quality (CEQ) issued the National Environmental Policy Act Implementing Regulations Revisions Phase 2 (89 FR 35442). The CEQ regulations do not establish numeric thresholds of significance, but mandate that federal agencies consider the effects of climate change in their environmental reviews, including direct, indirect, and cumulative impacts. The CEQ regulations further require

that agencies quantify GHG emissions, where feasible, from the proposed action and alternatives. The regulations also direct agencies to identify reasonable alternatives that reduce climate change-related effects.

FHWA recognizes the threats that extreme weather, sea level rise, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2022). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values— "the triple bottom line of sustainability" (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Early efforts by the federal government to improve fuel economy and energy efficiency to address climate change and its associated effects include The Energy Policy and Conservation Act of 1975 (42 USC Section 6201); and Corporate Average Fuel Economy (CAFE) Standards. The U.S. Department of Transportation's National Highway Traffic and Safety Administration sets and enforces CAFE standards for on-road motor vehicles sold in the United States. The U.S. EPA calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards for vehicles under the Clean Air Act. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation's energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014). These standards are periodically updated and published through the federal rulemaking process.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and EOs.

In 2005, EO S-3-05 initially set a goal to reduce California's GHG emissions to 80 percent below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies. The California Air Resources Board (ARB) was directed to create a climate change scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Ongoing GHG emissions reduction was also mandated in Health and Safety Code (H&SC) Section 38551(b). In 2022, the California Climate Crisis Act was passed, establishing state policy to reduce statewide human-caused GHG emissions by 85 percent below 1990 levels, achieve net zero GHG emissions by 2045, and achieve and maintain negative emissions thereafter.

Beyond GHG reduction, the State maintains a climate adaptation strategy to address the full range of climate change stressors, and passed legislation requiring state

agencies to consider protection and management of natural and working lands as an important strategy in meeting the state's GHG reduction goals.

3.2.2 Environmental Setting

The proposed project is on SR 1 from PM 13.1 to PM 13.9 near Pescadero State Beach, between Reservoir Road and Pescadero Creek Road in San Mateo County, California. The project is along the coastal side of the San Francisco Bay Estuarine Biogeographic Region of Northern California. The landscape is characterized by coastal bluffs, beaches and coastal rolling hills. The corridor is sporadically dotted with agricultural elements but is primarily undeveloped natural areas. Part of the Santa Cruz Mountain coastal range, the corridor follows the beaches and coastal bluffs while transversing a mix of low growing coastal strand and open grass lands with pockets of coastal forests, primarily in the drainages. The project limits are bordered on the coastal side by Pescadero State Beach to the west. The project limits are bordered on the east by the Pescadero River valley transitioning to private properties of agricultural land.

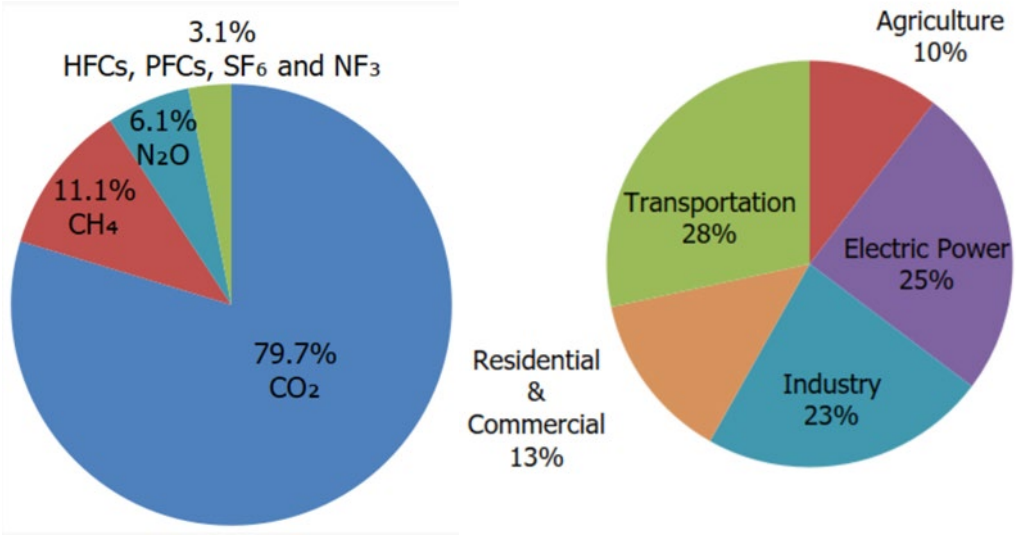
GHG Inventories

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

National GHG Inventory

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. Total national GHG emissions from all sectors in 2022 were 5,489.0 million metric tons, factoring in deductions for carbon sequestration in the land sector. (Land Use, Land Use Change, and Forestry provide a carbon sink equivalent to 15 percent of total U.S. emissions in 2022 [U.S. EPA 2024a].) While total GHG emissions in 2022 were 17 percent below 2005 levels, they increased by 1 percent over 2021 levels. Of these, 80 percent were CO_2, 11 percent were CH_4, and 6 percent were N_2O; the balance consisted of fluorinated gases. From 1990 to 2022, CO_2 emissions decreased by only 2 percent (U.S. EPA 2024a).

The transportation sector's share of total GHG emissions remained at 28 percent in 2022 and continues to be the largest contributing sector (Figure 3-1). Transportation activities accounted for 37 percent of U.S. CO_2 emissions from fossil fuel combustion in 2022. This is a decrease of 0.5 percent from 2021 (U.S. EPA 2024a, 2024b).



(Source: U.S. EPA 2024b)

Figure 3-1. U.S. 2022 Greenhouse Gas Emissions

State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. Overall statewide GHG emissions declined from 2000 to 2021 despite growth in population and state economic output (Figure 3-2). Transportation emissions remain the largest contributor to GHG emissions in the state (Figure 3-3) (ARB 2023).

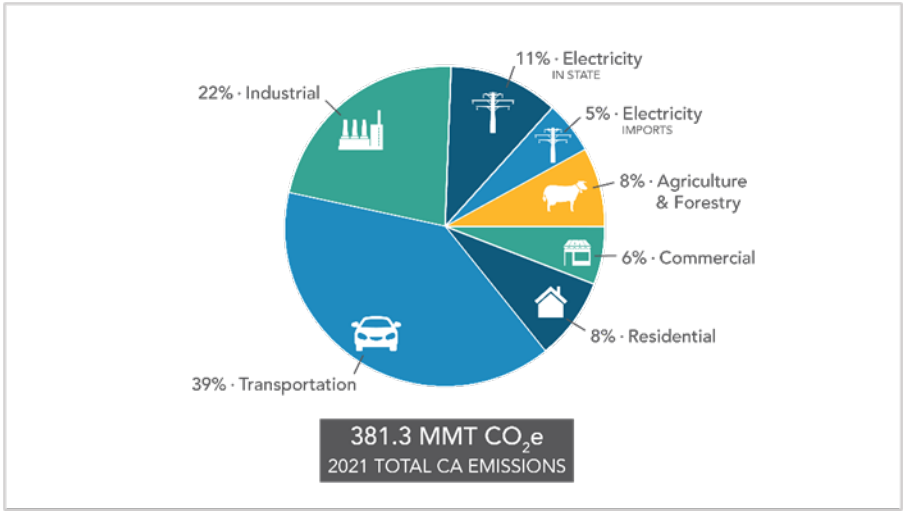


Figure 3-2. California 2021 Greenhouse Gas Emissions by Economic Sector

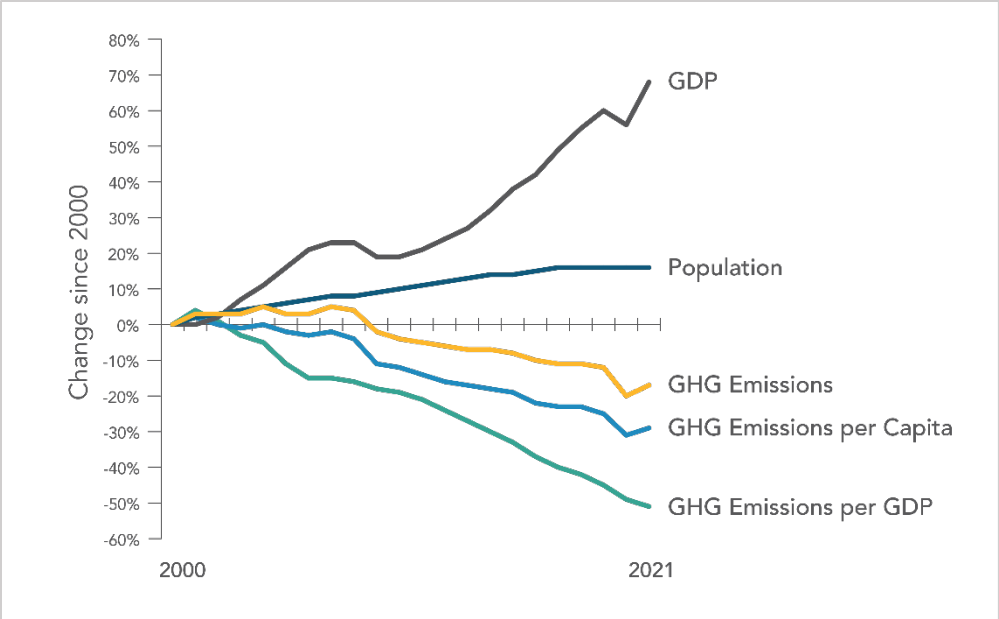


Figure 3-3. Change in California GDP, Population, and GHG Emissions since 2000

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions. ARB adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The *2022 Scoping Plan for Achieving Carbon Neutrality,* adopted September 2022, assesses progress toward the statutory 2030 reduction goal and defines a path to reduce human-caused emissions to 85 percent below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (ARB 2022a).

Regional Plans

As required by *The Sustainable Communities and Climate Protection Act of 2008*, ARB sets regional GHG reduction targets for California's 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the Metropolitan Transportation Commission's *Plan Bay Area 2050*, the RTP/SCS for MTC/ABAG. The regional reduction target for the Bay Area is 19 percent by 2035 (ARB 2021).

3.2.3 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH_4 and N_2O. A small amount of HFC emissions related to refrigeration is also included in the transportation sector. (GHGs differ in how much heat each traps in the atmosphere, called global warming potential, or GWP. CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called "carbon dioxide equivalent," or CO_2e. The global warming potential of CO_2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO_2.)

The CEQA Guidelines generally address GHG emissions as a cumulative impact due to the global nature of climate change (PRC 21083[b][2]). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation v. San Diego Assn. of Governments [2017] 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The purpose of the proposed project is repair of damage caused by natural disasters and it will not increase the vehicle capacity of the roadway. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on SR 1, no increase in vehicle mile travelled (VMT) would occur. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

Construction Emissions

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will 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. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered "temporary" in the same way as criteria pollutants that subside after construction is completed.

Use of long-life pavement, improved traffic management plans, and changes in materials can also help offset GHG emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities. Based on project information available for environmental studies, the construction-related GHG emissions were calculated using the Caltrans Construction Emissions Tool (CAL-CET), CAL-CET2021 v1.0.3, developed by Caltrans. The estimated total amount of CO2 produced would be 215 tons. Table 3-1 summarizes the construction-related emissions, including the total CO2e emissions.

Table 3-1. Construction-Related Emissions

	Parameters				Project Total
	CO2 (tons)	CH4 (tons)	N2O (tons)	HFC (tons)	*CO2E (metric tons)
Total Emissions	215	0.005	0.011	0.005	220

*Gases are converted to CO2E by multiplying by their global warming potential (GWP). Specifically, GWP is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO2).

Construction GHG emissions would result from material processing and transportation, onsite construction equipment, and traffic delays due to construction. These emissions will 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. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered “temporary” in the same way as criteria pollutants that subside after construction is completed.

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

CEQA Conclusion

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

The project has potential to generate GHG emissions, either directly or indirectly. The impact would be less than significant.

The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

3.2.4 Greenhouse Gas Reduction Strategies

Statewide Efforts

In response to Assembly Bill 32, the Global Warming Solutions Act, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors to take California into a sustainable, cleaner, low-carbon future, while maintaining a robust economy (ARB 2022b).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of VMT. Reducing today's petroleum use in cars and trucks is a key state goal for reducing GHG emissions by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued EO N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released *Natural and Working Lands Climate Smart Strategy* (California Natural Resources Agency 2022).

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

Climate Action Plan for Transportation Infrastructure

The California Action Plan for Transportation Infrastructure (CAPTI) builds on EOs signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021).

California Transportation Plan

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021a).

Caltrans Strategic Plan

The *Caltrans 2024–2028 Strategic Plan* includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2024).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Other Director's policies promote energy efficiency, conservation, and climate change, and commit Caltrans to sustainability practices in all planning, maintenance, and operations. *Caltrans Greenhouse Gas Emissions and*

Mitigation Report (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions and current Caltrans procedures and activities that track and reduce GHG emissions. It identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Caltrans and State goals.

Project-Level GHG Reduction Strategies

The following measures will also be implemented in the project to reduce GHG emissions and potential climate change impacts from the project.

Implementation of Caltrans Standard Specifications, such as complying with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the Contract and the use of construction BMPs, would result in reducing GHG emissions from construction activities, including but not limited to:

1. Regular vehicle and equipment maintenance
2. Limit idling of vehicles and equipment on site
3. If practicable, recycle nonhazardous waste and excess material. If recycling is not practicable, dispose of material
4. Use solar-powered signal boards, if feasible.

In addition, with innovations such as longer pavement lives, improvement in traffic management and changes in materials, construction-related GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

3.2.5 Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Furthermore, the combined effects of transportation projects and climate stressors can exacerbate the impacts of both on vulnerable communities in a project area. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The *Fifth National Climate Assessment*, published in 2023, presents the most recent science and "analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; [It] analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years … to support informed decision-making across the United States." Building on previous assessments, it continues to advance "an inclusive, diverse, and sustained process for assessing and communicating scientific knowledge on the impacts, risks, and vulnerabilities associated with a changing global climate" (U.S. Global Change Research Program 2023).

The U.S. Department of Transportation recognizes the transportation sector's major contribution of GHGs that cause climate change and has made climate action one of the department's top priorities (U.S. DOT 2023). FHWA's policy is to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2022).

The National Oceanic and Atmospheric Administration provides sea level rise projections for all U.S. coastal waters to help communities and decision makers assess their risk from sea level rise. Updated projections through 2150 were released in 2022 in a report and online tool (NOAA 2022).

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment) (2018) provides information to help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The Fourth Assessment reported that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an up to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures; a two-thirds decline in water supply from snowpack resulting in water shortages; a 77 percent increase in average area burned by wildfire; and large-scale erosion of up to 67 percent of Southern California beaches due to sea level rise. These effects will have profound impacts on infrastructure, agriculture, energy demand, natural systems, communities, and public health (State of California 2018).

Sea level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

To help actors throughout the state address the findings of California's Fourth Climate Change Assessment, AB 2800's multidisciplinary Climate-Safe Infrastructure Working Group published *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. This report provides guidance on assessing risk in the face of inherent uncertainties still posed by the best available climate change science. It also examines how state agencies can use infrastructure planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018).

EO S-13-08, issued in 2008, directed state agencies to consider sea level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea level rise. It gave rise to the 2009 *California Climate Adaptation Strategy*, the Safeguarding California Plan, and a series of technical reports on statewide sea level rise projections and risks, including the *State of California Sea-Level Rise Guidance Update* in 2018. The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current *California Climate Adaptation Strategy* incorporates key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy*, *Wildfire and Forest Resilience Action Plan*, *Water Resilience Portfolio,* and the CAPTI (described above). Priorities in the 2023 *California Climate Adaptation Strategy* include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023).

EO B-30-15 recognizes that effects of climate change threaten California's infrastructure and requires state agencies to factor climate change into all planning and investment decisions. Under this EO, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies*, to encourage a uniform and systematic approach to building resilience.

SB 1 Coastal Resources: Sea Level Rise (Atkins 2021) established statewide goals to "anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the coastal zone." As the legislation directed, the Ocean Protection Council collaborated with 17 state planning and coastal management agencies to develop the *State Agency Sea-Level Rise Action Plan for California* in February 2022. This plan promotes coordinated actions by state agencies to enhance California's resilience to the impacts of sea level rise (California Ocean Protection Council 2022).

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

Caltrans Sustainability Programs

The Director's Office of Equity, Sustainability and Tribal Affairs supports implementation of sustainable practices at Caltrans. The *Sustainability Roadmap* is a periodic progress report and plan for meeting the Governor's sustainability goals related to EOs B-16-12, B-18-12, and B-30-15. The Roadmap includes designing new buildings for climate change resilience and zero-net energy, and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023).

Project Adaptation Analysis

The Caltrans Climate Change Vulnerability Assessment evaluates the potential for changes to future sea level rise, precipitation and flooding, wildfire risk, and temperature ranges. This section evaluates the potential for each of those future projections to affect the proposed project alternative, as well as identify any steps the project development team is taking to incorporate uncertainties from climate change into the project's design.

Sea Level Rise

This segment of SR 1 is highly exposed to coastal processes, including scour due to wave action during strong swell events, storm surge, and heavy rainfall that contributes to the ongoing bluff erosion. Over the years, this area has experienced repeated bluff failures and roadway distress, prompting multiple emergency CDPs to implement stabilization measures. These have included placement of RSP to maintain roadway safety and prevent additional loss of the bluff.

The two tools used for the analysis of sea level rise are the Caltrans District 4 Sea Level Rise Data Viewer and the Our Coast Our Future (OCOF) tool. Figure 3-4 shows our findings using the Sea Level Rise Data Viewer. This tool illustrates the sea level rise inundation by foot and uses the average sea level rise for San Francisco and the 7 foot Sea Level Rise Inundation to show where the sea level rise will be in year 2100. The proposed Left Edge of Travel way (LETW) is illustrated on the map, and it is shown that the sea level rise inundation is outside of the proposed realigned roadway of SR 1.

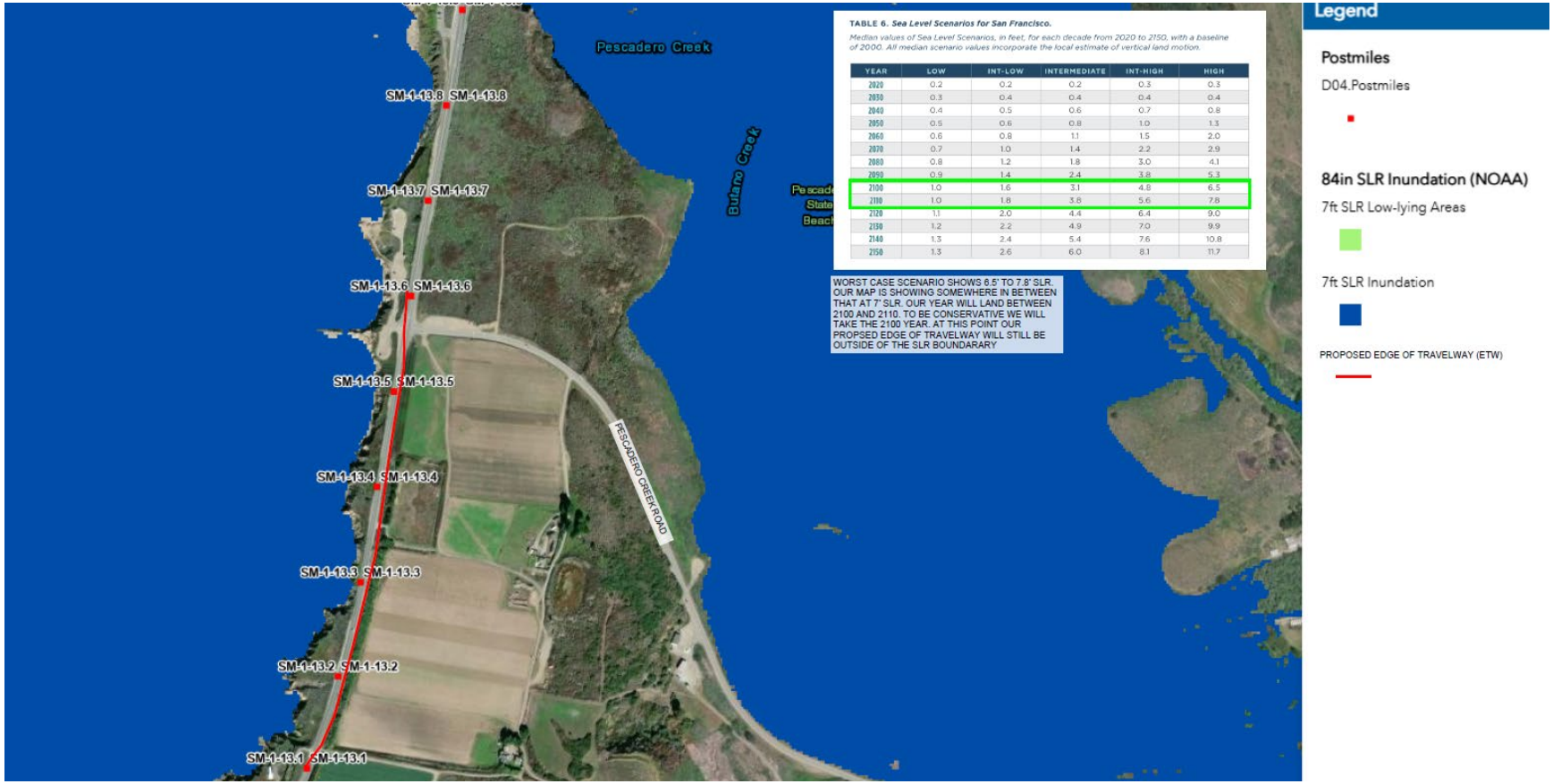


Figure 3-4. Caltrans District 4 Sea Level Rise Data Viewer

Figure 3-5 shows our finding using the OCOF tool used in the exhibit recently received from the California Coastal Commission. This tool illustrates cliff retreat in respect to sea level rise in feet and uses the average sea level rise for San Francisco and the 6.6-foot sea level rise, which shows where the cliff retreat will be in year 2100. The proposed LETW is illustrated on the map, and it is shown that the sea level rise inundation is outside of our proposed roadway. While the existing roadway is not currently subject to direct inundation from sea level rise, rising sea levels and increased storm intensity are accelerating coastal bluff erosion in this area. As bluff retreat continues, the buffer between the roadway and the cliff edge has narrowed significantly, increasing the risk of highway failure during future storm events.

The Build Alternative provides a near-term adaptation strategy that maintains the safety and function of SR 1 by relocating the highway inland, away from the actively eroding bluff. The new realignment has been designed to ensure the new roadway remains outside of the anticipated zone of bluff retreat for its design life. The Build Alternative supports natural coastal processes by reducing the need for additional RSP placement or hard structures along the bluff. By moving the highway inland, the project proactively addresses the same coastal hazards that have required repeated emergency responses over the years.

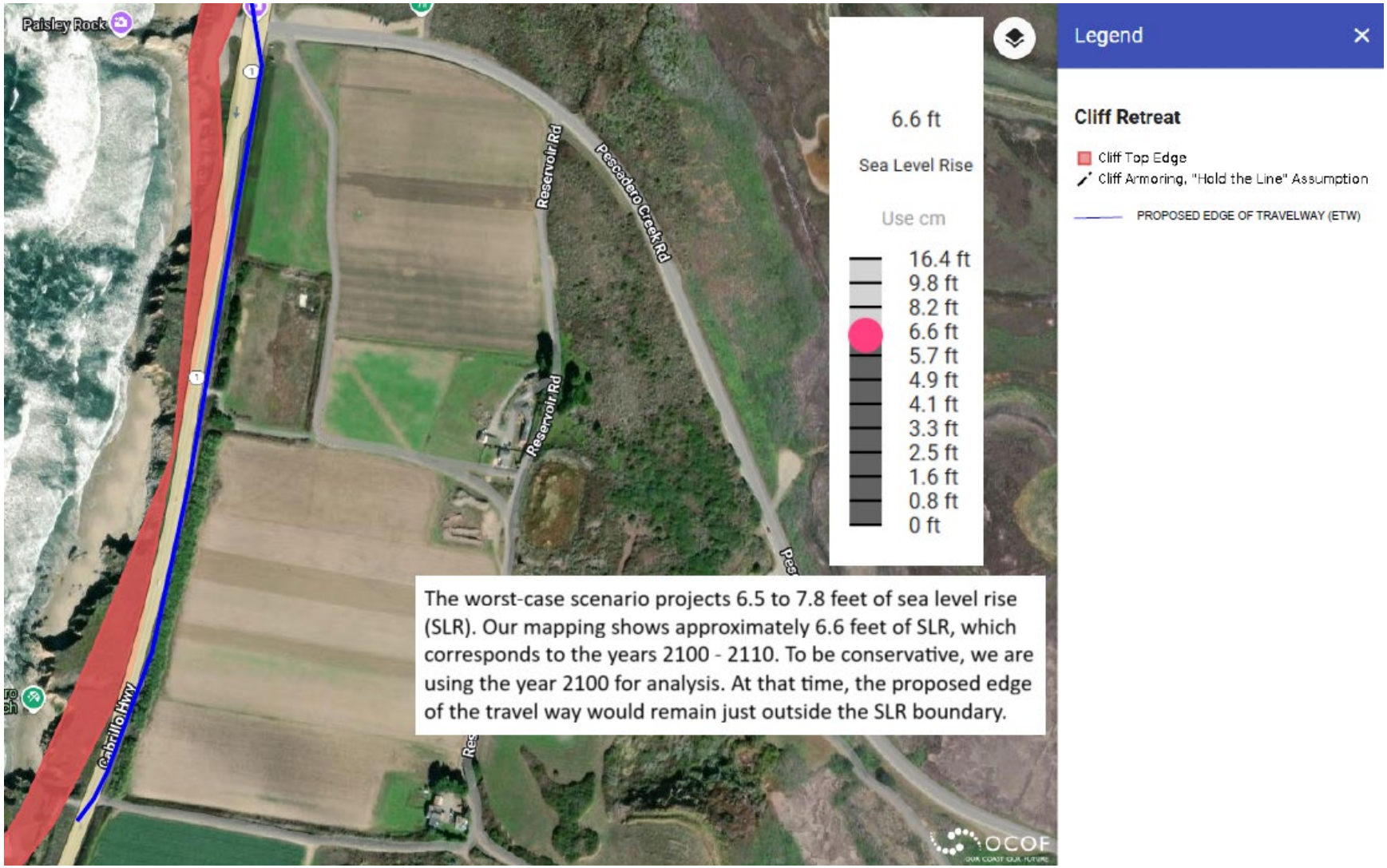


Figure 3-5. Our Coast Our Future Tool

Precipitation and Flooding

The Build Alternative is not expected to increase precipitation or flooding.

Wildfire

The project limits overlap CalFire's high fire hazard severity zone within the state responsibility area due to miles of vegetation in the western portion of San Mateo County and the high winds associated with coastal storms (CalFire 2024). During final design, Caltrans will evaluate construction materials choices, such as using concrete and steel instead of PVC and wood, for the potential of the project to be in the path of a large wildfire.

Temperature

The Caltrans Climate Change Vulnerability Assessment indicates that average minimum temperatures within the project limits could increase by 2.9 degrees Fahrenheit by 2055 and 6.2 degrees Fahrenheit by 2085, with average 7-day maximum temperatures increasing by 4.1 degrees Fahrenheit by 2055 and 7.5 degrees by 2085 (Caltrans 2017). During final design, Caltrans will evaluate construction material choices for the potential future temperature increase of 7.5 degrees.

3.3 SENATE BILL 743/INDUCED DEMAND ANALYSIS

Senate Bill 743 (2013) amended CEQA to allow the Governor's Office of Planning and Research to develop new guidelines under CEQA establishing alternative metrics to levels of service for the analysis of transportation impacts. On December 28th, 2018, the Office of Administrative Law approved the amendments to the CEQA Guidelines including changes related to Senate Bill 743. The amended CEQA Guidelines add a new section on determining the significance of transportation impacts, and generally specify VMT as the most appropriate measure of transportation impacts. In 2020, Caltrans prepared guidance documents for the implementation of Senate Bill 743 and adopted VMT as the CEQA transportation metric. These documents, the "Transportation Analysis Framework" and "Transportation Analysis under CEQA," along with other information, can be found on the Caltrans Senate Bill 743 website.

This project is a type of project identified by the "Transportation Analysis under CEQA" as a project not likely to lead to a measurable and substantial increase in VMT. This project consists of realigning the roadway only and will not make any changes to traffic speed or volume. Therefore, an induced demand analysis is not required.

3.4 WILDFIRE

3.4.1 Regulatory Setting

Senate Bill 1241 required the Office of Planning and Research, the Natural Resources Agency, and the California Department of Forestry and Fire Protection to develop amendments to the "CEQA Checklist" for the inclusion of questions related to fire

hazard impacts for projects located on lands classified as very high fire hazard severity zones. The 2018 updates to the CEQA Guidelines expanded this to include projects "near" these very high fire hazard severity zones.

3.4.2 Affected Environment

The project site is located within a high fire hazard severity zone. There are also very high fire hazard areas along SR 1.

3.4.3 Environmental Consequences

No Build Alternative

Under the No Build Alternative, the project site would remain in its current condition and would retain the same level of susceptibility to wildfire hazards.

Build Alternative

Under the Build Alternative, at least one lane would remain open during construction and thus, the project would not impair emergency access along SR 1. Any alternate travel routes for emergency access or evacuations needed would be coordinated with local emergency responders and law enforcement agencies through the implementation of a TMP (see PF-TR-1, Section 1.5). Project features to minimize fire risks would be implemented during construction, such as clearing vegetation from the work area, prohibiting the use of highly flammable chemicals, following locally changing meteorological conditions, and maintaining awareness of the possibility of increased fire danger when work is in progress (see PF-WF-1, Section 1.5). All construction activities would follow state and federal fire regulations.

3.4.4 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation is required.

3.5 CUMULATIVE IMPACTS

3.5.1 Regulatory Setting

Under CEQA (Guidelines Section 15355), "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts.

3.5.2 Resources Considered for Cumulative Impact Analysis

This cumulative impact analysis determines whether the project, in combination with projects that are planned, approved, or under construction, would result in a cumulative effect, and, if so, whether the project's contribution to the cumulative effect would be considerable. The past, present, and reasonably foreseeable projects included in the cumulative impact analysis are described below. There are no current projects within the project vicinity that are in construction.

Projects Considered for Cumulative Analysis:

- **Minor B Safety Lighting Project** – This project to install a light at the intersection of SR 1 and SR 84 is complete. This project is located at post mile 18.2 on SR 1.
- **Pescadero Creek Bridge Rails Project** - This project to replace the bridge rails on the Pescadero Creek Bridge on SR 1 is complete. The bridge is located at post mile 14.0 on SR 1. The project replaced the Type 27 bike barrier and Type 25 concrete barrier with standard Type 85 barriers. The construction work occurred on the bridge itself, on paved staging areas, and in places where guardrail already existed.
- **State Route 1 and State Route 84 Structures and Scour Mitigation Project** – This project to protect the San Gregorio Creek Bridge on SR 84 (PM 7.55) and the Pilarcitos Creek Bridges on SR 1 (PM 28.9) piers from scour is expected to be completed by the end of 2025. The project involves replacing partially grouted rock slope protection around the bridge piers and stream banks below the bridges in order to protect them from erosion.
- **State Route 1 Major Road Realignment Project** – This project proposes to realign SR 1 in some locations between post mile 10.7 and 19.4 and is currently in the planning phase. This project proposes to address sea level rise, recurring bluff erosion, and storm surge concerns along the coast of San Mateo County by reconstructing SR 1 along the existing roadway alignment.

The current phase of planning includes a range of alternatives as well as to estimate the cost and schedule for the project. Early project coordination indicates the segment of SR 1 near San Gregorio may not be moved from its existing alignment due to the lower risk of sea level rise at this location.

- **State Route 1 Pavement Preservation Project** – This project proposes to restore pavement on the roadway, shoulders, pullouts, turning lanes, and driveways on SR 1 from post mile 10.6 to 27.5 and replace guardrails, install bicycle and pedestrian safety features, and upgrade culverts and drainage features. This project is in the preliminary planning phase and a construction date has not yet been set.

The cumulative impacts analysis follows the Caltrans six-step process established in the May 2025 interim guidance on cumulative impact analysis under CEQA (Caltrans 2025), as follows:

1. Determine which environmental resources to include in the cumulative impact analysis.

2. Determine the resource study area.

3. Describe the existing cumulative condition.

4. Discuss whether the project's impacts are cumulatively considerable

5. If the project's contribution is cumulatively considerable, discuss any additional proposed mitigation for Caltrans' contribution to cumulative condition.

6. State post-mitigation conclusion (if additional mitigation was added to address cumulative impacts).

The project is anticipated to have no impacts or less than significant impacts on most of the resource areas identified in this document. Resources that the project would have no impact or less than significant impacts to would not contribute to a cumulative impact, therefore do not need to be included in this analysis. The project could have impacts to the following resources that require avoidance, minimization, and/or mitigation measures and have been included in this analysis:

- Visual/Aesthetic Resources
- Cultural Resources
- Water Quality
- Biological Resources

3.5.3 Resource-by-Resource Cumulative Impact Analysis

Visual/Aesthetic Resources: The proposed realignment of the highway will result in vegetation removal along the eastern side of SR 1 but will not significantly alter views to the ocean or coastal hills or expose adverse conditions. The vegetation removal will open views to adjacent agricultural land in the foreground and preserve distant views to the hills. Views of agricultural fields are a characteristic feature of SR 1 as it traverses San Mateo County and the greater visibility to them at this location will be consistent with corridor views. Consequently, visual impacts are minimal to low with the low change to visual character and quality and preservation of the highly valued views to the ocean and surrounding hills along SR 1.

Furthermore, removal of existing temporary barriers along some portions of the highway and the restoration of damaged areas and removed roadway with native vegetation will likely be beneficial to the overall visual quality.

The projects listed above are widely distributed at discontinuous spot locations and do not overlap in their construction timing. However, projects that include vegetation removal on SR 1, features that obscure views of the ocean or hills, or added lighting would together with the proposed project could have an effect on the cumulatively considerable visual resource. The proposed project includes AMM-VIS-1 and MM-BIO-2 to ensure the visual character and quality of the corridor is maintained. None of the projects listed above would be visible in the same viewshed as the proposed project. The proposed project along with the planned projects would not contribute to cumulatively considerable impacts to visual/aesthetic resources.

Cultural Resources: Section 2.2.7 describes existing conditions in the project's APE. None of the previously completed projects reported effects to cultural resources (including Tribal Cultural Resources). The proposed project would employ avoidance and minimization measures to reduce the potential to affect cultural resources, including Tribal Cultural Resources, if present. Future projects would also need to evaluate any potential to result in a cumulatively considerable effect The proposed project would not result in a cumulatively considerable impact on cultural resources, including Tribal Cultural Resources.

Water Quality/Biological Resources: The resource study area for water quality and biological resources is the BSA, as defined in Section 2.4. The BSA contains special-status terrestrial and aquatic animal species (birds, turtles, snakes, frogs), and wetlands. The existing cumulative condition varies based on the exact resource. In general, the BSA supports a wide diversity of unique and rare species, many which are threatened or endangered.

The Build Alternative would realign the roadway inland alongside or overlapping wetlands. Construction activities would require avoidance, minimization, and mitigation measures for impacts to wetlands and special-status species and their habitats. MM-BIO-2 and the new unlined drainage ditch is proposed to offset these impacts.

None of the other planned projects listed above have the potential to occur in the BSA. The avoidance, minimization, and mitigation measures for the proposed project have been committed to in order to restore or improve the health of both water quality and biological resources following project construction. With implementation of these measures as well as permit conditions for the proposed project, no cumulatively considerable impacts would occur.

3.6 CEQA ENVIRONMENTAL CHECKLIST

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form 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 BMPs 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; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 in order to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

3.6.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

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

CEQA Significance Determinations for Aesthetics

a) No Impact

Views of the coastline and Pacific Ocean to the west and hills to the east are visible from the roadway along the length of the project. With the 32-foot shifted realignment of the roadway, these vistas would be unchanged.

b) Less Than Significant Impact

The project is located along an Officially Designated State Scenic Highway. While vegetation and trees will be removed along the eastern edge of the highway between Reservoir and Pescadero Roads, this removal will reveal adjacent agricultural fields. Revegetation of the removed roadway to the west of the realigned one and along the reconstructed unlined drainage ditch to the east will avoid creating gaps in the vegetated area along the highway. Restoration planting for the trees, the 22 Monterey pines, would be conducted near the location of existing trees at the ROW line, or at an offsite location within the coastal zone. The visual character and quality will be maintained, preserving the scenic resource.

c) No Impact

The project is within a rural area characterized by views of the coastline and ocean below coastal bluffs and vegetated rolling hills. Agricultural fields and associated structures are intermittently seen along the primarily undeveloped natural corridor. Realignment of the highway to the east and rehabilitation of the drainage infrastructure will not alter the visual character and quality. These

improvements are ground plane changes that will be replaced largely in kind. Removal of vegetation to realign the roadway will open views to adjacent agricultural land.

d) No Impact

No additional lighting is proposed. Any above-grade drainage structures or pipes will be treated with colors and/or textures that blend with the surrounding soils and vegetation and minimize glare. Consequently, there is no permanent impact from lighting or glare that would adversely affect views.

3.6.2 Agriculture and Forestry Resources

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

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

CEQA Significance Determinations for Agriculture and Forestry Resources

a), b), and e) Less Than Significant Impact.

The project would convert approximately 1.17 acres of prime farmland and Williamson Act contract land for a drainage easement. Approximately 0.26 acre of prime farmland and Williamson Act contract land will be temporarily impacted through the TCE. See Section 2.2.4, Farmlands, for a detailed description of which parcels of farmland will be temporarily and permanently impacted.

Within the context of the San Mateo County's landscape, the small amount of farmland acquisition (Table 2-3, Section 2.2.3) would not substantially affect agricultural productivity in the region and existing landowners would still retain ownership of the remaining parcel.

The project will result in 1.17 acres of permanent conversion of Williamson Act lands to non-agricultural use, while the total area of the Williamson Act listed properties is approximately 49.03 acres. The project will result in roughly 2.4 percent permanent impact to the total area of the Williamson Act properties. While the project will conflict with existing zoning for a Williamson Act contract, the percentage of impact to the overall property will be less than significant.

c) and d) No Impact.

The project would not conflict with existing zoning for forest land or timberland as there are no lands zoned as forest lands or timberlands within the project footprint.

3.6.3 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. Would the project:

Question	CEQA Determination
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?	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

CEQA Significance Determinations for Air Quality

a)–d) No Impact. The project limits are in unincorporated San Mateo County in a rural area along SR 1 with sensitive receptors living more than 1,000 feet away from any construction activity. The project would not change the use of the roadway that would lead to an increase in air pollutants. Construction activities would be short-term and would not affect a substantial number of people. Project Feature PF-AQ-1 (Section 1.5) would minimize construction-related air pollution.

3.6.4 Biological Resources

Would the project:

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

CEQA Significance Determinations for Biological Resources

a) Less Than Significant Impact with Mitigation Incorporated.

The biological study area, including all direct and indirect locations that have the potential to be affected by construction and operations of the proposed Build

Alternative, includes the potential to contain special-status animals (Saltmarsh common yellowthroat) and threatened or endangered species (NWPT, CRLF, SFGS, California least tern, and western snowy plover). Each species is described further in Section 2.4.4, Animal Species, and Section 2.4.5, Threatened and Endangered Species.

Construction activities have the potential to injure individuals through construction-related activities causing dust and noise, impacts on water quality, and temporary impacts on use of or movement through some areas because of construction fencing. The project also has the potential to affect species through minor realignment of the roadway. The project includes standard project features (Section 1.5) and avoidance and minimization measures (Section 2.4) that would minimize the impacts to special-status plants and animals.

The preliminary effect finding for each threatened or endangered species with the potential to occur within the BSA is below:

- Northwestern pond turtle: *May affect, likely to adversely affect*
- California red-legged frog: *May affect, likely to adversely affect*
- San Francisco garter snake: *May affect, likely to adversely affect*
- California least tern: *May affect, not likely to adversely affect*
- Western snowy plover: *May affect, not likely to adversely affect*

Impacts to rare, endangered or unique species habitat for CRLF, SFGS, and NWPT would be temporary. Upland dispersal habitat for CRLF and SFGS would be restored at a 1:1 ratio on site by removing both the existing roadway and the existing concrete lined drainage ditch (Section 1.4), restoring the landscape with appropriate coastal bluff terrace plantings, and constructing a new unlined drainage ditch habitat (approximately 1.68 acres) with graded aquatic features, wetland hydroseed and vegetation liner stock plantings. The aquatic non-breeding habitat for CRLF, SFGS, and NWPT would be restored by reestablishing the wetlands, waters, and other ESHAs that provide aquatic conditions.

Caltrans would also implement the Project Features outlined in Section 1.5 to reduce potential impacts to special-status species. The additional measures MM-BIO-1, MM-BIO-2, MM-BIO-4, AMM-BIO-1, and AMM-BIO-7 through AMM-BIO-13 would be implemented to further avoid and minimize effects on special-status species.

b) and c) Less Than Significant Impact with Mitigation Incorporated.

As described in Section 2.4.1, Natural Communities, the BSA consists largely of landscape with ruderal vegetation, with some paved asphalt parking spaces along the road. Surrounding non-urban/developed areas adjacent to roadways are either farmland, or largely contain weedy and non-native vegetation.

The proposed project would impact ESHAs through the reconstruction of the roadway, and creation of the replacement unlined drainage ditch. Approximately 1.64 acres of

new roadway will be constructed, entirely within a variety of ESHAs. Approximately 1.68 acres of new unlined drainage ditch will be graded, resulting in permanent ESHA impacts during construction. See AMM-BIO-1 and MM-BIO-1 from Section 2.4.1, Natural Communities, for more information.

Within the BSA, 30 Monterey pines were identified on site and outside of their native range. 0.197 acres of Monterey pine habitat is present, with 25 trees within this specific habitat. The 25 trees form a tree line east of the roadway and existing concrete lined drainage ditch, and the remaining five trees are within the southwest corner of the BSA, at the driveway to the residence at 13187 Cabrillo Highway (see Figure 2-8 from Section 2.4.1). Approximately 22 Monterey pines would need to be removed for this project. A palette of trees within their native range would be replanted to recreate the value of the ESHA. Restoration planting for this resource would be conducted near the location of existing trees at the right of way line, or at an offsite location within the coastal zone. See MM-BIO-3 from Section 2.4.1.

d) Less Than Significant Impact.

As described in Section 2.4, several species have the potential to use the BSA for migratory movement, such as migratory birds, and special-status amphibians. Standard project features (Section 1.5) and avoidance and minimization measures (Section 2.4.3) would minimize impacts to these species. The impact to migratory species would be less than significant.

e) Less Than Significant Impact.

As described in Section 2.2.1, the project overlaps the California coastal zone and falls under the provisions of the California Coastal Act and San Mateo County LCP. With the standard project features (Section 1.6) and avoidance and minimization measures included, the proposed project would generally be consistent with both plans. The impact would be less than significant.

f) Less Than Significant with Mitigation Incorporated.

There are no applicable Habitat Conservation Plans or Natural Community Conservation Plans that overlap the project limits. However, this project is within the coastal zone and is subject to the Coastal Act. There are temporary and permanent impacts to biological ESHAs (see Section 2.4.1, Natural Communities). These impacts will be minimized through the implementation of MM-BIO-1 through MM-BIO-4 and AMM-BIO-1 through AMM-BIO-14.

3.6.5 Cultural Resources

Would the project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less Than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less Than Significant Impact

CEQA Significance Determinations for Cultural Resources

a) No Impact. An Extended Phase I study of the area of potential effects was conducted from May 5 to 7, 2025. No historical resources were identified.

b) Less Than Significant Impact. A cultural resources records search was conducted by the Northwest Information Center (NWIC) of the California Historical Resources Information System. The records search identified one previously recorded cultural resource, CA-SMA-250. This resource is a prehistoric archaeological site plotted at the NWIC.

To avoid impacts to this resource, the mapped boundaries of the archaeological site will be designated as an environmentally sensitive area (ESA; see AMM-CUL-1 in Section 2.2.7). The site will be avoided during construction. The impact will be less than significant.

c) Less Than Significant Impact.

There are no known human remains within the APE; however, Caltrans determined there is potential to encounter Tribal Cultural Resources. Implementing a construction training, monitoring, and discovery plan (AMM-CUL-1 through AMM-CUL-3 in Section 2.2.7 and AMM-CUL-4 in Section 3.6.18) would avoid or reduce impacts to potential resources by providing for resource avoidance or protection in place where possible, and treatment of resources in accordance with tribal cultural values when avoidance or protection is not feasible.

3.6.6 Energy

Would the project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less Than Significant Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less Than Significant Impact

CEQA Significance Determinations for Energy

a) and b) Less than Significant Impact. The project would result in energy consumption during construction. Energy consumed during construction would be limited, temporary, necessary, and would be reduced through implementation of Project Feature PF-AQ-1 (Section 1.5). The project would not add roadway capacity or new permanent energy-consuming facilities to the site. For these reasons, the project would not result in significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources or conflict with a state or local plan for renewable energy or energy efficiency.

3.6.7 Geology and Soils

Would the project:

Question	CEQA Determination
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.	Less Than Significant Impact
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
iv) Landslides?	Less Than Significant Impact

Question	CEQA Determination
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- 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 direct or indirect risks to life or property?	Less Than Significant Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

CEQA Significance Determinations for Geology and Soils

a) – d) Less than Significant Impact. Caltrans' design and construction guidelines incorporate engineering standards that address seismic risks. Project elements will be designed and constructed to meet seismic design requirements for ground shaking and ground motions, as determined for the project vicinity and site conditions. Caltrans will also conduct additional geotechnical subsurface and design investigations that will be performed during the final design (PF-GEO-1 in Section 1.5). With implementation of these standards and requirements, the project would have a less than significant impact associated with geologic hazards.

e) No Impact. The project would not connect to a septic system or other sewer system and would not generate sewage. Therefore, the project would have no impact associated with soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

f) No Impact. The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

3.6.8 GHG Emissions

Would the project:

Question	CEQA Determination
a) Generate GHG 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 GHGs?	Less Than Significant Impact

CEQA Significance Determinations for GHG Emissions

a) and b) Less than Significant Impact. As discussed in Section 3.2.3, the project is considered to have a less than significant GHG emissions impact because it would not increase roadway capacity along SR 1. The project would not introduce any new permanent sources of GHG emissions. GHG emissions during construction would be limited and temporary and the project would implement measures to limit unnecessary GHG emissions to the extent feasible as further described in Section 3.2.3.

3.6.9 Hazards and Hazardous Materials

Would the project:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant 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?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two nautical 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

Question	CEQA Determination
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less Than Significant Impact

CEQA Significance Determinations for Hazards and Hazardous Materials

a) Less Than Significant Impact. Project construction and maintenance activities are expected to involve the routine transport, use, and disposal of hazardous materials (e.g., fuels, paints, and lubricants) that could pose a threat to human health or the environment if not properly managed. Adherence to federal and state regulations during project construction and maintenance would reduce the risk of exposure to hazardous materials and accidental hazardous materials releases. Compliance with existing regulations is mandatory; therefore, neither Build Alternative is expected to create a hazard to construction workers, the public, or the environment through the routine transport, use, disposal, or accidental release of hazardous materials.

b) Less Than Significant Impact. During construction, hazardous materials such as fuels, paints, and lubricants would be used. These materials could pose a threat to human health or the environment if not properly managed. Adherence to federal and state regulations during project construction and maintenance would reduce the risk of exposure to hazardous materials and accidental releases of hazardous materials. Compliance with existing regulations is mandatory. Therefore, construction of the proposed project is not expected to create a hazard to construction workers, the public, or the environment. Implementation of Project Feature PF-HAZ-1 (Section 1.5) would avoid or minimize potential impacts associated with hazardous materials. Impacts involving the release of hazardous materials are anticipated to be less than significant.

c) No Impact. There are no existing or proposed schools within 0.25 mile of the project area.

d) No Impact. The project is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e) No Impact. There are no airports within 2 miles of the project, and the project area is not included in an airport land use plan.

f) Less Than Significant Impact. SR 1 is a major north-south highway for the communities near the project area, and it is assumed that SR 1 would be used as an evacuation route in the event of an emergency. The project would be subject to the San Mateo County's Emergency Operations Plan, which provides guidelines for emergency response planning, preparation, training, and execution throughout the county. Project construction would result in minor increases in short-term construction-related traffic on SR 1, however, Caltrans would prepare a TMP to maintain the flow of traffic during construction and ensure accessibility through the locations along SR 1 for essential

services and vehicles (PF-TR-1 in Section 1.5). In the event of such an emergency, Caltrans would coordinate with local officials to ensure that SR 1 remains open to emergency traffic. There would be less than a significant impact.

g) Less Than Significant Impact. The project is within zones classified as High Fire Severity State Responsibility Areas. The realignment of this segment of SR 1 would not affect occupants, nor would it require the installation of associated infrastructure that would exacerbate fire risk. The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. The impact would be less than significant.

3.6.10 Hydrology and Water Quality

Would the project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less Than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less Than Significant 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- or off-site;	Less Than Significant Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant 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	Less Than Significant Impact
(iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Less Than Significant Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

CEQA Significance Determinations for Hydrology and Water Quality

a) Less than Significant Impact. During construction, temporary water quality impacts have the potential to occur from sediment discharge from disturbed soil areas; construction activities such as grading and excavation near water sources; and use of construction vehicles and equipment. During project construction, the Build Alternative would result in 7 acres of disturbed soil area. Construction site BMPs for erosion and sediment control and material management (PF-WQ-1 in Section 1.5 and AMM-WQ-1 in Section 2.3.1) would be specified in the SWPPP prior to construction and would be monitored during construction.

The Build Alternative would result in 1.75 acres of net new impervious surface area. The added impervious surface area would have a minimal increase in stormwater pollution effects. Pollution and runoff sources are not expected to change. These impacts would be reduced through the implementation of stormwater BMPs (PF-WQ-2 in Section 1.5). In addition, the project would require a 401 Water Quality Certification from the RWQCB, which would include requirements to avoid or minimize water quality impacts during and after construction. With the implementation of project features and AMMs, the project would have less than significant impacts to water quality and would not violate any water quality standards.

As mentioned in Section 1.4, a new unlined drainage ditch (which would be approximately 1.68 acres) would be established to restore coastal wetlands and waters on site. Liner stock planting and hydroseeding would restore the acreage of these resources to meet preconstruction conditions within a year of impact. Creation of the unlined drainage ditch would proceed as a first order of work to avoid temporal loss of aquatic resources and result in no permanent impact.

b) Less than Significant Impact. The project would not involve pumping and/or using groundwater. The project area is not located in any identified groundwater basin. The Build Alternative would add minimal net new impervious surface area. The minimal impervious surface area added by the Build Alternative would not substantially interfere with groundwater recharge.

c) (i), (ii), (iii), and (iv) Less than Significant Impact. As previously noted, the Build Alternative would add net new impervious surface area. The impervious surface area added by the Build Alternative would not result in substantial alterations of existing drainage patterns, result in substantial erosion or siltation, substantially increase runoff, or impede or redirect flood flows. Implementation of standard short-term and long-term BMPs (PF-WQ-1 and PF-WQ-2 in Section 1.5) and AMM-WQ-1 would minimize the potential for temporary or permanent impacts to drainage patterns.

d) Less than Significant Impact. The project site is located within an area subject to flooding. The Build Alternative would result in a minimal increase in impervious surface area, but the project would not otherwise introduce new or increased pollutants to the project area. Therefore, the project would not risk release of pollutants due to project inundation.

e) No Impact. The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.6.11 Land Use and Planning

Would the project:

Question	CEQA Determination
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?	Less Than Significant Impact

CEQA Significance Determinations for Land Use and Planning

a) No Impact. The project would not change access to or physical connectedness of any community.

b) Less Than Significant Impact. The project would not change a land use designation or conflict with the State Scenic Highway Program. The proposed project is generally consistent with the California Coastal Act and the San Mateo County LCP. The project would not result in a significant impact to the environment.

3.6.12 Mineral Resources

Would the project:

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

CEQA Significance Determinations for Mineral Resources

a) and b) No Impact. The project site is not located on or near a mapped mineral deposit, active quarry, or other mineral resource site. The project would not result in the loss of availability of a known mineral resources or mineral resources recovery site.

3.6.13 Noise

Would the project result in:

Question	CEQA Determination
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two nautical 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

CEQA Significance Determinations for Noise

a) – c) No Impact. The project would not generate 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. The project would not generate excessive groundborne vibration or groundborne noise levels. There are no airports within two miles of the project limits. Additionally, the project would not introduce any new people working or residing in the area post-construction.

3.6.14 Population and Housing

Would the project:

Question	CEQA Determination
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

CEQA Significance Determinations for Population and Housing

a) No Impact. The project would not involve the construction of new residential buildings, businesses, or expand transportation services and facilities that could induce population growth. No impact would result from the project.

b) No Impact. The project would not remove or displace existing people or housing and would not necessitate construction of replacement housing elsewhere. No impact would result from the project.

3.6.15 Public Services

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 following public services:

Question	CEQA Determination
a) Fire protection?	No Impact
b) Police protection?	No Impact
c) Schools?	No Impact
d) Parks?	No Impact
e) Other public facilities?	No Impact

CEQA Significance Determinations for Public Services

a) – e) No Impact.

The project would not add roadway capacity or housing or otherwise directly or indirectly result in population growth that would require the construction or alteration of public service facilities. In addition, during construction, at least one lane of traffic will remain open at all times so the project would not disrupt access for fire protection or police protection services or access to schools, parks, or other public facilities. Additionally, a TMP will be prepared for the project, which would include the development of contingency plans in coordination with CHP and local law enforcement (PF-TR-1 in Section 1.5). For these reasons, the project would have no impact on the environment associated with public services.

3.6.16 Recreation

Question	CEQA Determination
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

CEQA Significance Determinations for Recreation

a) and b) No Impact. The project would not add roadway capacity or otherwise directly or indirectly increase the use of Pescadero State Beach or other nearby parks and recreational facilities. The project would not include any recreational facilities or otherwise require the construction or expansion of recreational facilities.

The TMP (PF-TR-1 in Section 1.5) would include outreach to inform agencies, California State Parks, and the public of the times and locations of upcoming construction, construction signs in and approaching the project area, and incident management for traffic control in the vicinity of construction activities.

3.6.17 Transportation

Would the project:

Question	CEQA Determination
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

CEQA Significance Determinations for Transportation

a) – c) No Impact. The project would improve the safety conditions for vehicles, bicyclists, and pedestrians along SR 1 and would not alter the number of travel lanes or other traffic operations. For these reasons, the project would not conflict with a program, policy, ordinance, or policy addressing the circulation system and would not result in an increase in VMT, consistent with CEQA Guidelines section 15064.3, subdivision (b).

d) Less than Significant Impact. At least one lane would remain open during construction consistent with the project TMP (PF-TR-1 in Section 1.5), allowing for emergency access across SR 1. The project would not result in any post-construction impacts to emergency access.

3.6.18 Tribal Cultural Resources

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

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

CEQA Significance Determinations for Tribal Cultural Resources

a) and b) Less Than Significant Impact.

Caltrans submitted a request to the NAHC to conduct a search of the Sacred Lands File (SLF) in the vicinity of the APE and to obtain a list of Native American contacts for the region on February 9, 2024. The NAHC replied on February 16, 2024, with a negative result for the SLF search and a list of Native American contacts for the region.

Caltrans initiated Section 106 and AB 52 consultation on March 22, 2024, via email with all contacts listed by the NAHC. These contacts included Andrew Galvan of The Ohlone Indian Tribe, Kanyon Sayers-Roods of the Indian Canyon Mutsun Band of Costanoan Ohlone People, Henry Munoz of the Costanoan Rumsen Carmel Tribe (CRCT), Irenne Zwierlein of the Amah Mutsun Tribal Band of Mission San Juan Bautista, Kenneth Woodrow of the Wuksache Indian Tribe/Eshom Valley Band, Monica Arellano of the Muwekma Ohlone Tribe of the San Francisco Bay Area, and Gregg Castro of the Association of Ramaytush Ohlone. Follow-up emails were sent on May 23, 2024, to update Tribes on a change to the Undertaking post mile range. Responses were received from the Indian Canyon Mutsun Band of Costanoan Ohlone People, CRCT, and the Amah Mutsun Tribal Band of Mission San Juan Bautista, all of whom

recommended tribal monitoring and cultural sensitivity training. CRCT requested an informational meeting, which occurred on August 8, 2024, and to be involved in the Undertaking from start to finish. A follow-up in-person meeting at the Undertaking location with Caltrans and CRCT occurred on October 16, 2024. Caltrans agreed to provide draft copies of any cultural study proposals or reports to CRCT for their review and comment and will ensure that CRCT will be retained to monitor any fieldwork associated with the Undertaking. The draft Extended Phase 1 report was sent to CRCT on November 4, 2025 and Caltrans has not received comments at this time. No other responses have been received to-date and consultation with CRCT is ongoing throughout the life of the project.

In coordination with interested Native American Contacts, Caltrans determined that there is potential to encounter tribal cultural resources. With the implementation of AMM-CUL-4, the impacts to tribal cultural resources will be less than significant. In the event that previous unidentified cultural resources are discovered, Caltrans would implement tribal consultation protocols in coordination with the representatives of the Costanoan Rumsen Carmel Tribe and other interested Native American groups.

AMM-CUL-4: Discovery for Potential Tribal Cultural Resources. In the event that previous unidentified cultural resources are discovered, construction activities will stop and tribal consultation protocols will be implemented. Recommendations for treatment and disposition of finds could include, but are not limited to, the collection, recordation, and analysis of any significant cultural materials, or the turning over of Tribal Cultural Resources to Tribal representatives for appropriate treatment.

3.6.19 Utilities and Service Systems

Would the project:

Question	CEQA Determination
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?	Less Than Significant Impact

Question	CEQA Determination
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less Than Significant Impact

CEQA Significance Determinations for Utilities and Service Systems

a) – c) No Impact. The project would not relocate or require the expansion of any utility facilities. The project would not result in an increase in demand on water wastewater, electric, natural gas, or telecommunication services.

d) and e) Less than Significant Impact. Construction waste would be disposed of at a certified facility based on the waste type and would not substantially affect landfill capacity. The project would comply with statutes and regulations related to construction solid waste management and recycling. The project would not result in an operational increase in solid waste.

3.6.20 Wildfire

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

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less Than Significant 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?	Less Than Significant 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?	Less Than Significant 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?	Less Than Significant Impact

CEQA Significance Determinations for Wildfire

a) – d) Less than Significant Impact. The project is within zones classified as High Fire Severity State Responsibility Areas (CAL FIRE 2024). At least one lane would remain open during construction and thus, the project would not impair emergency access along SR 1. Any alternate travel routes for emergency access or evacuations needed would be coordinated with local emergency responders and law enforcement agencies through the implementation of a TMP (PF-TR-1 in Section 1.5). Project features to minimize fire risks would be implemented during construction, such as clearing vegetation from the work area, prohibiting the use of highly flammable

chemicals, following locally changing meteorological conditions, and maintaining awareness of the possibility of increased fire danger when work is in progress (PF-WF-1 in Section 1.5). All construction activities would follow state and federal fire regulations.

3.6.21 Mandatory Findings of Significance

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

CEQA Significance Determinations for Mandatory Findings of Significance

a) Less Than Significant with Mitigation Incorporated. The project would have both temporary and permanent impacts on special-status species and their habitats as well as wetlands and waters of the U.S.; however, impacts with minimization measures and mitigation incorporated would not substantially reduce the number or range of habitat or wildlife at a population level. Additionally, the project would not eliminate a plant or animal community or substantially reduce the number or range of any rare or endangered plant or animal. The project would not eliminate any examples of major periods of California history or prehistory. Since the project would have impacts on special-status species and wetlands and waters that would be less than substantial at population or community levels, impacts would be less than significant with mitigation. Mitigation measures, such as MM-BIO-1 through MM-BIO-4, and minimization measures, such as AMM-BIO-1 through AMM-BIO-14, would be incorporated so that the impacts would be less than significant with mitigation incorporated.

b) Less than Significant Impact. The project has been evaluated for cumulative impacts, as described in Section 3.5. The project would contribute less than significant impacts that would be cumulatively considerable.

c) Less than Significant Impact. The project would result in construction impacts that could affect human beings (e.g., construction noise), but these impacts would be limited, temporary, and would not be significant.

Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency and tribal consultation for this project have been accomplished through a variety of formal and informal methods, including frequent agency coordination meetings and Project Development Team meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

4.1 Consultation and Coordination with Public Agencies

4.1.1 Native American Tribal Consultation

Caltrans submitted a request to the NAHC to conduct a search of the SLF in the vicinity of the APE and to obtain a list of Native American contacts for the region on February 9, 2024. The NAHC replied on February 16, 2024, with a negative result for the SLF search and a list of Native American contacts for the region. Native American consultation is described further in Sections 2.2.7 and 3.6.18.

4.1.2 California Coastal Commission/San Mateo County Local Coastal Program

Caltrans has met regularly with the CCC to discuss this and other ongoing projects in the district. With regard to this project, Caltrans had a focus meeting with CCC on March 7, 2025 to brief them on the project's purpose and need and range of alternatives.

San Mateo County LCP has jurisdiction over the project footprint. Caltrans will coordinate with San Mateo County and submit a Coastal Development Permit (CDP) application during the final design phase.

4.2 Circulation, Review, and Comment on the Draft Environmental Document

Public input on the project will be solicited during the review period for this Initial Study/Environmental Assessment (IS/EA), which will last a minimum of 30 days. The public will be notified of the availability of the IS/EA by a number of methods, including postings on the Caltrans website, on the CEQANet database, and a mailed announcement. During the review period, Caltrans will hold a public meeting to share

information about the project and collect comments on the IS/EA from interested parties. The review period and instructions for submitting comments are included on the first page of this document. All formal comments received during the comment period will be addressed and responses published in the Final IS/EA.

If the Final IS/EA is approved, a Mitigated Negative Declaration and a Finding of No Significant Impact will be signed and included with the Final IS/EA.

Chapter 5 List of Preparers

The following Caltrans staff contributed to the preparation of this IS/EA.

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Chapter 6 Distribution List

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San Francisco, CA 94104

U.S. Senator Alex Padilla
United States Senate
333 Bush Street, Suite 3225
San Francisco, CA 94104

U.S. Congresswoman Jackie Speier
United States House of Representatives (CA-14)
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State Elected Officials
California Senator Josh Becker
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Federal Agencies
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San Francisco District, Regulatory Branch
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United States Fish and Wildlife Service
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State Agencies

San Francisco Bay Regional Water Quality Control Board, Region 2
1515 Clay St, Suite 1400
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California Department of Fish and Wildlife Region 3
Attention: Erin Chappell, Regional Manager
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California Department of Parks and Recreation
Natural Resources Division
P.O. Box 942896
Sacramento, CA 94296

California Department of General Services
Environmental Services Section
707 Third Street, Eighth Floor
West Sacramento, CA 95605

State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

California Air Resources Board
Attention: Dr. Steven S. Cliff, 1001 I Street
P.O. Box 2815
Sacramento, CA 95812

Bay Area Air Quality Management District
Executive Officer, Dr. Philip Fine
375 Beale Street, Suite 600
San Francisco, CA 94105

California Coastal Commission
455 Market Street, Suite 300
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California Highway Patrol
Commissioner, Sean Duryee
Office of Special Representative
601 North Seventh Street
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Appendix A Section 4(f)

Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determination(s)

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, or 4) the project does not permanently use the property and does not hinder the preservation of the property.

Section 4(f) Resource

As shown in Figure 2-1, the project footprint is surrounded by Pescadero State Beach. Pescadero State Beach is under the jurisdiction of the California Department of Parks and Recreation is, therefore, a Section 4(f) resource.

Section 4(f) Use

"Use" occurs when:

a. Land is permanently incorporated into a transportation facility [permanent acquisition or permanent easement], or
b. There is a temporary occupancy of land that is adverse in terms of the statute's preservationist purpose, or
c. There is (are) proximity impact(s) that substantially impair(s) the purpose of the land (this is called constructive use). An example of constructive use would be excessive noise near an amphitheater.

All temporary construction activities and permanent features of the proposed project would occur within the Caltrans ROW, and with a drainage easement and TCE for the installation of the unlined drainage ditch. No full land acquisition is required for the project. The project would not temporarily occupy any land subject to the provisions of Section 4(f). As described in Section 2.2.2, the proposed project would create temporary noise, dust, and traffic related to construction activities that could temporarily affect use of some portions of Pescadero State Beach. However, these disruptions would be limited and would not affect all portions of the State Beach. The proposed project would have no long-term effects to Pescadero State Beach. At PM 13.57. the beach can be accessed from a parking lot that is connected to SR 1 and only a portion of the parking lot driveway that conforms to the roadway is included within the project

limits. This portion of the parking lot is within Caltrans ROW. Access to Pescadero State Beach and local trails, such as the Pescadero Marsh Trail, would be maintained throughout construction. Therefore, none of the definitions of “use” would be triggered by the proposed project. The property is a Section 4(f) property, but no “use” will occur. Therefore, the provisions of Section 4(f) do not apply.

Appendix B Title VI/Non-Discrimination Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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September 2025

TITLE VI/NON-DISCRIMINATION POLICY STATEMENT

It is the policy of the California Department of Transportation (Caltrans), in accordance with Title VI of the Civil Rights Act of 1964 and the assurances set forth in the Caltrans' Title VI Program Plan, to ensure that no person in the United States shall on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Related non-discrimination authorities, remedies, and state law further those protections, including sex, disability, religion, sexual orientation, age, low income, and Limited English Proficiency (LEP).

Caltrans is committed to complying with 23 C.F.R. Part 200, 49 C.F.R. Part 21, 49 C.F.R. Part 303, and the Federal Transit Administration Circular 4702.1B. Caltrans will make every effort to ensure nondiscrimination in all of its services, programs, and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin (including LEP). In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

The overall responsibility for this policy is assigned to the Caltrans Director. The Caltrans Title VI Coordinator is assigned to the Caltrans Office of Civil Rights Deputy Director, who then delegates sufficient responsibility and authority to the Office of Civil Rights' managers, including the Title VI Branch Manager, to effectively implement the Caltrans Title VI Program. Individuals with questions or requiring additional information relating to the policy or the implementation of the Caltrans Title VI Program should contact the Title VI Branch Manager at title.vi@dot.ca.gov or at (916) 639-6392, or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

Dina El-Tawansy (Sep 12, 2025 16:52:12 PDT)

DINA A. EL-TAWANSY
Director

"Improving lives and communities through transportation."

Appendix C Avoidance, Minimization, and/or Mitigation Summary

To be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated in the proposed Environmental Commitments Record [ECR], in the following table) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed and will be filled out as each of the measures is implemented. Avoidance and Minimization Measures are denoted as AMMs. Duplicative or redundant measures have not been included in this ECR.

Measure	Responsible Party	Timing
AMM-PARK-1: Construction Notification. Caltrans will coordinate with California State Parks regarding the timing of construction activities that would affect Pescadero State Beach visitors so State Parks can alert visitors about the change in visitor experience.	Caltrans	Construction
AMM-VIS-1: Drainage Aesthetics. Any above-grade drainage structures or pipes shall be treated with colors and / or textures that blend with the surrounding soils and vegetation.	Contractor	Construction
AMM-CUL-1: Cultural Resources ESA. Archaeological ESAs will be delineated on the plans and described in the specifications. Appropriate protective measures including demarcations with flags or high visibility spray paint, or temporary high visibility fencing (THVF), access restrictions, and monitoring of the ESA boundaries by a qualified archaeologist and local Tribal representative will be implemented during construction.	Caltrans, Caltrans Office of Cultural Resource Studies, Tribal Representative	Final Design, Construction
AMM-CUL-2: Cultural Resources Monitoring. An Archaeological Monitoring Area (AMA) will be delineated/noted on the plans and described in the specifications. Appropriate protective measures including demarcations with flags or high visibility spray paint and monitoring by a qualified archaeologist and local Tribal representative will be implemented during construction within the AMA.	Caltrans, Caltrans Office of Cultural Resource Studies, Tribal Representative	Final Design, Construction

Measure	Responsible Party	Timing
AMM-CUL-3: Cultural Sensitivity Training. Prior to the initiation of construction for the project, the project contractor, staff, and construction crews shall be made aware of the potential to encounter cultural resources and Tribal Cultural Resources (including the traditional importance of resources such as cultural landscapes, significant waterways, and ethnobotanical plants) through a presentation provided by an archaeologist and a representative from local consulting Tribes.	Contractor, Caltrans, Caltrans Office of Cultural Resource Studies, Tribal Representative	Construction
AMM-CUL-4: Discovery for Potential Tribal Cultural Resources. In the event that previous unidentified cultural resources are discovered, construction activities will stop and tribal consultation protocols will be implemented. Recommendations for treatment and disposition of finds could include, but are not limited to, the collection, recordation, and analysis of any significant cultural materials, or the turning over of Tribal Cultural Resources to Tribal representatives for appropriate treatment.	Contractor, Caltrans, Caltrans Office of Cultural Resource Studies, Tribal Representative	Construction
MM-BIO-1: Unlined Wetland Drainage Ditch. Approximately 1.68 acres of unlined drainage ditch would be established to restore coastal wetlands and waters on site, as well as upland dispersal habitat for CRLF, SFGS, and NWPT to at least a 1:1 ratio. Graded aquatic features, liner stock planting and hydroseeding would restore the acreage of these resources to meet preconstruction conditions within a year of impact. The aquatic non-breeding habitat for CRLF, SFGS, and NWPT would be restored by reestablishing the wetlands, waters, and other ESHAs that provide aquatic conditions.	Caltrans	Construction
MM-BIO-2: Coastal Bluff Mitigation. Upland dispersal habitat for CRLF and SFGS would be restored to at least a 1:1 ratio on site by removing both the existing roadway, concrete lined drainage ditch, and restoring the landscape with appropriate coastal bluff terrace plantings. Approximately 2.07 acres of existing pavement would be removed to restore upland habitat on site fully offsetting the 1.64 acres of realigned roadway. Restoration of the old roadway hardscape area would be performed at the end of the project once the new roadway is installed and operational	Caltrans	Construction
MM-BIO-3: Monterey Pine Habitat Mitigation. Approximately 22 Monterey pines would need to be removed for this project. A palette of trees within their	Caltrans	Construction

Measure	Responsible Party	Timing
native range would be replanted to at least a 1:1 ratio to recreate the value of the ESHA. Restoration planting for this resource would be conducted near the location of existing trees at the right of way line, or at an offsite location within the coastal zone.		
MM-BIO-4: Amphibian Wildlife Crossing Mitigation. A suitable existing cross culvert would be upsized to at least 36 inches to function as an amphibian wildlife crossing. The upgraded culvert would increase the value and functionality of the habitat on site by connecting proposed restoration areas on both sides of the roadway and reducing roadway hazards to special status species individuals. The specific location would be identified during the design phase with the appropriate permitting agencies.	Caltrans	Construction
AMM-BIO-1: Wetlands and Waters Construction Work Window. Work in wetlands, waters, and riparian habitat would be limited to June 15 through October 15, to avoid or minimize impacts on waters of the U.S., WOS, riparian habitat, and special-status species habitat.	Contractor	Construction
AMM-BIO-2: Rare Plant Survey. During final design, Caltrans will complete a supplemental rare plant survey to confirm presence of special-status plants within the area of direct effects. All plants will be identified to a level needed to verify protected status. Any special-status plants discovered in the field will be mapped and included as ESAs in the final plans and specifications. Caltrans will consult with the appropriate agency with jurisdiction and obtain the necessary permits or authorizations if unavoidable take of a listed plant species incidental to the proposed work will occur.	Caltrans	Final Design
AMM-BIO-3: Preconstruction Plant Survey. A project biologist with appropriate botany experience will perform a site survey within the BSA before start of work, at the location where construction disturbance may occur. Special-status plants will be flagged and avoided where possible. Caltrans will coordinate with the appropriate regulatory agencies with jurisdiction before the start of construction if incidental take of a listed plant species is unavoidable and will obtain any necessary permits or authorizations for potential direct impacts. Caltrans will adhere to the requirements of all permits and authorizations issued for the proposed project.	Caltrans	Final Design

Measure	Responsible Party	Timing
AMM-BIO-4: Tree Survey. During final design, Caltrans will conduct an inventory of trees within the project footprint, will determine what trees will be removed or could be damaged during construction to support permit applications and develop a replanting plan.	Caltrans	Final Design
AMM-BIO-5: Preconstruction Nesting Bird Surveys. If construction activities occur between February 1 and August 31, a qualified biologist will conduct preconstruction surveys for nesting birds no more than 3 days before the start of construction. Surveys will consist of multiple days of observations (i.e., observations on a minimum of 2 separate days). If nesting birds are found, an appropriate non-disturbance buffer will be established around the nest, at the discretion of the qualified biologist. After the buffer areas are established, the area within the buffer will be avoided until the young birds have fledged or the nest is no longer active. Limited activity may occur within a buffer at the qualified biologist's discretion if constant biological monitoring suggests that the activity will not affect the nest. No activity will occur inside an established buffer without full-time biological monitoring and approval of the qualified biologist. The qualified biologist will have authority, through the resident engineer, to order the cessation of all construction activities inside or outside the buffer area if birds exhibit abnormal nesting behavior that may cause reproductive failure (nest abandonment and loss of eggs and/or young).	Caltrans	Final Design
AMM-BIO-6: Nesting Bird Buffer. If an active nest is discovered, a Caltrans-approved Biologist will establish an appropriately sized no-work protective buffer. The buffer size will be appropriate to the species, nest location, topography, cover, the individual's sensitivity to disturbance, and the intensity/type of construction activities.	Caltrans	Final Design
AMM-BIO-7: Preconstruction Surveys. Preconstruction surveys will be conducted at all proposed staging, work, and dewatering areas by a qualified biologist immediately before the start of construction in each area each day. The surveys will involve a visual inspection of the entire immediate work area. If special-status species are detected during preconstruction surveys, a qualified biologist either will stop work and the species will be allowed to move outside the work area on its own, or (with approval from CDFW) the species will be moved to the	Caltrans	Construction

Measure	Responsible Party	Timing
nearest suitable habitat outside the construction area (and wildlife exclusion fencing) that will not be disturbed. In addition, if resources (e.g., burrows for SFGS, CRLF, or bird nests) are found within the work areas, an appropriate exclusion buffer will be setup that will prohibit any work within it for the duration of the work period.		
AMM-BIO-8: Wildlife Exclusion Fencing. WEF will be installed along the perimeter of any staging areas within 300 feet of potentially suitable aquatic habitats. The fencing will remain throughout the duration of project construction and will serve to exclude special-status species from any staging areas where materials storage may encourage migrating individuals to seek cover. The WEF will be maintained by the contractor throughout the duration of construction in the area. The WEF will be trenched into the soil at least 4 inches deep, with the soil compacted against both sides of the fence for its entire length to prevent special-status species from passing under the fence. The barriers will be inspected by the qualified biologist at least twice weekly on nonconsecutive days throughout the duration of all construction activities in the area. Barriers will be installed by the contractor, with turnarounds at any access openings needed in the fencing to redirect reptiles and other animals away from openings.	Caltrans/ Contractor	Construction
AMM-BIO-9: Entrapment Avoidance. To prevent inadvertent entrapment of special-status species during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered with plywood or similar materials at the end of each workday, or the holes or trenches will contain one or more escape ramps, constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If a trapped special-status species is discovered at any time, the biologist will provide passive opportunities for safe egress out of the work area (e.g., providing an escape ramp that the NWPT can use to exit a trench). Otherwise, a qualified biologist, with approval from CDFW, will move the special-status species to the nearest suitable habitat outside the construction area that will not be disturbed.	Caltrans/ Contractor	Construction
AMM-BIO-10: Proper Use of Erosion Control Devices. To prevent special-status species from becoming entangled, trapped, or injured, erosion control materials	Caltrans/ Contractor	Construction

Measure	Responsible Party	Timing
that use synthetic monofilament netting will not be used within the BSA. This will include products that use photodegradable or biodegradable synthetic netting, which can take several months to decompose. Acceptable materials will include tackified hydroseeding compounds and natural fibers, such as jute or twine with a wide-aperture mesh.		
AMM-BIO-11: Daily Surveys. Daily surveys will be conducted throughout the work areas of the BSA for the duration of construction activities. The biological monitor, or an approved construction inspector, will inspect staging and work areas for the presence of dispersing special-status species.	Contractor	Construction
AMM-BIO-12: Biological Monitoring. An approved biological monitor will be present during all construction activities that may result in take of special-status species. Following the initial mobilization of the project site, the monitor will continue to be present daily. Preconstruction surveys will be conducted at all proposed staging, work, and dewatering areas by a qualified biologist immediately before the start of construction in each area each day. The surveys will involve a visual inspection of the entire immediate work area.	Caltrans	Construction
AMM-BIO-13: Protocol for Species Observation. If a special-status individual is detected within the project footprint or surrounding BSA, all work will cease immediately, and all onsite personnel will be notified of the location. At no time will construction work occur within 50 feet of the special-status individual without an approved biological monitor present. If relocation is permitted, the special-status individual will be relocated to suitable habitat outside the project footprint, if permitted by the appropriate agency with jurisdiction.	Caltrans/ Contractor	Construction
AMM-BIO-14: Invasive Species. To reduce the spread of invasive, non-native plant and aquatic species and minimize the potential decrease of palatable vegetation for wildlife species or impact native aquatic ecosystems, Caltrans would comply with Executive Order 13112. If noxious weeds are disturbed or removed during construction-related activities, the contractor would be required to contain the plant material associated with these noxious weeds and dispose of them in a manner that would not promote the spread of the species. This includes decontamination of equipment, materials,	Caltrans/ Contractor	Construction

Measure	Responsible Party	Timing
vehicles, and watercrafts. The contractor would be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance would be replanted with fast growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project footprint would be covered to the extent practicable with heavy black plastic solarization material until the end of the Project. If work occurs in sensitive and/or aquatic habitat, vehicles and equipment would be thoroughly cleaned before arriving on the Project site to prevent the spread of noxious weeds and invasive species from other locations. Temporarily disturbed areas would be restored to the maximum extent practicable. Exposed slopes and bare ground would be reseeded with native vegetation or other methods to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs and/or disturbance of jurisdictional riparian vegetation, native species would be replanted, based on the local species composition.		
AMM-WQ-1: Best Management Practices (BMPs). BMPs will be implemented to address the temporary water quality impacts resulting from the construction activities in the project. BMP's will include the measures of soil stabilization, sediment control, wind erosion control, tracking control, non-stormwater management, and waste management/materials pollution control. Because the project is near the waters, special protection such as linear sediment barriers or gravel bag berms would be needed to prevent sediments or construction materials from discharging into the storm drain and receiving waters, and temporary reinforced silt fence or high visibility fence may need to be placed at the perimeter of the work sites and along the edge of waters to prevent the contractor and equipment from working beyond the project site to the receiving waters. The details on the BMPs will be developed in the later PS&E phase.	Caltrans	Construction

Appendix D List of Technical Studies

The studies listed below support the environmental analyses and determinations made in this document. They are hereby incorporated by reference into this environmental document and can be requested by contacting the following person:

California Department of Transportation
Attn: Olalekan Ajayi, Environmental Scientist
P.O. Box 23660, MS:8B
Oakland, CA 94623-0660
Olalekan.Ajayi@dot.ca.gov
(510) 496-9970

Aquatic Resources Delineation Report (Wetlands), AECOM, January 2025

Community Impact Assessment, Caltrans, September 2025

Construction Air and Noise Analysis Memorandum, Caltrans, March 2025

Construction-Related Greenhouse Gas Emissions Analysis, Caltrans, March 2025

Energy Analysis Memorandum, Caltrans, March 2025

Environmentally Sensitive Habitat Areas Memorandum, AECOM, May 2025

Please note, many state and federal laws limit the disclosure of sensitive cultural and tribal resource information to the public. Additional information regarding confidentiality of these resources can be found in the SER Volume 2, Cultural Resources, in Section 3.4.13 and Section 5.3.6.

Section 106 Summary Memorandum, Caltrans, June 2025

Extended Phase I Study, Caltrans, May 2025

Historic Property Survey Report, Caltrans, TBD

Finding of Effect Report, Caltrans, TBD

Floodplain Encroachment Review, Caltrans, March 2025

Natural Environment Study, Caltrans, September 2025

Preliminary Geotechnical Report, Caltrans, May 2025

Visual Impact Assessment Memorandum, Caltrans, July 2025

Water Quality Study, Caltrans, September 2025

Appendix E References

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