State Route 1 Multi-Asset Roadway Rehabilitation Project

SAN MATEO COUNTY, CALIFORNIA
04-01-SM-PM 27.5/34.8
EA 04-0Q130 / Project ID 04-1800-0053

Initial Study with Negative Declaration

Prepared by the
State of California, Department of Transportation

October 2022

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General Information about this Document

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS) with Negative Declaration (ND) for the proposed Project in San Mateo County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This document explains 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 and minimization measures. The draft IS with proposed ND was circulated to the public for 30 days between July 8, 2022, and August 8, 2022. Comments received during this period are included in Appendix F. Elsewhere throughout this document, a vertical line in the margin indicates a change made since the draft document circulation. Minor editorial changes and clarifications have not been so indicated. Additional copies of this document and the related technical studies are available for review at 111 Grand Ave, Oakland, CA 94612.

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: Department of Transportation, District 4, Attention: John Seal, P.O. Box 23660 MS 8B, Oakland, CA 94623-0660; email John.Seal@dot.ca.gov; (510) 549-6091 (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. An Americans with Disabilities Act-compliant electronic copy of this document is available to download from the Caltrans District 4 environmental document website at https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs.

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State Clearinghouse Number: 2022070140
04-SM-01-27.5/34.8
EA No. 04-0Q130
Project No. 04-1800-0053

State Route 1 Multi-Asset Roadway Rehabilitation Project
(Post Miles SM-01 27.5/34.8)

Initial Study with Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agencies:
California Transportation Commission
San Mateo County
City of Half Moon Bay
California Coastal Commission
California Department of Fish and Wildlife

Date

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Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) is proposing the State Route (SR) 1 Multi-Asset Roadway Rehabilitation Project (Project) to rehabilitate existing pavement, improve existing traffic facilities, install Complete Streets elements, and install traffic operations system elements along SR 1 in San Mateo County, California. The Project also proposes to install traffic operation system elements at two locations on SR 92 in San Mateo County, California. The Project would include rehabilitating pavement; replacing existing drainage inlets, culverts, and dikes; replacing existing guardrails with Midwest guardrail systems; replacing existing crash cushions; upgrading curb ramps; implementing Complete Streets elements; upgrading signal poles; installing conduits; installing traffic operation system elements (intersection cameras, closed-circuit television cameras, and traffic monitoring stations); and relocating and/or replacing utility cabinets.

Determination

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

- The Project would have no effect on agriculture and forestry, air quality, cultural resources, mineral resources, noise, population and housing, public services, recreation, tribal cultural resources, and utilities and service systems.

- With standard Caltrans conservation measures and Project-specific avoidance and minimization measures the Project would have less-than-significant effects to aesthetics and biological resources, including wetlands and waters, riparian habitats, California red-legged frog, San Francisco garter snake, steelhead, Coho salmon, and Ornduff's meadowfoam. The Project would have a less-than-significant impact on energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, transportation, and wildfire.

_____ _____

Melanie Brent
Deputy District Director
Environmental Planning and Engineering
California Department of Transportation, District 4

Date of Approval

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Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
ADL	Aerially Deposited Lead
APE	Area of Potential Effects
ARB	California Air Resources Board
BAAQMD	Bay Area Air Quality Management District
Basin Plan	San Francisco Regional Water Quality Control Board's water quality control plan
BMP	best management practice
BSA	Biological Study Area
CAFÉ	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CAPTI	*California Action Plan for Transportation Infrastructure*
CCA	California Coastal Act of 1976
CCAG	City and County Association of Governments of San Mateo County
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH_4	methane
CHP	California Highway Patrol
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRPR	California Rare Plant Rank
CSO	Cultural Studies Office
CTP	California Transportation Plan
dB	decibels
DOC	California Department of Conservation
DPS	distinct population segment

EFH	Essential Fish Habitat
EO	Executive Order
EOP	Emergency Operations Plan
ESA	environmentally sensitive area
ESU	Evolutionarily Significant Unit
FC	federal candidate
FD	Federally Delisted
FE	federal endangered
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHWA	Federal Highway Administration
FR	Federal Register
FT	federally threatened
GHG	greenhouse gas
GO	Goal and Objective
GWP	global warming potential
H&SC	Health and Safety Code
HFC	hydrofluorocarbon
ICBO	International Conference of Building Officials
IS	Initial Study
LCFS	low carbon fuel standard
LCLUP	Local Coastal Land Use Plan
LCP	local coastal program
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MTC	Metropolitan Transportation Commission
NAHC	Native American Heritage Commission
ND	Negative Declaration
N_2O	nitrous oxide
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OPC	Ocean Protection Council
OPR	California Governor’s Office of Planning and Research
OCRS	Caltrans Office of Cultural Resources
PAED	Project Approval and Environmental Document
PDT	Project Development Team
PM	post mile
ppt	parts per thousand
PQS	Professionally Qualified Staff
PRC	Public Resources Code

Project	State Route 1 Multi-Asset Roadway Rehabilitation Project
PS and E	Plans, Specifications, and Estimates
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SamTrans	San Mateo County Transit District
SB	Senate Bill
SC	state candidate
SCS	Sustainable Communities Strategy
SD	State Delisted
SE	state endangered
SMLCP	San Mateo Local Coastal Program
SR	State Route
SSC	= state species of special concern
ST	state threatened
SWPPP	stormwater pollution prevention plan
TAC	Transportation Analysis Under CEQA
TMP	traffic management plan
TOS	traffic operations system
USC	United States Code
U.S. DOT	United States Department of Transportation
U.S. EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	vehicle miles traveled
WPCP	water pollution control plan

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Chapter 1 Proposed Project

1.1 California Environmental Quality Act Lead Agency Status

The State Route (SR) 1 Multi-Asset Roadway Rehabilitation Project (Project) is subject to state environmental review requirements. Project documentation has been prepared in compliance with the California Environmental Quality Act (CEQA). The California Department of Transportation (Caltrans) is the lead agency under CEQA and sponsor for the Project, and has prepared this draft Initial Study (IS) and Negative Declaration (ND) for the Project.

1.2 Introduction

Caltrans is proposing the Project to rehabilitate existing pavement, improve existing traffic facilities, install Complete Streets elements ("Complete Streets" is a Caltrans policy directive intended to provide safe mobility for all users, including bicyclists and pedestrians; see Section 1.3.2), and install traffic operations system (TOS) elements along SR 1 in San Mateo County, California. The Project would include rehabilitating pavement; replacing existing drainage inlets, culverts, and dikes; replacing existing guardrails with Midwest guardrail systems; replacing existing crash cushions; upgrading curb ramps; implementing Complete Streets elements; upgrading signal poles; installing conduits; installing traffic operation system elements (intersection cameras, closed-circuit television cameras, and traffic monitoring stations); and relocating and/or replacing utility cabinets.

1.3 Purpose and Need

1.3.1 Purpose

The Project would preserve and extend the life of the roadway to a condition that would require minimal maintenance expenditures, improve the ride quality, upgrade drainage systems, improve roadway safety, enhance pedestrian and bicycle access, and upgrade the traffic system infrastructure.

1.3.2 Need

The pavement on SR 1 in the Project area was evaluated in 2016 and is in poor condition overall (Caltrans 2016). Caltrans uses the International Roughness Index to evaluate and determine how smooth or rough a pavement surface is. The Federal Highway Administration (FHWA) International Roughness Index threshold for acceptable pavement surface is between 170 and 96, the threshold for good road surface is 95 or less, and surfaces that are greater than 170 do not meet the acceptable threshold. The stretch of Project highway pavement surface ranges from 100 to 226. If left untreated, this portion of SR 1 will continue to provide poor ride quality to users and will require frequent, expensive maintenance. Portions of the highway are near the acceptable roughness threshold, but continued pavement degradation is expected over time. In addition, existing highway elements and facilities in the Project area are worn out or functionally obsolete and need to be replaced. The current traffic systems (e.g., guard rails, crash cushions, and drainage) are approaching the ends of functional life and need to be upgraded.

"Complete Streets" is a Caltrans policy directive intended to provide safe mobility for all users, including bicyclists and pedestrians, and is a consideration during Project development. According to Director's Policy 37, signed on December 7, 2021, it is Caltrans' organizational

priority to encourage and maximize walking, bicycling, 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 (Caltrans 2021g). Therefore, the need to consider Complete Streets elements (e.g., curb ramps, sidewalks, and cross walks) is included in the Project design.

1.4 Project Description

This section describes how the Project would be developed to meet its purpose and need while avoiding or minimizing adverse environmental impacts. Two alternatives have been identified: the Build Alternative and the No-Build Alternative. The No-Build Alternative would not meet the Project's purpose and need. Project elements are described next, and a mapbook summarizing all Project elements at their various locations is provided in Appendix A.

1.4.1 Project Location

The Project area is in and north of Half Moon Bay in San Mateo County, California. The Project area is on SR 1 between post mile (PM) 27.5 (SR 1 at Marine Boulevard) and PM 34.8 (SR 1 at Wavecrest Road); and SR 92 at PM 0.2 (at Main Street) (Figure 1-1).

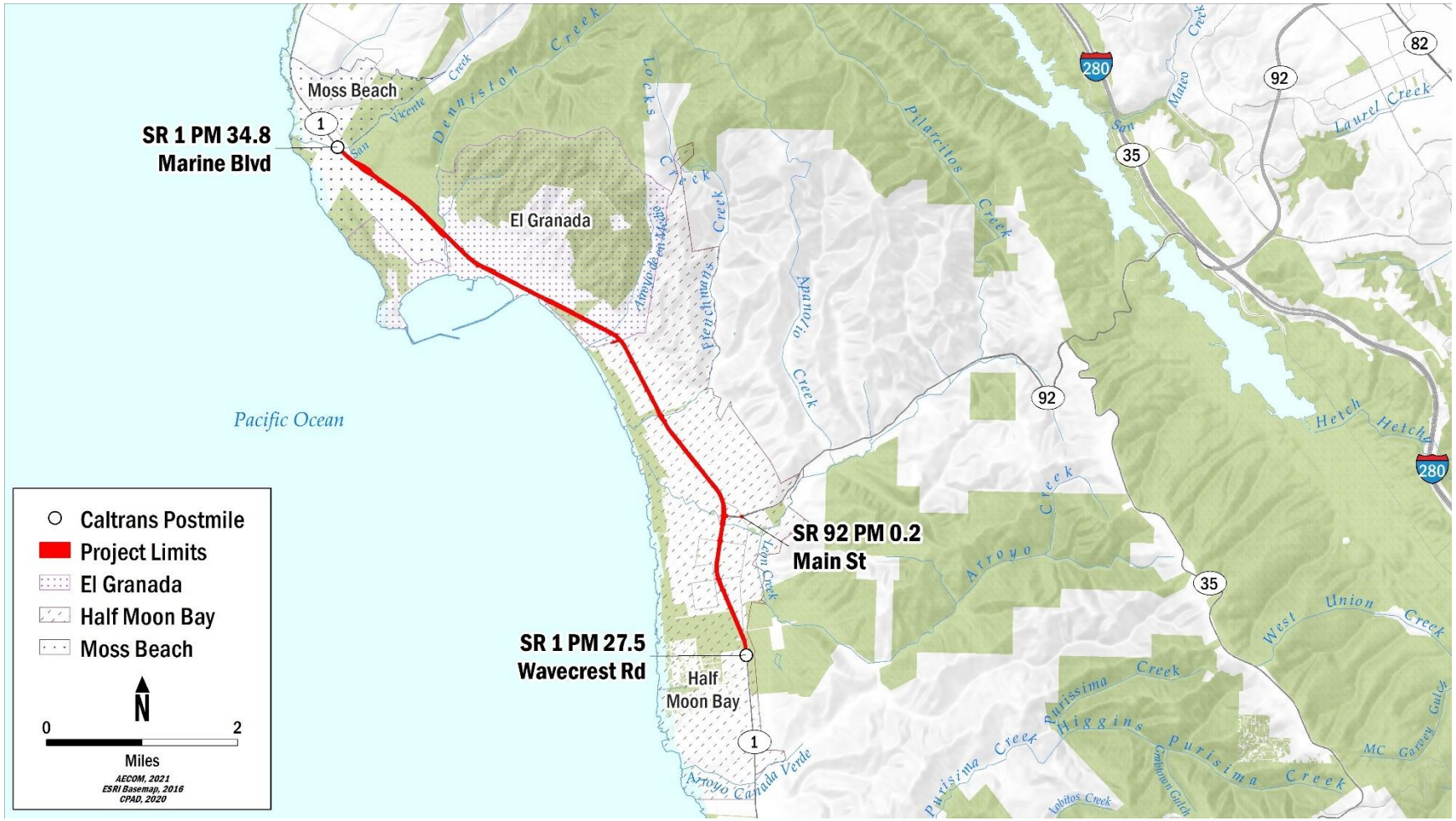

Figure 1-1 Project Vicinity

1.4.2 Roadway Rehabilitation

Caltrans is proposing a 20-year flexible rehabilitation pavement strategy to address poor pavement conditions. To rehabilitate the roadway, Caltrans would cold plane (mill the roadway surface down to design depths to restore and smooth the roadway conditions) 0.40 foot of existing asphalt concrete pavement, and then replace it with a structural section composed of 0.20 foot of gap-graded rubberized hot mix asphalt, 0.25 foot of hot mix asphalt, a geosynthetic pavement interlayer, and 0.10 foot of hot mix asphalt. The roadway profile would be raised by about 0.15 foot at Project completion. Pavement rehabilitation would occur across the entire Project location. This generally is shown on Figure 1-2, with detailed paving limits provided in Appendix A.

SR 1 within the Project limits is a two-lane undivided highway with two 12-foot lanes and 1-to 4-foot typical outside shoulders. The proposed roadway rehabilitation would not alter the existing roadway alignment.

1.4.3 Guardrail Replacement

All guardrails on SR 1 in the Project area would be removed and replaced with standard Midwest guardrail systems (Figure 1-2). Vegetation removal may be required to access guardrails, and excavation would be necessary during construction. Wooden support posts would be installed in drilled holes to an approximate depth of 4 feet below ground surface, and deeper holes may be recommended to address traffic safety standards at specific locations.

1.4.4 Crash Cushions Replacement

Nonstandard or damaged crash cushions in the Project area would be replaced at the same locations with new crash cushions, meeting current Caltrans standards for design and safety.

1.4.5 Signal Pole Upgrade

All nonstandard poles in the Project area would be replaced. The size of the poles would be determined during the Project's final design phase. Excavation would be required during replacement.

1.4.6 Conduits and Traffic Operation System Elements Installation

The proposed TOS elements are needed because SR 1, through the Project area, lacks traffic monitoring systems that can be used to collect data on traffic flow and volumes. These data can be used to inform future planning decisions and projects in San Mateo County. Overall, Caltrans anticipates that inclusion of TOS elements into this Project would improve traffic congestion along the corridor by helping to identify future transportation needs and deficiencies.

Caltrans proposes to upgrade and install new communication devices, such as closed-circuit television cameras, fixed intersection cameras, and traffic monitoring systems. Figure 1-3 through Figure 1-5 show the proposed locations for these TOS elements. New conduit installation to support these elements would require trenching during installation. Excavation limits would be determined by conduit size and location.

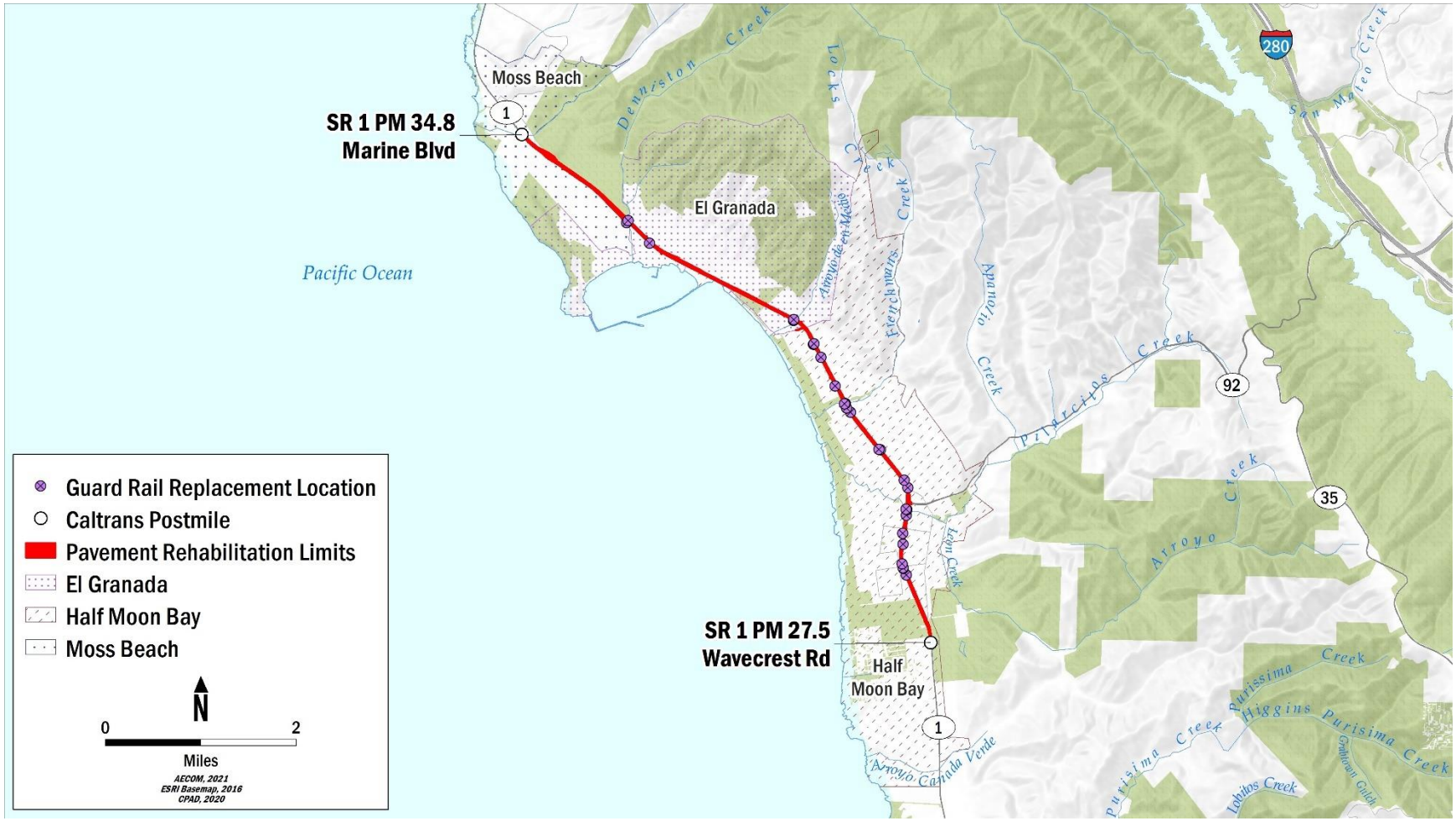

Figure 1-2 Roadway Rehabilitation and Guard Rail Replacement Locations

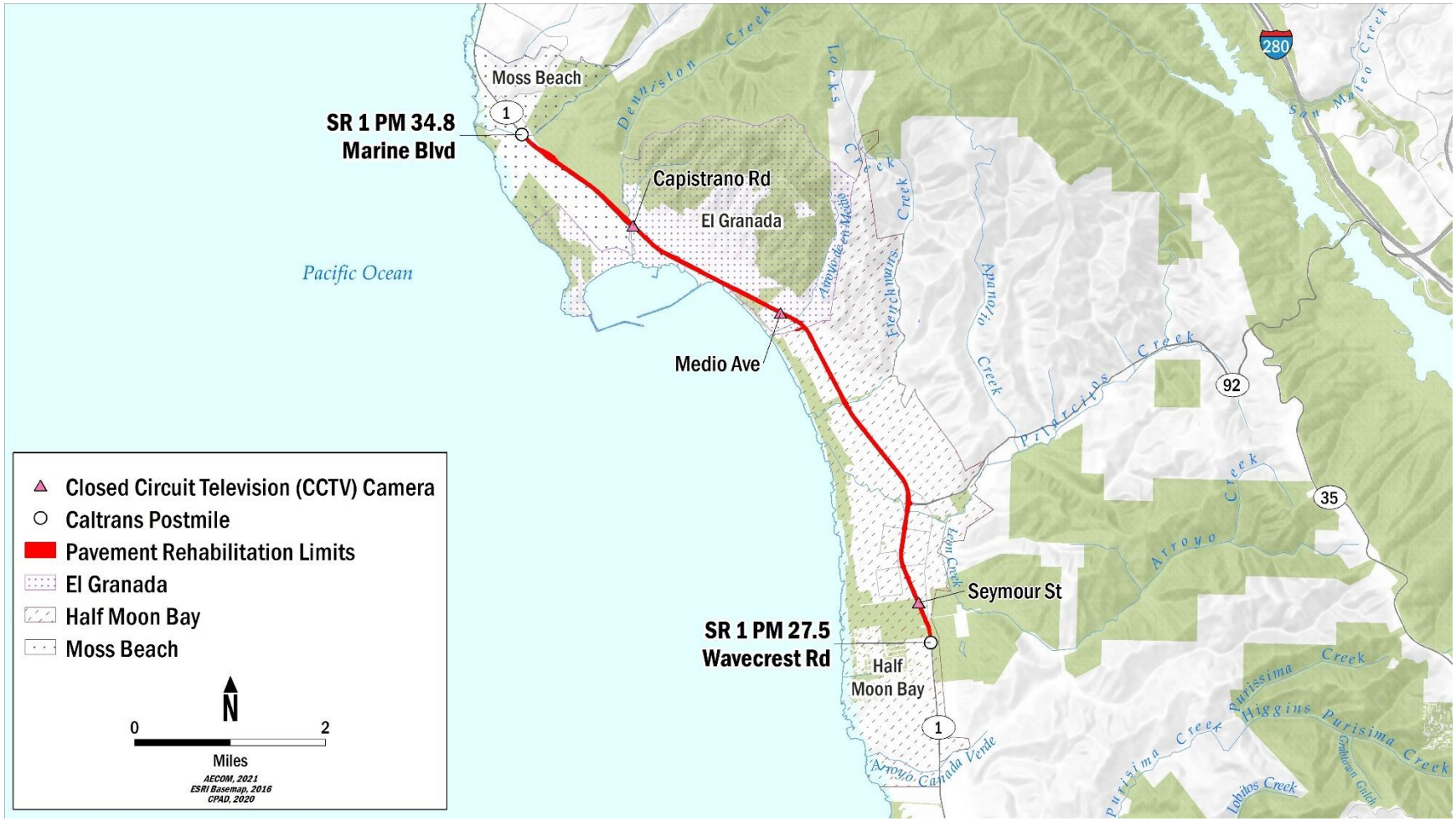

Figure 1-3 Closed Caption Television Camera Locations

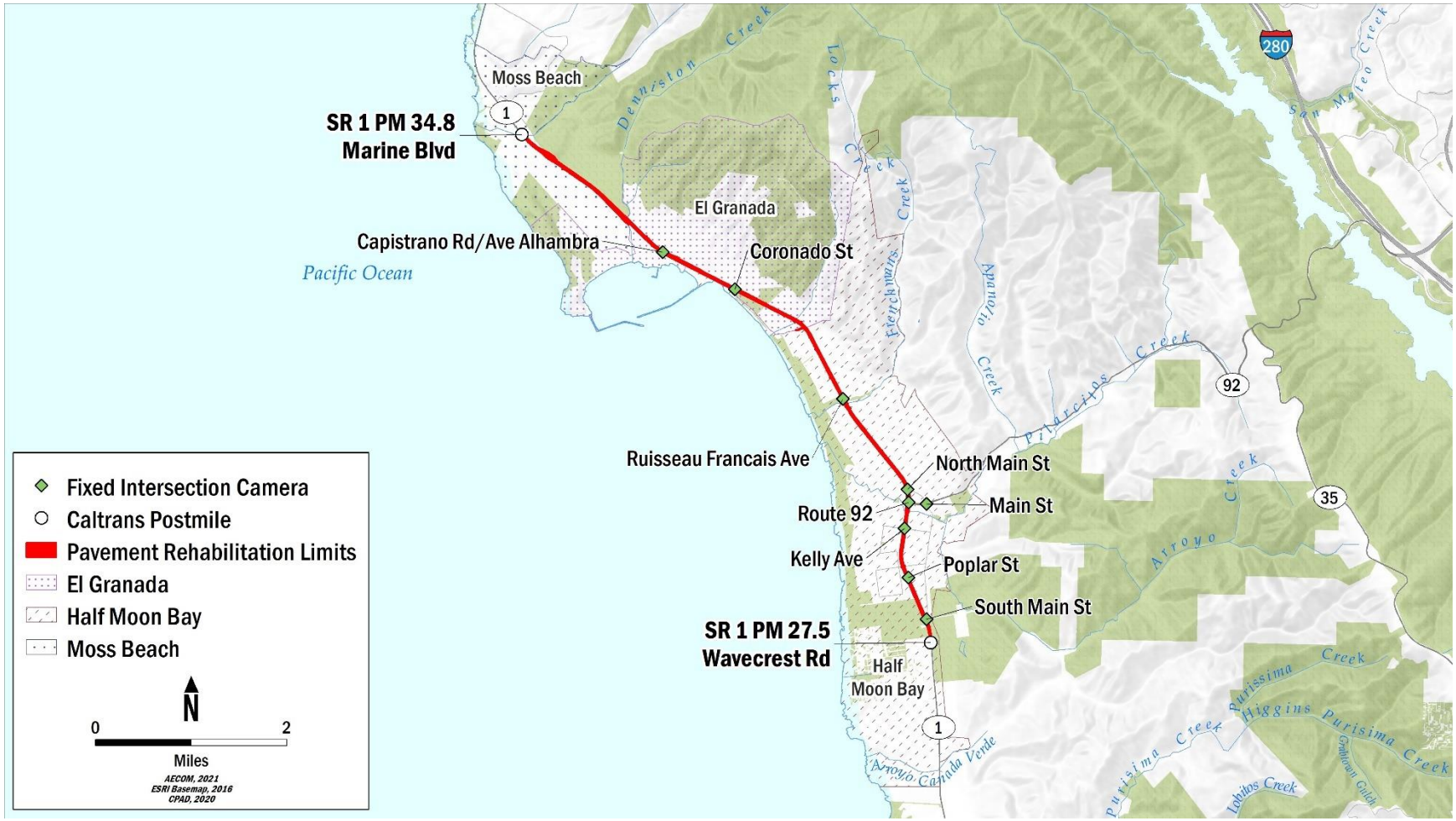

Figure 1-4 Fixed Intersection Camera Locations

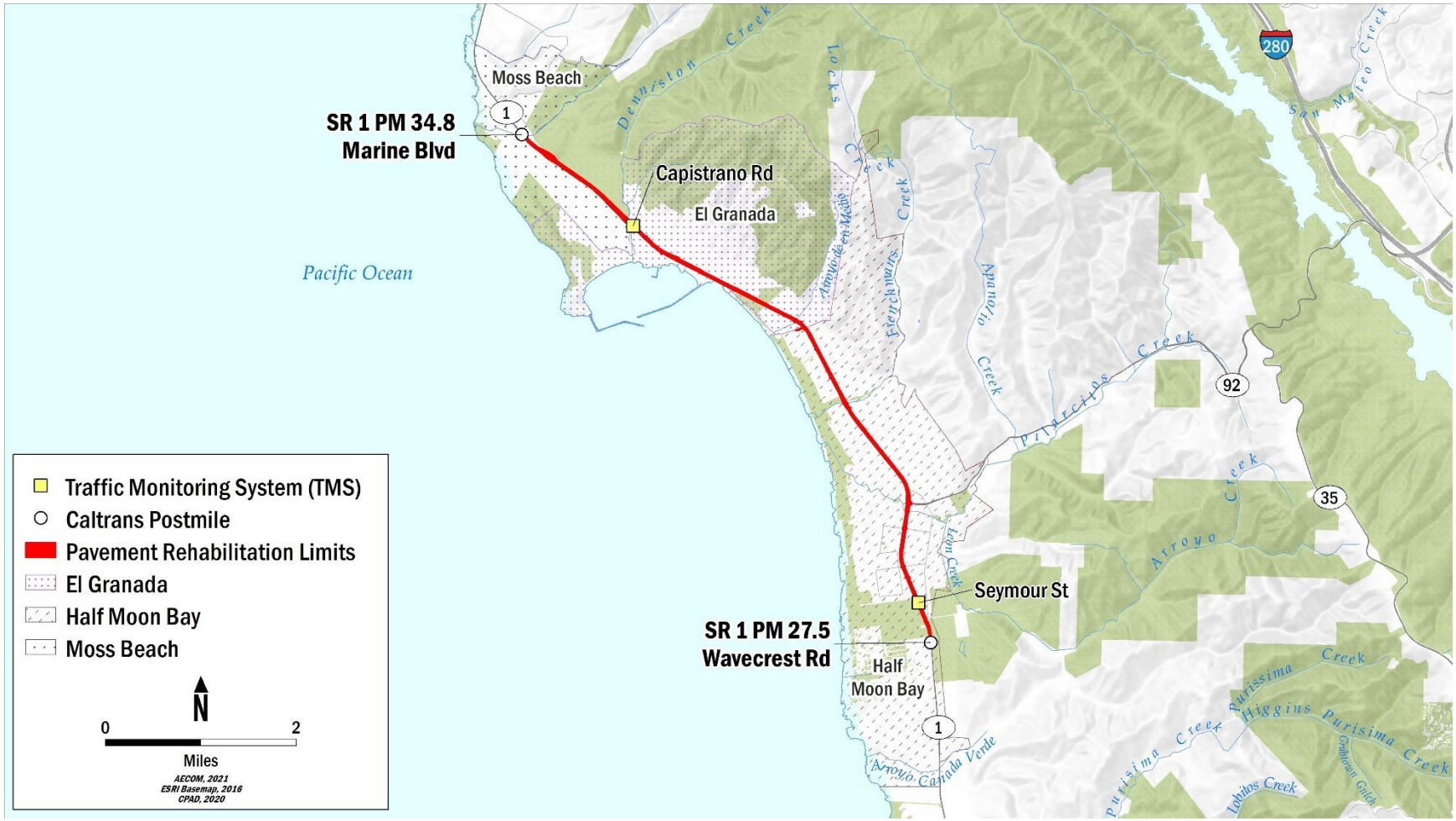

Figure 1-5 Traffic Management System Locations

1.4.7 Drainage Inlet, Culvert, and Dike Replacement

Caltrans' hydraulic engineers have conducted a preliminary review of existing drainage elements and anticipate the following work:

- Replacement of 12-inch-diameter pipes with 18-inch-diameter pipes
- Replacement of a headwall and 20-foot-long pipe for a 72-inch-diameter reinforced concrete pipe at PM 31.31
- Addition or replacement of flared end sections at ends of pipes as needed
- Lining the inside of 24-inch, 36-inch, and 60-inch pipes as needed
- Cleaning and clearing buried pipe ends to maintain flow pattern
- Repairing or replacing damaged headwalls to improve flow into culverts
- Regrading certain unlined ditches to maintain original flow pattern
- Cleaning existing drainage facilities

Excavation would be required during culvert replacement work. Typical culvert replacement work would require an excavation width that would be 2 feet wider than the culvert (1 foot on each side); the excavation depth would be same as the depth of the existing culvert; and the excavation length would be about 2 feet longer than the existing culvert. Where culvert headwall installations are required, it would increase the length of excavation by a few feet, depending on final headwall design. Caltrans is completing survey work to refine its understanding of existing drainage elements. Figure 1-6 summarizes general locations, and details of the drainage improvements are provided in Appendix A.

1.4.8 Curb Ramp Upgrade

All nonstandard curb ramps in the Project area would be replaced with curb ramps that meet current Caltrans standards and would be compliant with Americans with Disabilities Act (ADA) requirements. The type and design of curb ramps would be determined based on location-specific conditions during the Project's final design phase. Excavation for curb ramps would be necessary during construction.

1.4.9 Complete Streets

Sidewalks, curb ramps, and markings would be constructed throughout the Project area to provide access for pedestrians and cyclists. Locations where Complete Streets elements are proposed are shown on Figure 1-7, and details are provided in Appendix A. The following street elements would be included as part of the Project:

- Class II bike lanes with striped buffers would be created on SR 1 in the Project area.
- Intersection improvements would occur, as follows:
    - In general, curve radii would be minimized, and curb extensions would be provided where curb ramp work is proposed to meet ADA requirements.
    - Crosswalks would be striped where the Class I path crosses Seymour Street, Grove Street, Filbert Street, Belleville Boulevard, Grand Boulevard, Kehoe Avenue, Frontage Road, Venice Boulevard, Frenchman's Creek Road, Young Avenue, and Alto Avenue. Caltrans would consider reducing corner radius, and curb ramps and/or path entrances would be squared up at these locations as feasible.

  - A fourth crosswalk would be installed across SR 1 at the Kelly Avenue intersection's northern leg. Caltrans would consider changes to the right-turn slip lanes that exit from and enter northbound SR 1, if feasible, during the final design phase of the Project.

  - The new sidewalk would be squared up on the eastern side of SR 1 and the SR 1/ SR 92 intersection. Crosswalks would be installed on all four legs.

  - Caltrans would consider changes to the slip lane at the SR 1/SR 92 intersection to accommodate pedestrian and bicycle crossing, or rectangular rapid flashing beacon and high-visibility crosswalks during the final Project design phase, if they are feasible.

  - A third crosswalk would be installed at the southern leg of the SR 1/Coronado Street intersection, to minimize crossings to the nearby school. The sidewalk on the western side of SR 1 would be connected to the southwestern corner, to connect with the new crosswalk, and/or a direct connection would be made to the nearby Class I path from the new south leg crosswalk.

  - New crosswalks would be squared up with and installed on all four legs of the SR 1/Capistrano Road intersection.

  - Caltrans would incorporate flush and raised median treatments in its final design, where possible.

- If the culvert is replaced at Arroyo de en Medio, the design would bring the shoulders up to current design standards.

- Transit stops would be paved, and new sidewalks would be connected along SR 1.

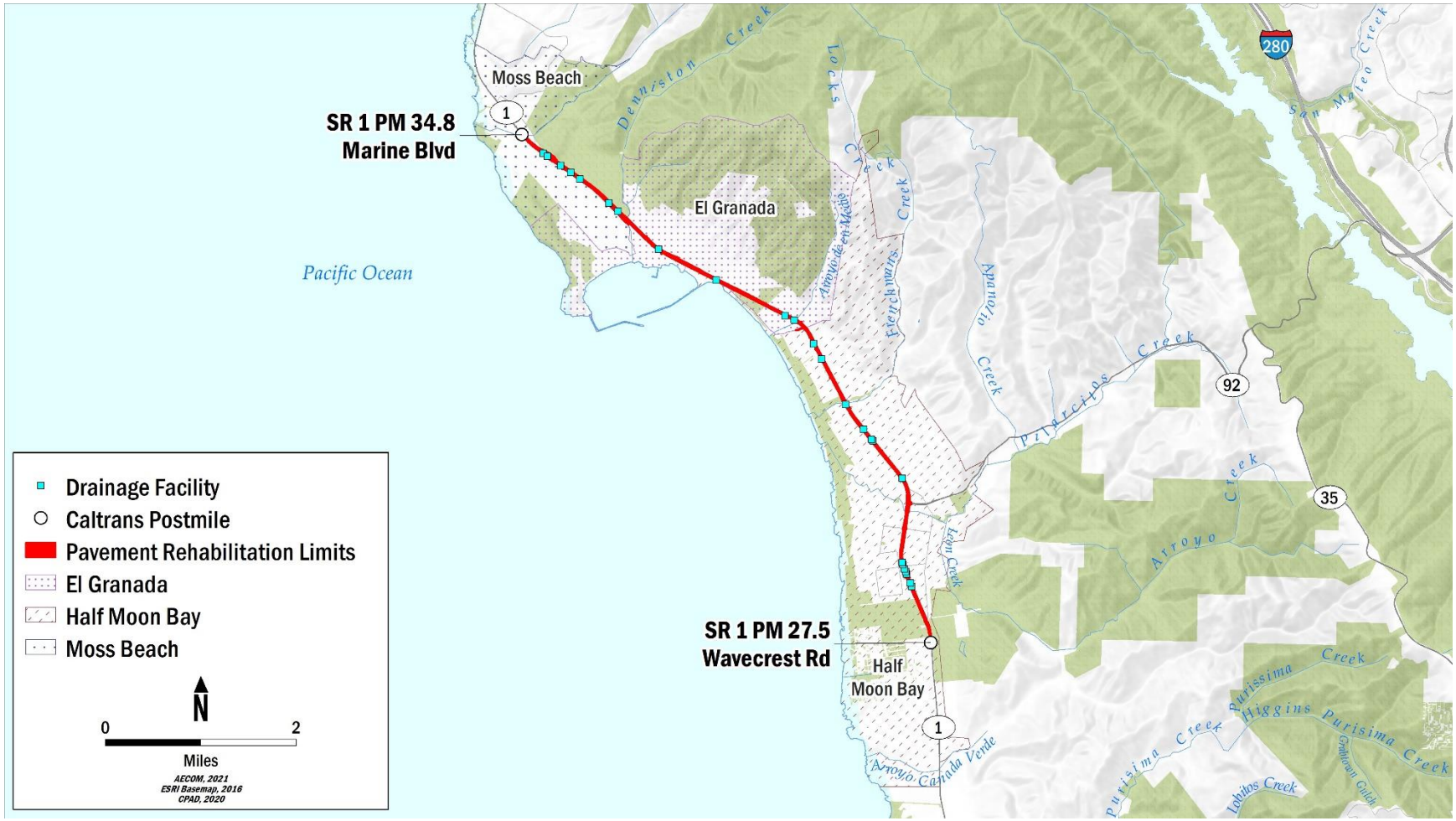

Figure 1-6 Drainage System Improvement Locations

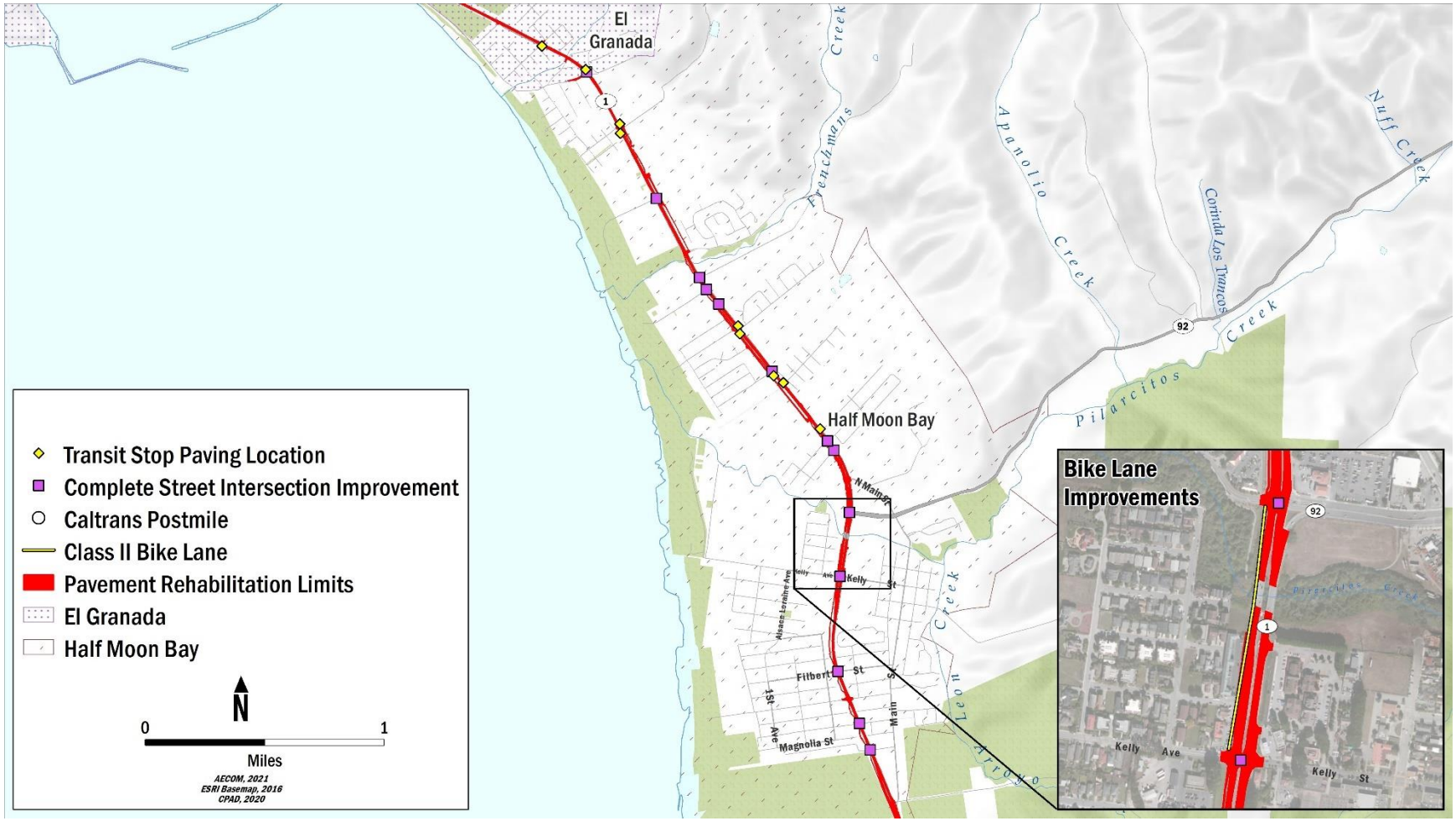

Figure 1-7 Bicycle, Pedestrian, and Complete Streets Improvement Locations

1.4.9.1 Coordination with Local Transportation Plans, and Pedestrian Crossings on SR 1 at Surfer's Beach

Coordination with San Mateo County would occur to complete the medium to long-term improvements that are proposed in the Caltrans-funded SR 1 Safety and Mobility Improvement Studies (http://planning.smcgov.org/highway-1-safety-and-mobility-study) and the County of San Mateo's Connect the Coastside, San Mateo County Midcoast Comprehensive Transportation Management Plan, Final Draft October 2021 (hereafter referred to as Connect the Coastside Plan), available online at: https://planning.smcgov.org/connect-coastside (San Mateo County 2021). At a meeting held in July 2022, the San Mateo County Board of Supervisors adopted the Connect the Coastside Plan. Caltrans will continue to coordinate with the County of San Mateo and local stakeholders on pedestrian crossings on SR 1 at Surfer's Beach in the community of El Granada, as recommended in the Connect the Coastside Plan (see Connect the Coastside Plan, Map 14: Recommended Infrastructure Improvements El Granada, Page 109; https://planning.smcgov.org/sites/planning.smcgov.org/files/Connect%20the%20Coastside%20Final%20Draft_Oct%202021.pdf [San Mateo County 2021]).

1.4.10 Utility Relocation

Existing utilities may need to be relocated during construction. Specific utilities that would need relocation would be determined during the Project's final design phase. Some utilities may require vegetation clearance and excavation during construction.

1.4.11 Construction Staging

Caltrans would locate staging for construction within its right-of-way, outside environmentally sensitive areas (ESAs). At all staging locations, appropriate measures would be implemented to avoid and minimize impacts on environmental resources to the greatest extent feasible. Staging locations would be determined during the Project's final design phase.

1.4.12 Project Schedule

The Project currently is in the conceptual phase, during which Caltrans is refining its conceptual design and completing the environmental review under CEQA. Table 1-1 summarizes the major Project delivery milestones and their targeted delivery dates.

Table 1-1 Proposed Project Schedule

Project Milestone	Milestone Description	Target Date
Draft Environmental Document Completion	Draft Environmental Document to be circulated for public review and comment	July 2022
Project Approval and Environmental Document Completion	Final Project Approval and Environmental Document to be filed with the State Clearinghouse	October 2022
Ready to List Date	Final design plans, specifications, bid estimates, and environmental permitting to be completed	April 2024
Contract Approval	Construction to start	October 2024
Contract Acceptance	Construction to be completed	October 2026

1.4.13 Project Funding

The Project is eligible for federal-aid funding. It is funded by the State Highway Operation and Protection Program for fiscal year 2023/2024. The total Project cost estimate is $45,971,000, which includes both capital costs and capital outlay support costs.

1.5 Alternatives

The Build Alternative described in Section 1.4 is the only alternative considered in this analysis that meets the Project's purpose and need.

The No-Build Alternative would not rehabilitate the existing pavement. The No-Build Alternative would not meet the Project purpose and need because the condition of the pavement and highway appurtenances would continue to deteriorate and would require frequent maintenance and extensive repairs. In addition, the No-Build Alternative eventually would result in greater expense and necessitate major reconstruction. The No-Build Alternative is considered here as a baseline condition to the proposed alternative.

1.5.1 Identification of a Preferred Alternative

Once the public circulation period concluded, formal comments from the public and reviewing agencies were considered, and the Project Development Team (PDT) identified a preferred alternative.

Caltrans received no new substantive information leading to the identification of new alternatives that meet the scope, need, and purpose of the Project; and no new environmental impacts or environmental impacts more severe than those disclosed in the IS were identified during the public review and comment period (see Appendix F for public comments and Caltrans' responses). Additionally, Caltrans did not receive any new information to substantially change Caltrans' environmental commitments record for the Project (Appendix C). Accordingly, on August 29, 2022, the PDT identified the Build Alternative as the Preferred Alternative.

The Build Alternative was identified as the preferred alternative because it:

- meets the Project's purpose and need;
- would reduce expenditure of state resources over the long term by substantially reducing long-term maintenance efforts; and
- would improve facility conditions and reduce safety risks to users and the owners of adjacent properties.

The No-Build Alternative was not identified as the preferred alternative because it:

- does not meet the Project's purpose;
- would require a greater amount of state resources to be expended over the long-term for facility maintenance; and
- would have resulted in continued degradation of facility conditions and increased risks to users.

1.6 Alternatives Considered but Eliminated from Further Discussion Prior to the Draft Initial Study

A variant of the Project's pavement rehabilitation strategy considered a 40-year flexible rehabilitation pavement strategy that would install a new structural section to replace the existing road layers instead of cold plaining and rehabilitating the existing roadway. However, this pavement rehabilitation strategy variant would result in a substantially greater disturbed soil area because the total thickness of the existing structural layers would be less than that of those proposed at most locations. Because of the high risk of increased impacts and mitigation for a larger soil disturbance area, and a higher combined total Project cost, this pavement rehabilitation strategy was eliminated from consideration.

A variant of the Build Alternative that included variable message signs placed at four locations on SR 1 and at one location on SR 92 was considered in the Project's conceptual design. The variable message signs were removed from the Project's design and consideration in the Build Alternative. Removal of these elements was based on preliminary feedback to Caltrans from local community stakeholder groups and input from regulatory agency partners on this element.

1.7 Project Features

The Project would include standard features that are part of most Caltrans projects, in accordance with standard specifications, state and federal laws, and anticipated standard environmental permit conditions; they have not been developed in response to any specific potential Project environmental impact. Project features are distinguished from avoidance and minimization measures that directly relate to potential Project-related impacts. Project-specific avoidance and minimization measures are discussed in Chapter 2 for each environmental resource analyzed. Table 1-2 summarizes standard features applicable to the Project.

Table 1-2 Project Features

Resource	Feature	Description
Aesthetics/Visual	PF-VIS-01	**Limit Visual Impacts during Construction.** The California Department of Transportation (Caltrans) would implement the following measures to the greatest extent feasible during construction: • Tree and shrub removal will be avoided. • Trees and shrubs outside of clearing and grubbing limits will be protected from the contractor's operations, equipment, and materials storage. • All disturbed ground surfaces will be restored and treated with erosion control, including native, locally appropriate seed. • During construction operations, unsightly material and equipment in staging areas will be placed where they are less visible and/or covered where possible. • Construction activities will limit all construction lighting to within the area of work and use directional lighting, shielding, and other measures as needed to avoid light trespass in residential areas.

Resource	Feature	Description
Air Quality	PF- AQ-01	**Control Measures for Construction Emissions of Fugitive Dust.** Dust control measures would be implemented to minimize airborne dust and soil particles generated from graded areas. For disturbed soil areas, the use of an organic tackifier to control dust emissions would be included in the construction contract. Watering guidelines would be established by the contractor and approved by the Caltrans resident engineer. Any material stockpiles would be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion.
Air Quality	PF-AQ-02	**Air Pollution Control.** Caltrans Standard Specifications Section 14-9.02, Air Pollution Control, requires contractors to follow all air pollution control rules, regulations, ordinances, and statutes.
Air Quality	PF-AQ-03	**Emissions Reduction**. Caltrans Standard Specifications Section 7 1.02A and 7 1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the Project and to certify they are aware of and would comply with all California Air Resources Board (ARB) emission reduction regulations.
Biological	PF-BIO-01	**Worker Environmental Awareness Training.** Construction personnel will attend a mandatory environmental education program delivered by the United States Fish and Wildlife Service (USFWS)-Approved Biological Monitor prior to taking part in site construction, including fence installation and other ground-disturbing and/or vegetation clearing activities. The program will focus on the conservation measures that are relevant to an employee's personal responsibility and will include an explanation of how to best avoid take of listed species. At a minimum, the training will include a description of the listed species that may occur on site; how they might be encountered in the Project construction zone; their status and protection; and the relevant Conservation Measures and Terms and Conditions of the Biological Opinion. A fact sheet conveying this information will be prepared and distributed to all construction and Project personnel. Distributed materials will include cards with distinctive photographs of the species, compliance reminders, and relevant contact information. Documentation of the training, including sign-in sheets, will be kept on file and made available to the USFWS on request.

Resource	Feature	Description
Biological	PF-BIO-02	**Environmentally Sensitive Area (ESA) Fencing.** Before the start of construction, ESAs (defined as areas containing sensitive habitats adjacent to or in construction work areas for which physical disturbance is not allowed) will be clearly delineated using temporary high-visibility fencing or temporary reinforced silt fences with high-visibility fabric on top (Type 1). Construction work areas will include the active construction site and all areas providing support for the Project, including areas used for vehicle parking; equipment and material storage and staging; and access roads. The fencing will remain in place throughout the duration of construction activities, be inspected regularly, and be fully maintained at all times. The final Project plans will show all locations where the fencing will be installed and will provide installation specifications. The bid solicitation package special provisions will clearly describe acceptable fencing material and prohibited construction-related activities, including vehicle operation; material and equipment storage; access roads; and other surface-disturbing activities in ESAs.
Biological	PF-BIO-03	**Inclement Weather Restriction**. No work will occur during or within 24 hours following a rain event exceeding 0.2 inch, as forecast by the National Oceanic and Atmospheric Administration National Weather Service for Half Moon Bay, California (C3295) base station. USFWS/ California Department of Fish and Wildlife (CDFW) approval to continue work during or within 24 hours of a rain event will be considered on a case-by-case basis.
Biological	PF-BIO-04	**Light Restrictions**. Construction personnel will turn portable tower lights on no more than 30 minutes before the beginning of civil twilight, and off no more than 30 minutes after the end of civil sunrise. Portable tower lights will have directional shields attached to them, and personnel will only direct lights downward and toward active construction and staging areas. Lighting per portable tower light will not exceed 2,000 lumens. To the extent practicable, personnel will only use enough coverage to light the work areas.
Biological	PF-BIO-05	**Staging**. Staging and parking areas will be restricted to designated areas, as specified by the Project biologist in coordination with the Project engineer.
Biological	PF-BIO-06	**Soil Storage.** Imported soil or native topsoil may be stored in a designated location, as specified by the Project biologist in coordination with the Project engineer, until Project completion.
Biological	PF-BIO-07	**Vegetation Removal.** Vegetation removal will be limited to the designated work areas needed for access and workspace. Where possible, vegetation removal in temporary work areas will be cut above soil level to promote revegetative growth of established plants following construction.

Resource	Feature	Description
Biological	PF-BIO-08	**Replant, Reseed, and Restore Disturbed Areas.** Caltrans will restore temporarily disturbed areas to their preconstruction contours and functions to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native, local grasses and shrubs to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, coordination with the appropriate permitting agency will be warranted, and planting may be required. A local hydroseed mix will be proposed in the plans, specifications, and estimates phase.
Biological	PF-BIO-09	**Migratory Bird Treaty Act.** To minimize and avoid take of migratory birds, their nests, and their young, Caltrans will conduct vegetation and tree trimming from October 1 through January 31—before Project construction—when possible. This work will be limited to vegetation and trees that are within the Project footprint. No grubbing or other ground-disturbing work will occur at this time. Upon completion of vegetation and tree trimming, Caltrans will install stormwater and erosion control best management practices (BMPs). During the nesting season (February 15 through September 30), a qualified biologist with appropriate construction and species experience will conduct nest and bird surveys and other wildlife surveys prior to tree removal and applicable pruning. All work will be conducted under a Regional Water Quality Control Board (RWQCB)-approved Water Pollution Control Plan or Storm Water Pollution Protection Plan. During the nesting season, pre-construction surveys for nesting birds will be conducted by a qualified biologist no more than 72 hours prior to the start of construction activities. If work is to occur within 300 feet of active raptor nests or 50 feet of active other migratory/nongame bird nests, a nondisturbance buffer will be established at a distance sufficient to minimize disturbance, based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. All clearing and grubbing of woody vegetation will be performed by hand or using light construction equipment, such as backhoes and excavators.
Biological	PF-BIO-10	**Invasive Species Management.** To reduce the spread of invasive nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. The purpose of this order is to prevent the introduction of invasive species and provide for their control to minimize economic, ecological, and human health impacts. In the event that high- or medium-priority noxious weeds, as defined by the California Department of Food and Agriculture or the California Invasive Plant Council, are disturbed or removed during construction-related activities, the contractor will contain the plant material associated with these noxious weeds and will dispose of it in a manner that will not promote the spread of the

Resource	Feature	Description
		species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. If seeding is not possible, the area will be covered to the extent practicable with heavy black plastic solarization material until completion of construction. All earthmoving equipment, as well as seeding equipment to be used during Project construction, would be thoroughly cleaned before arriving on the Project site.
Biological	PF-BIO-11	**Implementation of Water Quality/Erosion Control BMPs.** Erosion control BMPs will be developed and implemented to minimize any wind- or water-related erosion, in compliance with the requirements of the RWQCB. Protective measures will include, at a minimum, the following: a. No discharge of pollutants from vehicle and equipment cleaning will be allowed into any storm drains or watercourses. b. Vehicle and equipment fueling and maintenance operations will be kept at least 50 feet away from watercourses, except at established commercial gas stations or established vehicle maintenance facilities. c. Concrete wastes will be collected in washouts, and water from curing operations will be collected and disposed. Neither will be allowed into watercourses. d. Spill containment kits will be maintained on site at all times during construction operations and/ or staging or fueling of equipment. e. Dust control measures will include use of water trucks and dust palliatives to control dust in excavation-and-fill areas; covering temporary access road entrances and exits with rock (rocking); and covering temporary stockpiles when weather conditions require. f. Coir rolls or straw wattles that do not contain plastic or synthetic monofilament netting will be installed along or at the base of slopes during construction to capture sediment. g. Graded areas will be protected from erosion using a combination of silt fences and fiber rolls along toes of slopes or along edges of designated staging areas; erosion control netting (e.g., jute or coir) will be used as appropriate on sloped areas. Erosion control materials that use plastic or synthetic monofilament netting will not be used in the Project footprint. This will include products that use photodegradable or biodegradable synthetic netting, which can take several months to decompose. Acceptable materials will include natural fibers, such as jute, coconut, or twine.

Resource	Feature	Description
Biological	PF-BIO-12	**Construction Site BMPs.** The following site restrictions will be implemented to avoid or minimize impacts on special-status species and their habitats: a. Routes and boundaries of roadwork will be clearly marked before the start of construction or grading. b. All food and food-related trash items will be enclosed in sealed trash containers and will be properly disposed off site. c. No pets belonging to Project personnel will be allowed anywhere in the Project area during construction. d. No firearms carried by Project personnel will be allowed except for those carried by authorized security personnel or local, state, or federal law enforcement officials. e. A spill response plan will be prepared. Hazardous materials (e.g., fuels, oils, or solvents) will be stored in sealable containers in a designated location at least 50 feet from any aquatic features. f. Project-related vehicles will be required to observe a 10-mile-per-hour speed limit in all staging or storage areas.
Biological	PF-BIO-13	**Fish Passage Assessment.** In accordance with Caltrans policy and Senate Bill 857, Caltrans will conduct first-pass fish passage surveys of all unassessed stream crossings in the Project Footprint. The survey results will be provided to the Passage Assessment Database maintained by CDFW.
Cultural Resources	PF-CUL-01	**Discovery of Archaeological Materials.** If archaeological materials are discovered during construction, all earth-moving activity in and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and substance of the find.
Cultural Resources	PF-CUL-02	**Discovery of Human Remains**. If remains are discovered during excavation, all work within 60 feet of the discovery will halt, and Caltrans' Office of Cultural Resources (OCRS) will be called. OCRS staff will assess the remains and, if determined to be human, will contact the County Coroner in accordance with Public Resources Code (PRC) Sections 5097.98, 5097.99, and Section 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, which will assign a Most Likely Descendant. Caltrans will consult with the Most Likely Descendent on treatment and reburial of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Resource	Feature	Description
Greenhouse Gas (GHG)	PF-GHG-01	**Emissions Reduction.** Caltrans Standard Specifications Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the Project and to certify they are aware of and will comply with all ARB emission reduction regulations.
Hazardous Materials	PF-HAZ-1	**Unanticipated Hazardous Waste.** Caltrans standards will be followed for the proper handling and disposal of any unanticipated hazardous waste discovered during construction.
Hazards and Hazardous Materials	PF-HAZ-02	**Aerially Deposited Lead (ADL).** The Project will implement BMPs according to Caltrans specifications special provision 12-11.09, “Minimal Disturbance of Regulated Material Containing ADL.”
Hydrology and Water Quality	PF-WQ-1	**Water Quality BMPs.** The potential for adverse effects to water quality will be avoided by implementing temporary and permanent BMPs outlined in Section 7-1.01 G of the Caltrans Standard Specifications. Caltrans erosion control BMPs will be used to minimize any wind or water related erosion. The State Water Resources Control Board has issued a National Pollutant Discharge Elimination System Statewide Storm Water Permit to Caltrans to regulate stormwater and nonstormwater discharges from Caltrans facilities. A Water Pollution Control Plan will be developed for the Project because one is required for all projects that have less than 1 acre of soil disturbance.

1.8 Necessary Permits and Approvals

Table 1-3 summarizes the permits, licenses, agreements, and certifications that would be necessary for Project construction.

Table 1-3 Necessary Project Permits and Approvals

Agency	Permit, License, Agreement, or Certification	Status
California Department of Fish and Wildlife	California Fish and Game Code Section 1602 Lake or Streambed Alteration Agreement	Consultation is ongoing.
City of Half Moon Bay	Coastal Development Permit, or exemption from Coastal Development Permit requirements	The Project is partially within the Coastal Zone area that is governed by City of Half Moon Bay's Local Coastal Program, and Coastal Development Permit jurisdiction. Application submittal is anticipated during the detailed design phase.
San Mateo County	Coastal Development Permit, or exemption from Coastal Development Permit requirements	The Project is partially within the Coastal Zone area that is governed by San Mateo County's Local Coastal Program, and Coastal Development Permit jurisdiction. Application submittal is anticipated during detailed design phase.
California Coastal Commission	Federal Coastal Consistency Certification or Waiver	The Project is partially within the Coastal Zone area that is outside of Local Coastal Programs and governed by the Coastal Commission. Review is anticipated to be concurrent with Coastal Development Permit requests through Local Agencies. Any Coastal Development Permit issued by local agencies is appealable to the California Coastal Commission (Public Resources Code Section 20603)
San Francisco Regional Water Quality Control Board	Federal Clean Water Act Section 401 Water Quality Certification	Request to be prepared during detailed design phase.
United States Army Corps of Engineers	Federal Clean Water Act Section 404, and Rivers and Harbors Act Section 10 Permit	Nationwide Permit No. 14 or Regional General Permit No. 33 to be requested during detailed design phase.

Agency	Permit, License, Agreement, or Certification	Status
United States Fish and Wildlife Service	Federal Endangered Species Act Section 7 consultation for threatened and endangered species	Consultation ongoing.

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Chapter 2 California Environmental Quality Act Evaluation

2.1 Determining Significance under CEQA

The Project is subject to state environmental review requirements. Project documentation has been prepared in compliance with CEQA. Caltrans is the lead agency under CEQA. This chapter evaluates potential environmental impacts of the Project, as described in Chapter 1, related to the CEQA checklist to comply with the state CEQA guidelines (Title 14, California Code of Regulations, Division 6, Chapter 3, Section 15091).

2.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that may be affected by the Project. In many cases, background studies performed in connection with a project will indicate that no impacts would occur on a particular resource. The words “significant” and “significance” used throughout the following sections are related to CEQA, not to the National Environmental Policy Act (NEPA), impacts. The questions in the checklist are intended to encourage a 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 most Caltrans projects, such as best management practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions—are an integral part of the Project and have been considered before any significance determinations documented herein (see Section 1.7 for a detailed discussion of these features). This checklist incorporates by reference the information that is presented in Chapter 1 .

2.2.1 Aesthetics

Except as provided in Section 21099 of the Public Resources Code (PRC), 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?	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	Less than Significant Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than Significant Impact

2.2.1.1 CEQA Significance Determinations for Aesthetics

Responses to the following questions are based on Caltrans' Visual Impact Assessment for the Project (Caltrans 2022b).

a) Would the Project have a substantial adverse effect on a scenic vista?

A scenic vista is a viewpoint of natural scenery, historic, and/or architectural features possessing visual qualities of value to the community. A vista typically refers to expansive views, usually from an elevated and open area. Certain stretches of SR 1 have scenic vistas, and those scenic qualities have been considered during Project development to avoid substantial adverse effects on scenic vistas. The Project would not affect scenic vistas along SR 1 or SR 92. There would be no impact, and no additional mitigation is required.

b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?

SR 1 within the Project limits is not a designated State Scenic Highway. Consequently, the Project would not substantially degrade scenic resources within a State Scenic Highway. SR 1 is eligible for scenic designation, and avoidance and minimization measures have been taken to minimize Project-related visual impacts to the Project corridor.

c) Would the Project, 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?

Caltrans has considered potential visual impacts in its design approach and would implement standard project features to avoid and minimize visual and aesthetic impacts from the overall Project, as summarized in Section 1.7 (Table 1-2).

Although the Project area is not a State Scenic Highway, its scenic character is protected by the Coastal Act and other applicable plans, which are elaborated on in Section 2.2.11. In the Coastal Zone, the scenic qualities of Highway 1 are protected under sections 30251 and 30254 of the Coastal Act.

Most of the Project along the 7.3-mile corridor would result in visual change, including roadway rehabilitation, Complete Streets improvements, drainage improvements, and upgrades to traffic operations and safety elements. With implementation of Project features incorporated into the Project design, the impact would be less than significant.

d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The Project's guard rails could create glare that may cause a minor visual impact where they are replaced and installed. The impact would be less than significant. No additional mitigation is required.

Proposed Avoidance and Minimization Measure

VIS-01, Guardrail Finish. To reduce glare, Caltrans will include a matte finish on exposed metal surfaces of guard rails.

2.2.2 Agriculture and Forest Resources

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

Question	CEQA Determination
a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Would the Project 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) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact

2.2.2.1 CEQA Significance Determinations for Agriculture and Forest Resources

a), b), c), d), and e)

Caltrans has reviewed current mapping data provided by the DOC (2022) and confirmed that no Farmland of Statewide Importance is in or adjacent to the Project area. The Project area is not in but is adjacent to Unique Farmland and Prime Farmland at some locations. However, the Project area would be limited to the existing right-of-way at these locations and would not convert adjacent lands. The Project area does not contain land zoned for agricultural uses; land under the Williamson Act; or land zoned as forest land, timber land, or timberland production. No loss or conversion of forest land to non-forest land would occur, nor any other changes to the existing environment that would convert farmland to nonagricultural use or forest land to non-forest use. Therefore, no impact would occur.

2.2.3 Air Quality

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

Question	CEQA Determination
a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?	No Impact
b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard?	No Impact
c) Would the Project expose sensitive receptors to substantial pollutant concentrations?	Less than Significant Impact
d) Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

2.2.3.1 CEQA Significance Determinations for Air Quality

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The Project area is in the San Francisco Bay Area Air Basin and is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), ARB, the San Mateo County General Plan (San Mateo County 1986), and the San Mateo County Local Coastal Program (LCP) (San Mateo County 2013b). San Mateo County is in a nonattainment zone for 8-hour ozone (2015) and particulate matter equal to or less than 2.5 microns in diameter (2006), according to federal 2021 standards (U.S. EPA 2021e).

The Project is exempt from the federal requirement to determine project-level air quality conformity, in accordance with 40 Code of Federal Regulations (CFR) 93.126–Exempt Projects-Pavement resurfacing and/or rehabilitation. An exempt project generally is considered as having no impact on air quality with respect to the region's ability to meet air quality standards. The Project would not add capacity, and therefore would not result in operational degradation of air quality. The Project is anticipated to result in short-term emissions during construction, but air pollutants are expected to be minimal to negligible. Construction practices would conform to the performance standards outlined in the applicable plans and Caltrans standards specifications. The Project would not conflict with or obstruct implementation of the pertinent air quality policies and goals of these agencies. No impact would occur.

b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard?

The Project would not increase capacity on SR 1 or SR 92 and would not cause long-term degradation of air quality because of additional traffic, which could be cumulatively considerable. During Project construction, short-term emissions would occur from the use of diesel and gasoline-powered construction equipment and vehicles. However, these short-term

emissions would not result in a cumulatively considerable net increase of criteria pollutants. No impact would occur.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors include children, the elderly, people with asthma, and other members of the population who are at a heightened risk of negative health outcomes from exposure to air pollution. Schools, childcare facilities, hospitals, nursing homes, and residential communities are locations where sensitive receptors typically occur. Although schools (Picasso Preschool, Wilkinson School, El Granada Elementary School, La Costa Adult School, and Hatch Elementary School), childcare facilities (Cottage by the Sea Childcare and Izzi at Half Moon Bay), and hospitals (Seaton Coastside and Coastside Clinic) are nearby, the Project would not increase emissions of criteria pollutants or mobile source air toxics above existing conditions. Although construction activities would impact nearby sensitive receptors, generation of air emissions would be temporary and limited to the period of construction. In addition, implementation of Project features PF-AQ-01, PF-AQ-02, and PF-AQ-03, listed in Table 1-2, would minimize impacts from emissions during the construction phase. Therefore, the impact would be less than significant.

d) Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Typical odors associated with construction equipment and repaving may be present temporarily. However, the Project would not lead to long-term emissions, such as odors, that would adversely affect a substantial number of people. No impact would occur.

2.2.4 Biological Resources

Question	CEQA Determination
a) Would the Project 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 Impact
b) Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less than Significant Impact
c) Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than Significant Impact
d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact
e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

2.2.4.1 CEQA Significance Determinations for Biological Resources

Responses to the following questions are based on Caltrans' Natural Environment Study for the Project, prepared in April 2022 (Caltrans 2022c). Potential wetlands, other waters of the United States, and waters of the state regulated by the United States Army Corps of Engineers and the Regional Water Quality Control Board (RWQCB); and riparian areas and Coastal Zone wetlands regulated by the California Coastal Commission (CCC) were mapped in the Biological Study Area (BSA) for the September 2021 aquatic resource jurisdictional delineation report (Caltrans 2021h).

As defined in the NES (Caltrans 2022c), the BSA consists of the Project footprint (permanent or temporary impact areas, including staging and access areas), along with buffer areas (surrounding the Project footprint) that construction activities may directly or indirectly impact. The buffer areas were estimated based on the potential for Project activities to cause noise, water quality, or geomorphological impacts.

Vegetation was mapped and described based on field surveys at water crossings and areas subject to off-pavement disturbance. In all other parts of the BSA, vegetation was mapped using a combination of aerial imagery and street view imagery. Vegetation was mapped to the vegetation alliance level using the California Native Plant Society Manual of California Vegetation (CNPS 2021) classification system where possible. For vegetation communities

that could be consistently identified to the association level throughout the BSA, the vegetation association was also recorded in the vegetation habitat descriptions. The presence of invasive species, defined as those included on the California Invasive Plant Council (Cal-IPC 2021) inventory of invasive plants, was noted for vegetation communities on the field surveys.

a) Would the Project 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?

The Project would have less-than-significant impacts. The Project's BSA contains potential habitat for special-status species that have moderate to high potential to occur. Appendix B contains a summary table of the potential for special-status species to occur, based on literature/database searches, biological surveys, evaluation of appropriate habitat, and the habitat and life history requirements for each species. The Project footprint overlaps with areas that are designated as Essential Fish Habitat (EFH) by the National Oceanic and Atmospheric Administration (NOAA) Fisheries.

The following federally and state-listed fish and wildlife species are either known to occur in or have the potential to occur in the BSA:

Federally and State-Listed Species

- Steelhead (*Oncorhynchus mykiss irideus*), Central California Coast Distinct Population Segment (DPS), federally endangered, and stated endangered
- Coho salmon (*Oncorhynchus kisutch*), Central California Evolutionarily Significant Unit (ESU), federally threatened
- California red-legged frog (*Rana draytonii*), federally endangered, state species of special concern
- San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), federally endangered, state endangered, and state fully protected species

Caltrans, in consultation with the United States Fish and Wildlife Service (USFWS), has determined that the Project may effect, and is likely to adversely affect, the California red-legged frog and the San Francisco garter snake. Caltrans, as the lead federal action agency, has determined that the Project would have no effect on Steelhead and Coho Salmon. A summary of consultation with USFWS pursuant to the federal Endangered Species Act (FESA) is provided in Section 3.1.

Special-Status and Locally Rare Species

- Ornduff's meadowfoam (*Limnanthes douglasii* ssp. *ornduffii*), California Rare Plant Rank (CRPR) 1B.1 (plants that are rare, threatened, or endangered in California and elsewhere; seriously threatened in California)
- Protected and migratory birds

The potential impacts to the special-status wildlife and plants listed above are described in the following paragraphs.

Steelhead

The Central California Coast DPS of steelhead is a federally threatened species (62 Federal Register [FR] 43937, August 18, 1997). Central California Coast steelhead DPS includes all naturally spawned anadromous populations below natural and manmade impassable barriers in California streams from the Russian River (inclusive) to Aptos Creek (inclusive); and the drainages of San Francisco, San Pablo, and Suisun Bays, eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers (71 FR 834, January 5, 2006).

Caltrans reviewed existing data and reports to assess the status and potential occurrence of steelhead in the BSA. Steelhead likely occupy Denniston and Frenchman's Creeks, are known to occupy Pilarcitos Creek, and are unlikely to occupy Deer and Arroyo de en Medio Creeks (Becker and Reining 2008). Denniston Creek, Frenchmen's Creek, and Arroyo en Medio Creek are designated as critical habitat for Central California Coast steelhead. Caltrans review of the California Natural Diversity Database (CNDDB) indicates recent records of steelhead in Frenchman's Creek. All remaining unnamed drainages in the BSA lack the necessary hydrologic characteristics necessary to support steelhead.

No culvert replacement or other instream work is anticipated at Denniston Creek and Frenchmen's Creek. Work near those two waterways would be limited to guardrail replacement, which may involve vegetation removal from the road shoulder or the trimming of tree branches that overhang the road shoulder. This limited vegetation removal is not expected to result in any decrease in shading or riparian habitat impacts to areas potentially supporting steelhead. Culvert replacement work would occur at Arroyo de en Medio Creek and at unnamed drainages. However, those waterways are not expected to support steelhead, and they all feed directly into the Pacific Ocean and thus are not tributaries to waterways that may support steelhead migration.

Proposed Avoidance and Minimization Measure

Caltrans proposes the following measure to avoid and minimize impacts on steelhead:

> **BIO-01: Riparian Vegetation Protection**
>
> All riparian habitat in the Project area will be delineated as an ESA, and no construction activities will occur outside of the immediate work area in riparian habitat ESAs. At the roadway crossings of Denniston, Frenchman's, and Pilarcitos Creeks, Caltrans will limit riparian vegetation removal to the immediate work area. Trees or shrub trimming at those locations will be limited to removing only branches that overhang the roadway.

Coho Salmon

The Central California Coast ESU was listed as federally endangered in 1996 (61 FR 56138) and is a state endangered species under the California Endangered Species Act (CESA). This ESU includes all naturally spawned Coho salmon, encompassing reaches of all rivers (including estuarine areas and tributaries) between Punta Gorda (Mendocino County) and San Lorenzo River (Santa Cruz County)

No evidence could be found, historical or otherwise, that any of the drainages in the BSA may support Coho salmon (Spence et al. 2012; NMFS 2012). Furthermore, current habitat conditions in the waterways in the BSA are generally incompatible with the species because they lack summer cold water flows, deep pools with abundant cover, and a lagoon suitable for a successful transition to saltwater, all of which the species requires.

California Red-Legged Frog

The California red-legged frog was federally listed as a threatened species under FESA on May 23, 1996, (61 FR 25813; USFWS 1996). On April 16, 2010, USFWS designated revised critical habitat for the California red-legged frog under FESA. Critical habitat for the California red-legged does not occur in the Project area, but does occur within 2 miles of the Project. California red-legged frog is distributed throughout 26 counties in California but is most abundant in the San Francisco Bay area. California populations have become isolated in the Sierra Nevada, North Coast, and the northern and southern Transverse and Peninsular ranges (Jennings and Hayes 1994; Stebbins 2003).

Riverine habitat exists in the Project BSA, and California red-legged frogs can move considerable distances over land. Multiple California red-legged frog occurrences are documented within 2 miles of the Project footprint. The Project's disturbance from construction activities is generally within the existing baseline disturbance of SR 1 in the Project area (e.g., local dense street traffic, visitor activity in adjacent parking lots, gas stations, shopping centers, residential development, bus stops, and ongoing roadway maintenance activities). Agricultural and undeveloped lands that run parallel to SR 1 may provide limited dispersal routes that are free of major barriers to frogs. Roadside drainage ditches along SR 1 may further increase connectivity between other open areas and the BSA. The ditches and associated culverts may provide shelter as well as aquatic habitat during portions of the year. The Project footprint is, however, subject to regular mowing; its value to frogs is likely restricted to frogs dispersing through the area, mostly during inclement weather. Additionally, SR 1 acts as a potential barrier to California red-legged frog. However, there is limited ecological incentive for California red-legged frog to be seeking habitats west of SR 1. Developed urban land throughout the BSA provides additional barriers to dispersal and habitat connectivity.

Much of the Project footprint overlaps areas that are paved or otherwise developed and do not support California red-legged frog. Small areas of potential habitat for California red-legged frog would be permanently and temporarily impacted due to ground disturbance and vegetation removal. The Project's direct temporary impacts on potential habitat are estimated in acreage. Permanent impacts are those that would remove habitat for more than 1 year and temporary impacts are those that would remove habitat for less than 1 year. Impacts to upland/dispersal habitat are based on the maximum estimated ground disturbance throughout the Project footprint. Table 2-1 summarizes potential permanent and temporary impacts on California red-legged frog habitat in the BSA.

The Project removed the construction of sidewalks approaching the Pilarcitos Creek Bridge in Half Moon Bay. This element was anticipated to have minor permanent effects on frog habitat, which were considered in the draft IS. No permanent effects on California red-legged frog are anticipated with this Project change.

Table 2-1 Potential Impacts to California Red-Legged Frog Potential Habitat

Habitat Type	Impact Type	Area (acres)
Aquatic breeding	Permanent	0
Aquatic breeding	Temporary	0
Aquatic nonbreeding	Permanent	0
Aquatic nonbreeding	Temporary	0.03

Upland/dispersal	Permanent	0
Upland/dispersal	Temporary	1.09

The Project has the potential to adversely affect individual frogs that occur at the Project site during construction, through direct interaction with construction activities that may result in injury, mortality, or harassment. The Project is anticipated to cause indirect effects to California red-legged frog through ground disturbance from vegetation removal; equipment and vehicle staging; trampling of vegetation; construction-related dust; increases in noise and light; and impacts to water quality during construction.

Proposed Avoidance and Minimization Measure

Caltrans proposes the following measures to avoid and minimize impacts to California red-legged frog. These measures would also serve to protect San Francisco garter snake because these species occupy the same habitat in the BSA.

BIO-02: Seasonal Avoidance

Construction activities off paved surfaces in areas of potential California red-legged frog habitat (ESAs) will be performed between June 15 and October 15 to minimize impacts on this species. Designated staging areas may be used outside of this work window once cleared by a USFWS-approved biologist or their designee and fenced, as appropriate.

BIO-03: Proper Use of Erosion Control Devices

To avoid entanglement or injury of California red-legged frog or San Francisco garter snake, erosion control materials that use plastic or synthetic monofilament netting will not be used.

BIO-04: Avoidance of Entrapment

To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day with plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks at an angle no greater than 30 degrees. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. All replacement pipes, hoses, culverts, or similar structures less than 12 inches in diameter will be closed, capped, or covered upon entry to the Project site. All similar structures greater than 12 inches must be inspected before they are subsequently moved, capped, and/or buried.

BIO-05: Biological Monitor

The names and qualifications of proposed biological monitor(s) will be submitted to the USFWS for approval prior to the start of construction. The USFWS-approved biological monitor(s) will keep a copy of the USFWS biological opinion in their possession when on site. Through communication with the resident engineer, the USFWS-approved biological monitor(s) will be on site during all work that could reasonably result in take of California red-legged frog or other special-status species. The USFWS-approved biological monitor(s) will have the authority to stop work that may result in the unauthorized take of special-status species. If the USFWS-approved biological monitor

exercises this authority, the USFWS will be notified by telephone and e-mail message within one working day.

BIO-06: Pre-Construction/Daily Surveys

Pre-construction surveys for special-status species will be conducted by the USFWS-approved biological monitor no more than 14 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal and fence installation) in the Project footprint. These efforts will consist of walking surveys of the Project limits and, if possible, accessible adjacent areas within at least 50 feet of the Project limits. The USFWS-approved biological monitor will investigate potential cover sites when it is feasible and safe to do so. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the Project limits will be documented and relocated to an adequate cover site in the vicinity, with the exception of fully protected species. Safety permitting, the USFWS-approved biological monitor will also survey areas of disturbed soil for signs of California red-legged frog or San Francisco garter snake within 30 minutes following initial disturbance of the given area. The need for further pre-construction surveys will be determined by the biologist based on site conditions and realized construction timelines.

BIO-07: Protocol for Species Observation

The USFWS-approved biological monitor(s) will have the authority to halt work through coordination with the resident engineer if California red-legged frog or San Francisco garter snake are observed in the Project footprint. The resident engineer will keep construction activities suspended in a 50-foot radius of the California red-legged frog or San Francisco garter snake in any construction area where the biologist has determined that a potential take of the species could occur. Work will resume after observed listed individuals leave the site voluntarily, the biologist determines that no wildlife is being harassed or harmed by construction activities, or the wildlife is relocated by the biologist to a release site using USFWS-approved handling techniques.

BIO-08: Handling of California Red-Legged Frog

If a California red-legged frog is discovered, the resident engineer and USFWS-approved biological monitor will be immediately informed.

- If a California red-legged frog gains access to a construction zone, work will be halted immediately within 50 feet until the animal leaves the site or is captured and relocated by the USFWS-approved biological monitor.
- The USFWS will be notified within one working day if a California red-legged frog or San Francisco garter snake is discovered in the construction site.
- The captured California red-legged frog will be released in appropriate habitat outside of the construction area but near the capture location. The release habitat will be determined by the USFWS-approved biological monitor.
- The USFWS-approved biological monitor will take precautions to prevent introduction of amphibian diseases in accordance with the Revised Guidance

on Site Assessments and Field Surveys for the California Red-Legged Frog (USFWS 2005).

San Francisco Garter Snake

The San Francisco garter snake was federally listed as an endangered species under FESA on March 11, 1967 (32 FR 4001). No critical habitat has been designated. San Francisco garter snake was listed as a state endangered species in 1971 (USFWS 2006) and is listed as a Fully Protected Species under California Fish and Game Code (CFGC) Section 5050. The listing occurred because of San Francisco garter snake habitat loss across the snake's range. The San Francisco garter snake is limited in distribution to portions of San Mateo and Santa Cruz counties.

Caltrans relied on the best available scientific and commercial data, including literature searches and a visual assessment, to evaluate the potential for this species to occur in the BSA and to infer a potential for presence. Caltrans reviewed CNDDB and the online application iNaturalist to determine potential occurrence of San Francisco garter snake in the BSA. San Francisco garter snake were not observed on site during reconnaissance site visits, and a protocol-level survey was not conducted for this Project.

Eleven recorded occurrences of San Francisco garter snake exist within 2 miles of Project BSA locations. Three observations are known to be extirpated, and all but one are precluded from occurring in the BSA by barriers such as the SR 1 concrete median, residential development, or distance from the Project area. Potential habitat for San Francisco garter snake in the BSA is marginal. Paved surfaces, graveled shoulders, and regularly mowed areas do not provide the physical or biological elements required to support San Francisco garter snake in any of its life stages. It is unlikely that San Francisco garter snake individuals could occur in the Project area where work is proposed.

Small areas of potential habitat for San Francisco garter snake would be temporarily impacted due to ground disturbance and vegetation removal. Project impacts are quantified in acreage. Permanent impacts are those that remove habitat for more than 1 year, and temporary impacts are those that remove habitat for less than 1 year. Impacts to upland/dispersal habitat are based on the maximum estimated ground disturbance in the Project footprint. Table 2-2 provides an estimate of impacts to different types of potential San Francisco garter snake habitat.

Table 2-2 Impacts to San Francisco Garter Snake Potential Habitat

Habitat Type	Impact Type	Area (acres)
Aquatic breeding	Permanent	0
Aquatic breeding	Temporary	0.03
Upland/dispersal	Permanent	0
Upland/dispersal	Temporary	1.09

The Project removed the construction of new sidewalks adjacent to SR 1 approaching the Pilarcitos Creek Bridge in Half Moon Bay. This element was anticipated to have minor permanent impacts on San Francisco garter snake upland dispersal habitat, which were

considered in the draft IS. No permanent impacts on San Francisco garter snake are anticipated with this Project change.

Special-Status Plant Species

There is currently one plant species that is known to or likely to occur in the BSA. Other special-status plant species were determined to have little or no potential to occur in the BSA. Initial reconnaissance surveys did not discover any special-status plant species, but the surveys were not appropriately timed to determine the presence of rare plants with potential to occur in the BSA. Several special-status plants (defined here as plants ranked CRPR 1A, 1B, 2A, or 2B2, as well as state and federally listed species) have potential to occur in the BSA and have known occurrences mapped nearby, but would not have been detectable at the time of survey. A rare plant survey prior to final Project design is required to determine the presence of and potential impacts on any listed plant species.

Ornduff's meadowfoam, a CRPR 1B.1 special-status plant, was identified in the BSA during a follow up survey in March 2022. Ornduff's meadowfoam is an annual plant only known to occur the area between Half Moon Bay and Moss Beach. The species was initially identified in 1998 in an agricultural field at that location. The core of this species' population grows densely over an area of approximately 18 acres (Buxton 2013). Repeated attempts to locate this species elsewhere in California have not been successful (Buxton 2013).

Ornduff's meadowfoam is a winter annual that germinates in the fall. Flowering and fruiting occur simultaneously through the winter and early spring (Buxton 2013). The species currently occupies low-lying portions of an agricultural field, along with adjacent drainage ditches and ruts. The field is plowed annually, which reduces competition; the species completes its life cycle during the time when the field is fallow.

An area of agricultural cropland adjacent to SR 1 supports the only known population of this plant. The population appears to be thriving in the constant disturbance regime and moist soil conditions in the agricultural field where it occurs. During a site visit on April 15, 2022, a botanist identified Ornduff's meadowfoam occurring on both sides of the freeway where it is known to occur. Caltrans previously assessed potential drainage work in this area. Poor drainage of the agricultural croplands in the BSA is likely a contributing factor to the moderately moist soil (i.e., mesic) conditions associated with this plant population. To avoid impacts to this newly discovered population, Caltrans eliminated the drainage work considered at this location from the Project.

A substantial change in soil moisture regime may eradicate Ornduff's meadowfoam where it occurs in the BSA and may have an adverse impact on the only known population of this species. Avoidance and minimization measure BIO-11 will prevent drainage system work adjacent to SR 1 that could impact the area that supports, or contributes hydrologically to, this population. PF-BIO-02/AMM BIO-13 will establish an ESA for further protection. Impacts to special-status plant species would be less than significant; no mitigation is proposed or required with implementation of the Project features and avoidance and minimization measures proposed.

Proposed Avoidance and Minimization Measures

Caltrans will implement the following avoidance and minimization measures to protect special-status plants prior to construction:

BIO-09 Rare Plant Survey

Caltrans will conduct a rare plant survey in the BSA to determine the presence or absence of special-status plant species. 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 are targeted to occur in March, late April/May, and June of 2022. All plants will be identified to a level needed to verify protected status. Any listed plants discovered in the field will be mapped and included as ESAs in the final plans and specifications. Caltrans will consult with the appropriate wildlife agency with jurisdiction and will obtain necessary permits or authorizations if unavoidable take of a listed plant species incidental to the proposed work would occur.

BIO-10 Pre-Construction Plant Survey

A Project biologist with appropriate botany experience will perform a site survey in ESAs where construction disturbance could occur before start of work. Special-status plants will be flagged and avoided where possible. Caltrans will coordinate with appropriate wildlife agencies with jurisdiction prior to construction if incidental take of a listed plant species is unavoidable, and will obtain any necessary permits or authorizations for direct impacts. Caltrans will adhere to the requirements of all permits and authorizations issued for the Project.

BIO-11 Drainage Work Exclusion for Ornduff's Meadowfoam

Caltrans will avoid drainage system rehabilitation or other work in unpaved areas that could affect soil hydrology within 3,000 feet of where Ornduff's meadowfoam is known to occur. If Caltrans later determines that rehabilitating the drainage system at this location is necessary, it will complete a soil hydrology study, drainage system design, and mitigation plan in coordination with the California Department of Fish and Wildlife (CDFW) that results in no net loss of this species or its habitat.

Essential Fish Habitat

No evidence could be found, historical or otherwise, that Pilarcitos Creek or any of the other smaller drainages (such as Denniston or Frenchman's Creeks) in the BSA may support Coho salmon (Spence et al. 2012; NMFS 2012). Furthermore, current habitat conditions in the waterways in the BSA are generally incompatible with the species because they lack summer cold water flows, deep pools with abundant cover, and a lagoon suitable for a successful transition to saltwater, all of which the species requires. Because Pilarcitos Creek may have historically supported Coho salmon, it is designated as EFH under the Pacific Coast Salmonid Fisheries Management Plan. Pilarcitos Creek is not expected to provide spawning areas for Coho.

No culvert replacement or other instream work would occur at Pilarcitos Creek where EFH is present. Work near this waterway would be limited to guardrail replacement in upland habitat, which may involve vegetation removal from the road shoulder or the trimming of tree branches that overhang the road shoulder. This limited form of vegetation removal is not expected to result in any decrease in shading or other forms of riparian habitat contribution to areas potentially supporting salmon. As a result, the Project would have no impacts to EFH.

b) Would the Project 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?

The Project would have less-than-significant impact. Vegetation in the BSA is relatively common, with sensitive communities being limited to wetlands and other waters of the United States and waters of the state. The creek corridors at the creek crossings in the BSA consists of a vegetation type dominated by tall red alder (*Alnus rubra*) trees, and dense arroyo willow (*Salix lasiolepis*) and red willow (*Salix laevigata*) stands.

Approximately 4.3 acres of riparian woodlands occur in the Project's BSA. The Project is currently estimated to have temporary impacts to less than 0.44 acre of CCC jurisdictional riparian areas. The Project does not anticipate permanent impacts to CCC riparian areas. Implementation of Project Feature PF-BIO-08 would address temporarily impacted areas, and a final revegetation and planting plan will be completed during the final design phase. Specific impacts would be estimated during the application for a Coastal Development Permit from the LCP or CCC.

Construction work in the perennial and intermittent creek up to the top of bank, and any contiguous adjacent riparian habitat, also would require a CFGC Section 1602 Streambed Alteration Agreement from CDFW.

Caltrans would implement Project features and the avoidance and minimization measures proposed in response to the following question that would benefit riparian habitat and sensitive natural communities within the Project area. Additionally, the measure proposed for steelhead, BIO-01, would also minimize impacts to riparian habitat.

c) Would the Project 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?

The Project would have a less-than-significant impact. The Project's construction activities have the potential to impact wetlands and waters directly and indirectly in the BSA. Project actions that could cause temporary impacts to waters of the United States and waters of the state include construction access and work in the wetlands for culvert replacement.

Permanent impacts to wetlands and waters of the United States would be avoided because the new drainage system elements would be rehabilitated entirely within the footprint of the existing elements. The Project would result in temporary impacts to jurisdictional areas. No permanent impacts to wetlands and other waters is anticipated. The Project has potential to temporarily impact less than 0.001 acre of wetlands, less than 0.02 acre of other waters, and less than 0.02 acre of culverted waters of the United States.

The Project would have no permanent impacts on wetlands or waters that are state jurisdictional only. The Project would have relatively minimal temporary impacts on other waters of the state, including less than 0.03 acre of other waters and less than 0.02 acre of culverted other waters.

Specific impacts in Project area will be estimated to obtain all necessary state and federal permits for the Project during the final design phase. The Project is proposing avoidance and minimization measures for potential impacts to wetlands and waters, and no mitigation is proposed.

Proposed Avoidance and Minimization Measures

Caltrans would implement the following measures to address potential impacts to wetlands, waters, and riparian habitat in the Project area:

BIO-12: Wetlands and Waters Construction Work Windows

Work in wetlands, waters, and riparian habitat will be limited to June 15 through October 15 to avoid or minimize impacts to waters of the United States, waters of the state, riparian habitat, and special-status species habitat.

BIO-13: Environmentally Sensitive Areas

Wetlands, waters, riparian habitat, designated critical habitat, and special-status species habitat—including that of Ornduff's meadowfoam—will be delineated as ESAs on contract plans and defined in contract specifications. ESAs outside of the proposed work areas will be specifically identified to avoid during construction. Where work must occur in or adjacent to an ESA, an approved biologist with stop-work authority will be present.

BIO-14: ESA Fencing

Caltrans will install fencing to outline and protect ESAs prior to the start of construction. ESA provisions will be implemented as a first order of work and will remain in place until all construction activities are completed in the work area.

d) Would the Project 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?

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated "islands" of wildlife habitat, forming separated populations. Creek corridors may act as an effective link among suitable habitat in the BSA. The Project would not further develop the existing roadway and would therefore have no impact on terrestrial species movement.

SR 1 acts as a potential barrier to terrestrial wildlife, such as California red-legged frog, in the Project vicinity. However, there is limited ecological incentive for California red-legged frog or San Francisco garter snake to seek habitats west of SR 1, given the proximity to the ocean. Creek corridors throughout the Project footprint may act as an effective link for some populations. Urban land throughout the BSA may serve as a potential barrier to habitat connectivity.

The Project would replace in-kind two small, culverted water crossings that are not likely to support anadromous fish in the BSA: Arroyo de en Medio and an unnamed tributary to Denniston Creek. Work at these crossings would not substantially interfere with movement of any migratory fish or aquatic species. The Project would have no impacts on aquatic species because these culverts would retain existing conditions and are not likely to support anadromous fish species.

e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The Project would have no impact.

f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project is not within the boundaries of any Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or state habitat conservation plans. The Project would have no impact.

2.2.5 Cultural Resources

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

Caltrans Professionally Qualified Staff (PQS) archaeologists and architectural historians have reviewed Project information, the Caltrans Cultural Resource Database, as-built plans, aerial photographs, and maps, to evaluate the Project's potential to affect cultural resources. An Area of Potential Effects (APE) was established for the Project area in consultation with Caltrans PQS and Project Manager on October 6, 2021 (Caltrans 2021i). The APE is the area within which an undertaking may directly or indirectly cause impacts in the character or use of historic properties, including vertical impacts. The maximum depth of ground disturbance from Project construction is anticipated to be 6 feet below ground surface. Two archaeological sites were identified in the APE and are considered to be eligible for inclusion in the National Register of Historic Places for the purposes of this Project. They are considered eligible only because they will be protected in their entirety from any potential effects through the establishment of an ESA, in accordance with Stipulation VIII.C.3 of the Section 106 Programmatic Agreement. No built resources were identified in the APE.

Caltrans' Office of Cultural Resource Studies determined that a Finding of No Adverse Effect with Standard Conditions – ESA (Caltrans 2021e) pursuant to Section 106 of the National Historic Preservation Act of 1966 is appropriate for this Project.

2.2.5.1 CEQA Significance Determinations for Cultural Resources

a and b) Would the Project cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5?

As stated above, a Finding of No Adverse Effect with Standard Conditions - ESA was determined for the Project because the two known archaeological resources in the APE will be protected in their entirety via horizontal and vertical ESAs. In addition, implementation of Project feature PF-CUL-01 (summarized in Table 1-2) would protect previously unknown historical or archaeological resources that may be discovered during construction.

Proposed Avoidance and Minimization Measures

Caltrans proposes the following general avoidance and minimization measures to further protect known resources in the Project area.

CUL-01: ESA Action Plan

An ESA action plan will be developed for the Project to protect the two archaeological resources in the APE in their entirety. Before construction, the ESA Action Plan will be reviewed and approved by the Cultural Studies Office (CSO) at Caltrans' headquarters. The Caltrans archaeologist will ensure that the ESAs are included and described

clearly in the environmental document. The ESAs will be included in the Project's Environmental Commitment Record.

The Caltrans archaeologist will work in coordination with the other responsible parties to ensure that the ESA is represented and depicted in the plans, specification, and estimates package. The package and plans will be reviewed throughout the design process, so that the ESAs are accurately represented and depicted. The Caltrans archaeologist will ensure that the ESA Action Plan is included in the resident engineer's Pending File.

All responsible parties will ensure that the ESAs are discussed during the preconstruction meeting, led by a qualified archaeologist and Native American tribes who may want to administer training as well. The importance of the ESAs will be discussed with construction personnel, stressing that no construction activity (including storage of equipment or materials) may occur in the ESAs, and that workers must remain outside of the ESAs at all times. In addition, historic preservation laws that protect archaeological sites and artifacts against any disturbance or removal will be discussed.

The resident engineer will notify the Caltrans Office of Cultural Resource Studies staff (Caltrans project archaeologist) at least 2 weeks in advance of the start of construction. A field review of ESA locations will be conducted. The Caltrans project archaeologist will mark the ESA locations with the contractor.

CUL-02: Construction Activities for ESA Protection

Temporary high-visibility fencing will be installed by the contractor at least 1 week before beginning any ground disturbance. The Caltrans archaeologist will coordinate this activity with the resident engineer. The Caltrans archaeologist will be present to supervise and monitor this activity.

The Caltrans archaeologist will conduct spot inspections and site visits to ensure the integrity of the ESAs. The Caltrans archaeologist will notify the State Historic Preservation Officer, CSO, and consulting Native American parties within 48 hours of any ESA breach, post-review discovery, or inadvertent effect, to immediately determine how the breach or discovery will be addressed.

CUL-03: Post-Construction Activities

The resident engineer will inform the Caltrans archaeologist when construction is completed. The contractor, in coordination with the resident engineer and the Caltrans archaeologist, will remove the ESA fencing at the completion of construction.

The Project would have no impact on historical or archaeological resources because construction would not occur within known resources, and avoidance and proposed minimization measures would address any potential impacts to any known or unknown resources that may be discovered in the Project area. The impacts would be less than significant.

c) Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Known burial sites in the Project vicinity are outside the Project area. The avoidance and minimization measures proposed above (CUL-01, -02, and -3) would protect any human remains discovered in the Project area. In addition, Project feature PF-CUL-02 would establish the protocol for the discovery of previously unknown human remains, including contacting the San Mateo County Coroner, and additional actions if those remains are determined to be Native American. Therefore, no impact would occur.

2.2.6 Energy

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?	No Impact

2.2.6.1 CEQA Significance Determinations for Energy

a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Transportation energy usage generally is described in terms of direct and indirect energy, as stated in Chapter 13 of the Caltrans Standard Environmental Reference (Caltrans 2022a). Direct energy usage can be further divided into mobile sources and construction.

Direct energy usage by mobile sources typically is quantified using vehicle miles traveled (VMT), a measure of travel for all vehicles in the Project area, by converting VMT to fuel consumption, measured in British thermal units. The Project would not increase capacity, and therefore is not anticipated to increase VMT or lead to a quantifiable increase in energy usage by mobile sources (see further discussion presented in Section 2.2.17). In addition, Project construction would be a temporary and one-time commitment of energy, similar to any infrastructure improvement project. Energy consumption during construction would be conserved and minimized to the extent feasible through implementation of standard BMPs.

Indirect energy usage is primarily associated with Project maintenance (i.e., fuel used by equipment for periodic maintenance of the system). Many other sources contribute indirectly to the energy consumption of a transportation system, but they can be difficult to quantify reliably at the Project level (Caltrans 2022a). Maintenance and landscaping activities are anticipated to be minimal and would be necessary to maintain the integrity of the system. The impact would be less than significant. No additional mitigation is required.

b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The State of California Energy Action Plan and the Integrated Energy Policy Report regulate energy conservation throughout the state. The State of California Energy Action Plan was adopted to ensure adequate, reliable, and reasonably priced electrical power and natural gas quantities for California's residents, through policies that are cost-effective and environmentally conscious (CEC 2003). California policies that are influenced by the California Global Warming Solutions Act, Assembly Bill (AB) 32, are demonstrated in the Integrated Energy Policy Report, which is updated bi-annually to provide policy recommendations to meeting the state's energy demands while addressing carbon constraints (CEC 2021).

According to Senate Bill (SB) 100, the state is targeting 100 percent renewable or carbon-free energy usage by 2045. The California Energy Commission's Clean Transportation Program

leverages public and private investments to support adoption of cleaner transportation, powered by alternative and renewable fuels.

The Energy and Climate Change Element of the San Mateo County General Plan includes goals and implementing policies for reducing energy usage and combatting climate change in the county. Goal 4 of this element is to promote and implement policies and programs to reduce VMT by all vehicles traveling in the unincorporated county. Policy 4.2 focuses on promoting nonmotorized and alternative travel, through strategies such as requiring Project applicants to evaluate and identify appropriate measures to achieve Complete Streets and promote alternative travel; such measures include pedestrian paths/sidewalks or traffic calming improvements. As stated above, the Project would not lead to an increase in VMT, and therefore would not conflict with this element. In addition, as described in Section 1.5, the Project would encourage active transportation by upgrading pedestrian and bicycle features.

The Project would not lead to wasteful, inefficient, or unnecessary consumption of energy resources. Furthermore, it would encourage pedestrian and bicycle access through the inclusion of crosswalks, sidewalks, and curb cuts. Therefore, the Project is not anticipated to conflict with any state or local plans for renewable energy or energy efficiency. No impact would occur.

2.2.7 Geology and Soils

Question	CEQA Determination
a) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
ii) Strong seismic ground shaking?	No Impact
iii) Seismic-related ground failure, including liquefaction?	Less than Significant Impact
iv) Landslides?	No Impact
b) Would the Project result in substantial soil erosion or the loss of topsoil?	No Impact
c) Would the Project 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?	No Impact
d) Would the Project 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?	No Impact
e) Would the Project 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) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

2.2.7.1 CEQA Significance Determinations for Geology and Soils

a) Would the Project 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.

Caltrans reviewed the DOC's Earthquake Hazards Zone Application mapping tool and determined that the Project area is not in an earthquake fault zone (DOC 2018a). In accordance with the Division of Mines and Geology Special Publication 42, the Project would not be regulated by the Alquist Priolo Act because the Project area is not in an earthquake fault zone (DOC 2018b). The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death from the rupture of a known fault. No impact would occur.

ii) Strong seismic ground shaking?

The Project area has the potential to experience moderate to strong ground-shaking during a seismic event, based on historical seismic activity in the Bay Area and because of numerous major (i.e., the San Andreas Fault) and minor (i.e., the Seal Cove and Denniston Creek faults within the San Gregorio Fault Zone) fault lines nearby. The Project would be designed to accommodate ground shaking associated with the nearby faults to the extent feasible, in compliance with all applicable standards and regulations. The Project would have no direct or indirect impact on the potential for ground shaking or on the public's risk for loss, injury, or death from seismic events. No impact would occur.

iii) Seismic-related ground failure, including liquefaction?

Most of the Project area overlaps areas that are susceptible to liquefaction, according to DOC's California Earthquake Hazards Zone Application (DOC 2021). The overlapping area (Half Moon Bay California Geological Survey Liquefaction Zone) has a historical occurrence of liquefaction or local geological, geotechnical, and groundwater conditions that indicate a potential for permanent ground displacements. Permanent ground displacement potential in the Project area is substantial enough that design measures, as defined in PRC Section 2693(c), to reduce seismic risks would be required. These conditions would be addressed in geotechnical studies to be conducted to inform the final Project design. The impact would be less than significant. No additional mitigation is required.

iv) Landslides?

The Project area is outside landslide zones mapped by the DOC. Design and construction guidelines would incorporate engineering standards that address seismic risks, including ground failure related to liquefaction, landslides, and lateral spreading. Therefore, the Project would not increase the risk of loss, injury, or death related to landslides. No impact would occur.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Project construction would occur on existing paved roads within the Caltrans right-of-way. Some Project elements (e.g., new paved surfaces, and new or replacement traffic infrastructure elements) would include excavation, vegetation clearing, and grubbing. These earth-disturbing activities could cause temporary, localized, and minor erosion of the topsoil. Implementation of standard Caltrans practices and BMPs for erosion control would be done. After completion of construction and earth-disturbing activities, all areas of disturbed soil would be revegetated to stabilize the topsoil, to prevent any post-construction erosion. No substantial soil erosion or loss of topsoil would result from the Project. No impact would occur.

c) Would the Project 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?

Earthquake-induced landslides and other seismic-related ground failures were discussed previously, under Impact (a). Caltrans will conduct any necessary or required geotechnical subsurface and design investigations during the final design phase, to ensure that the Project addresses geologic concerns. The Project would not increase the risk of on-site or off-site landslides, lateral spreading, subsidence, liquification, or collapse. No impact would occur.

d) Would the Project 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?

Expansive soil is soil that expands when wet and shrinks when dry because of mineralogical composition. The Project area is not on expansive soil (as defined in Table 18-1-B of the Uniform Building Code [ICBO 1994]) and would not include construction of habitable structures; therefore, it would not create substantial risk to life or property. No impact would occur.

e) Would the Project 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?

The Project would not include the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project is not expected to result in disturbance to or overlap with any known paleontological resources, because the Project area is not within fossil-bearing geologic units and the Project would not affect native soil or rock. Caltrans does not anticipate the discovery or destruction of any unique paleontological resources during construction. No impact would occur.

2.2.8 Greenhouse Gas Emissions

Question	CEQA Determination
a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant Impact
b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant Impact

2.2.8.1 CEQA Significance Determinations for Greenhouse Gas Emissions

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

As stated in Section 2.2.17, the Project would not be capacity increasing and is not expected to lead to a measurable and substantial increase in vehicle travel; the Project would have no impact on VMT. Therefore, the Project would not lead to an increase in operational greenhouse gas (GHG) emissions (i.e., increased emissions from vehicles in the Project area). However, short-term GHG emissions resulting from construction activities are anticipated.

Construction-generated GHG would stem from materials processing by on-site construction equipment, workers commuting to and from the Project site, and potential traffic delays because of construction. These emissions would be produced at different rates throughout the construction phase, depending on the activities involved at various phases of Project construction. Construction-generated GHG was calculated using the Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model, version 9.0.0 (Caltrans 2021b). For a construction duration of 14 months, the total amount of carbon dioxide (CO_2) that would be produced was estimated to be 516.01 tons.

In addition to CO_2, the construction-generated GHG analysis quantified total GHG emissions—including CO_2, methane (CH_4), and nitrous oxide (N_2O)—as carbon dioxide equivalent (CO_2e). CO_2e is a measure of how much energy the emissions of 1 ton of a gas would absorb over a given time, relative to the emissions of 1 ton of CO_2. This figure was obtained by multiplying each GHG by its global warming potential (GWP). The total GHG emissions for construction would be 476.38 metric tons of CO_2e. These emissions would be short-term and would not lead to long-term adverse effects. In addition, Caltrans Standard Specifications would be followed, such as complying with air pollution control rules, regulations, ordinances, and statutes. A description of Project feature PF-GHG-01 and the requirements for contractors under Caltrans Standard Specifications Section 7-1.02A and 7-1.02C is shown in Table 1-2. This would minimize construction-generated GHG emissions to the maximum feasible extent. The impact would be less than significant. No additional mitigation is required.

b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Short-term GHG emissions during Project construction are anticipated but would be minimized to the extent feasible, and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. At the state level, ARB implements measures to achieve emission reductions of GHG in response to AB 32 and SB 32. AB 32, the

California Global Warming Solutions Act of 2006, initially set a goal of reducing GHG emissions to 1990 levels by 2020. This goal was extended by SB 32 in 2016, to reduce emissions by 40 percent below 1990 levels by 2030. At the local level, plans and programs include the San Mateo County General Plan Energy and Climate Change Element, Energy Efficiency Climate Action Plan, and Government Operations Climate Action Plan. Project construction would not conflict with any goals or policies at the state or local level, because Caltrans' Standard Specifications support the reduction of emissions to the maximum feasible extent. The impact would be less than significant. No additional mitigation is required.

2.2.9 Hazards and Hazardous Materials

Question	CEQA Determination
a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No Impact
b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No Impact
c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less than Significant Impact
d) Would the Project 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 miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	No Impact
f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than Significant Impact
g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

2.2.9.1 CEQA Significance Determinations for Hazards and Hazardous Materials

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?, and
b) Would the Project 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?

During Project construction, vehicles and equipment would be powered with gasoline or diesel, which are hazardous. Caltrans Standard Specifications and BMPs would be implemented to prevent spills or leaks from construction equipment and from storage of fuels, lubricants, and solvents. All aspects of the Project associated with removal, storage, transportation, and disposal of hazardous material would be done in accordance with the appropriate California Health and Safety Code (H&SC). If hazardous materials are found during construction, the appropriate safeguard measures would be taken, and the Project would comply with Caltrans Standard Specification 1411, Hazardous Waste and Contamination, which outlines handling, storing, and disposing hazardous waste. Project construction is not expected to create a hazard to construction workers, the public, or the environment. Project operation would not involve the use of hazardous materials. No impacts would occur.

c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Seven schools are within 0.25 mile of the Project area: Picasso Preschool, Wilkinson School, El Granada Elementary School, Pilarcitos High School and Alternative Education, La Costa Adult School, Hatch Elementary School, and Manuel F. Cunha Intermediate School. A relatively small amount of emissions from vehicles and equipment would occur during Project construction. Adherence to local, federal, and state regulations would reduce the risk of exposure to hazardous materials and accidental hazardous materials released, such as fuel.

No major sources of contamination are evident on the adjacent properties (based on a search of GeoTracker, the State Water Resources Control Board's database and geographic information system) that could migrate onto the site. Therefore, no site investigation for hazardous waste/material would be necessary during the current conceptual phase of the Project. Minor excavations would be involved in unpaved Project areas. If hazardous materials where excavation is proposed are discovered during investigations conducted during final design or construction, Caltrans would follow the appropriate standard specifications for any contaminants. During final design, Caltrans will prepare waste management requirements (e.g., treated wood waste from guardrail removal) to be included in its construction contract. The Project would not result in the spread of hazardous materials or expose sensitive receptors to hazards, such as schools. The impact would be less than significant. No additional mitigation is required.

d) Would the Project 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?

Screening of the California Department of Toxic Substances Control's EnviroStor database and its current hazardous waste and substance site list, maintained in accordance with Government Code Section 65962.5, revealed no known hazardous waste sites in the Project area. No impact would occur.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

SR 1 within the Project limits is adjacent to Half Moon Bay Airport. The City and County Association of Governments of San Mateo County (CCAG) completed a final Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport in 2014 (CCAG 2014). The Project would be compatible with the policies and criteria considered for SR 1 in the CCAG plan. Because of the relatively short duration of construction and adherence to federal and state regulations during construction, the Project is not expected to result in a safety hazard for people residing or working in the Project area. No impact would occur.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

SR 1 is a major north-south highway for the communities near the Project area, and SR 1 is expected to be used as an evacuation route in the event of an emergency. The Project would be subject to San Mateo County's Emergency Operations Plan (EOP) (San Mateo County

2015). The EOP provides guidelines for emergency response planning, preparation, training, and execution throughout the county. Project construction would result in temporary and minor increases in construction-related traffic on SR 1. Caltrans would prepare a traffic management plan (TMP) to maintain the flow of traffic during construction and ensure accessibility through the locations along SR 1 for essential services and vehicles. In the event of such an emergency, Caltrans would coordinate with local officials to ensure that SR 1 remains open to emergency traffic.

The impact would be less than significant. No additional mitigation is required.

g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The Project area is within zones that are classified as Very High Fire Severity State Responsibility Areas (CAL FIRE 2007). Caltrans proposes to replace and construct new guardrails and safety barriers made of concrete and metal, which would have a limited susceptibility to fires. The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires (see Section 2.2.20 for additional discussion about wildfire hazards). No impact would occur.

2.2.10 Hydrology and Water Quality

Question	CEQA Determination
a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less than Significant Impact
b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	No Impact
c) Would the Project 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;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	No Impact
e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

2.2.10.1 CEQA Significance Determinations for Hydrology and Water Quality

Responses to these CEQA checklist items are based on the following technical studies, prepared by Caltrans for the Project:

- Environmental Review for Project Approval and Environmental Document Memorandum from Office of Hydraulics Engineering (Caltrans 2021c)
- Multi-Asset Pavement Rehabilitation Project: Water Quality Study (Caltrans 2021d).

In addition, Caltrans reviewed the California Water Board's online database, GeoTracker, to identify any potential major sources of contamination in and adjacent to the Project area.

a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The response to this question is based on Caltrans' Water Quality Study (2021d). The Project area is under the jurisdiction of the San Francisco Bay RWQCB (Region 2), which would be responsible for enforcement of state and federal water quality regulations for the Project. The Project area is within the San Mateo Hydrologic Unit, San Mateo Coastal Hydrologic Area, and the San Gregorio Creek-Frontal Pacific Ocean Watershed. Caltrans has identified seven

receiving water bodies in and near the Project area, including San Vincent Creek, Denniston Creek, Deer Creek, Arroyo Medio, Frenchman's Creek, Pilarcitos Creek, and the Pacific Ocean. Four of the identified receiving waters are sediment-sensitive water bodies: San Vincent Creek, Denniston Creek, Frenchman's Creek, and Pilarcitos Creek.

Three Clean Water Act 303(d)-listed water bodies and pollutants of concern were identified in the Project area or vicinity (i.e., Pacific Ocean at Pillar Point, Pacific Ocean at Pillar Point Beach, and San Vicente Creek). The Project would not contribute to the identified pollutant (indicator bacteria) and would have no effect on pollutant total maximum daily loads in any 303(d) water bodies.

The Project may cause potential temporary impacts on water quality during construction. The Project would have the potential to cause temporary water quality impacts from a change in localized pH, turbidity, and other pollutants entering the active construction site, adjacent areas, and receiving water bodies.

The Project would not cause any new long-term impacts on water quality because the potential for long-term impacts from sediment deposition, sediment transport, and vehicular-related pollutants would be the same for the existing facility (i.e., the No-Build Alternative).

Project construction activities would be subject to the California State Water Resources Control Board's National Pollutant Discharge Elimination System, under Construction General Permit (CGP; Order No. 2009-0009-DWQ) and would require preparation of either a water pollution control plan (WPCP) or a stormwater pollution prevention plan (SWPPP). The current estimate indicates that the Project would cause a disturbed soil area less than 1 acre, and development of a WPCP is expected. Preparation of a WPCP or an SWPPP is a standard Caltrans contract requirement. Either plan would be used to implement standard water quality BMPs, consistent with the proposed construction activities covered in the CGP. The disturbed soil area estimate would be revised during the Project's final design phase, with a final recommendation of either developing a WPCP or an SWPPP. Project conformance with Caltrans' standard specifications for water quality controls, and preparation of a WPCP or an SWPPP, are listed as standard Project features in Table 1-2.

The impact would be less than significant. No additional mitigation is required.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

The Project would have no effects on groundwater supplies. No impact would occur.

c) Would the Project 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;

The Project would not result in substantial erosion or siltation on or off-site. The Project would not cause substantial alteration of the natural flow of waters. No impact would occur.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

The Project is anticipated to result in less than 1 acre of net new impervious surfaces and would not result in flooding on or off-site. No impact would occur.

(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

The Project would address and improve existing stormwater drainage systems in the Caltrans right-of-way throughout the Project area. The Project would create less than 1 acre of new impervious surface, but in the context of the existing roadway and Project scale, this would not be a substantial additional source of runoff. No impact would occur.

(iv) impede or redirect flood flows?

The Project would not impede or redirect flood flows and is not expected to have any effect on the base floodplains identified in the Project area. No impact would occur.

d) Would the Project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation? No Impact

A single location on SR 1 at Surfer's Beach in the Community of El Granada is susceptible to tsunami and seiche inundation and is in a Federal Emergency Management Agency (FEMA) Flood Zone. Caltrans reviewed the State Water Resources Control Board's GeoTracker data management system for sites with potential to affect water quality in the Project area. No major sources of contamination are evident in the adjacent properties that could migrate into the Project site. The Project would not introduce new pollutants into flood hazard, tsunami, or seiche zones present in the Project area. No impact would occur.

e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The San Francisco RWQCB has prepared and adopted its water quality control plan (Basin Plan), through which it manages surface and groundwater in the region. The Project would coordinate with the San Francisco RWQCB during the permitting process, to maintain compliance with the Basin Plan. No impact would occur.

2.2.11 Land Use and Planning

Question	CEQA Determination
a) Would the Project physically divide an established community?	No Impact
b) Would the Project 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

2.2.11.1 CEQA Significance Determinations for Land Use and Planning

a) Would the Project physically divide an established community?

The Project would be constructed within Caltrans right-of-way, and no new roads or existing road expansion are proposed. The Project would not alter the alignment of or access to either highway; therefore, it would not physically divide an established community. In addition, the Project would improve connections across SR 1 for nonmotorized modes of transportation. No impact would occur.

b) Would the Project 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?

SR 1 is the primary access road to coastal cities, unincorporated residential communities, and recreational areas in San Mateo County. SR 92 provides east-west access between the coastal and inland areas of the county. Land uses along the two highways include residential, recreational, and commercial. As stated in Section 2.2.17, the California Coastal Trail generally runs parallel to SR 1 in the Project area and accommodates pedestrians, bicyclists, equestrians, and others. In addition, multiple publicly accessible open space and beach areas are adjacent to the Project area, including Wavecrest Open Space, Venice State Beach, Miramar Beach, Surfers Beach, Mavericks Beach, and Pillar Point Bluff. The Project would be constructed within Caltrans right-of-way, and would not alter existing or future land uses. Access along SR 1 and SR 92 would be managed and maintained during construction, with the exception of temporary lane closures and detours. Temporary impacts on traffic would be minimized by implementation of the Project's TMP, as discussed in Section 2.2.17.

The Project area is subject to the statutory mandates of multiple state, regional, and local plans and programs. A discussion of these plans and programs is presented next, along with an analysis of the Project's consistency with each.

Consistency with State, Regional, and Local Plans and Programs

State Scenic Highway Program

Although the segments of both highways in the Project area are eligible for State Scenic Highway designation, SR 1 and SR 92 in the Project area are not currently designated as part of a state scenic highway. Therefore, the Project would have no effect because those portions of SR 1 and SR 92 have not been designated as part of the State Scenic Highway Program.

Coastal Zone Management Act

The entire Project area is in the California Coastal Zone and is subject to the Coastal Zone Management Act of 1972 (16 United States Code [USC] 1451–1464, as amended), as well as to the California Coastal Act (CCA) of 1976, which was established to further protect the coastal zone. The policies established by the CCA include protection and expansion of public access and recreation, protection of agricultural lands, protection of scenic beauty, biological resources, and protection of property and life from coastal hazards. CCC is responsible for implementation and oversight under the CCA.

The CCA delegates power to local governments (i.e., counties and cities) to enact their own LCPs. The Project area is subject to the policies of two LCPs—those of San Mateo County and Half Moon Bay (San Mateo County 2013b; City of Half Moon Bay 2020). The Project area is under the permitting jurisdiction of the CCC, San Mateo County, and the City of Half Moon Bay, and would be required to undergo review of the pertinent LCPs and the CCC during the detailed design phase. Caltrans would coordinate with the CCC, San Mateo County, and the City of Half Moon Bay to ensure that the Project remains compatible with their plans and programs, with respect to the resource areas identified in this document.

The policies of the CCA give the highest priority to preservation and protection of prime agricultural land and timber lands. The next highest priorities are public recreation and visitor-serving facilities. The Project would not conflict with agricultural land uses or timber land uses in the Project area, as discussed in Section 2.2.2. The Project feature locations do not overlap with land zoned for either use, and no agricultural lands or timber lands are in the Project area. In addition, the Project features would not conflict or overlap with land designated as open space. The Project would not adversely affect the California Coastal Trail or its use in the long term. The Project features would not conflict with uses of the trail.

Key provisions of the CCA, San Mateo County LCP, and City of Half Moon Bay Local Coastal Land Use Plan are provided, along with an evaluation of Project permitting activities (see Table 2-3, Table 2-4, and Table 2-5).

Table 2-3 Key Provisions of the California Coastal Act

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30210	Maximum public access and recreational opportunities shall be provided.	The Project would not interfere with public access to recreational opportunities, such as adjacent open space and beaches. The Project would improve existing bicycle and pedestrian transportation facilities used by the public throughout the State Route 1 corridor in the Project area. The traffic management plan (discussed in Section 2.2.17) would account for any temporary impediments to access during construction, to maintain access.
Section 30211	Development shall not interfere with public access to the sea.	The Project would not interfere with public access to the sea and would improve existing transportation facilities that are used by the public to travel to coastal access points (see assessment of Section 30210).
Section 30212	New development projects shall provide for public access to the shoreline and along the coast.	The Project would rehabilitate and improve existing transportation facilities and would not expand the existing roadway. The Project would include new bicycle and pedestrian improvements (crosswalks, sidewalks, and curb cuts) that would help connect the public to existing trails and roads accessing the shoreline outside the Project area. Access to the coast already exists near the Project area, and the Project would not affect this access.
Section 30213	Lower-cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.	The Project would not affect access to visitor or recreational facilities. It would improve existing access to public recreational opportunities by enhancing pedestrian and bicycle facilities along the coast.
Section 30252	Public access	See assessments of Sections 30210, 30211, and 30212.
Section 30231	Biological productivity; water quality	The Project design and implementation of appropriate standard California Department of Transportation (Caltrans) Project features would minimize potential impacts on environmentally sensitive areas. Caltrans is proposing avoidance and minimization measures to address specific potential impacts on biological resources, hydrology, and water quality (see Sections 2.2.4 and 2.2.10) that could occur during construction.
Section 30233	Diking, filling, and dredging of wetlands	As stated in Section 2.2.4, the Project would not permanently dike, fill, or dredge wetlands.
Section 30235	Construction altering natural shoreline	The Project would not affect the existing natural shoreline.

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30240	Environmentally Sensitive Habitat Areas	The Project would have relatively minimal permanent or temporary impacts to local coastal program (LCP)/California Coastal Commission (CCC) jurisdictional riparian areas. Specific impacts would be estimated during the application for a Coastal Development Permit from the LCP or CCC. As outlined in Section 2.2.4, the Project would have less-than-significant impacts on biological resources, including special-status species, riparian habitats and sensitive natural communities, and wetlands. Avoidance and minimization measures BIO-13 and BIO-14 are proposed to delineate environmentally sensitive areas and to protect them during construction. In accordance with Section 30240 (b), work will be sited and designed to prevent impacts that would significantly degrade environmentally sensitive habitat areas. Caltrans will continue to coordinate with the CCC and local coastal planners to ensure that the Project remains consistent with applicable policy.
Section 30241-30242	Agricultural land	There are no Prime Farmland or lands under a Williamson Act contract in the Project area. As stated in Section 2.2.2.1, the Project area is not in but is adjacent to Unique Farmland and Prime Farmland at some locations. However, the Project area would be limited to the existing right-of-way at these locations and would not convert adjacent lands.
Section 30244	Archaeological/ paleontological resources	The Project would have no effects on any archaeological or paleontological resources.
Section 30251	Scenic and visual qualities	Based on the Project features and VIS-01, the Project would be compatible with existing scenic and visual quality.
Section 30254	Public works facilities	The Project does not propose to construct new or expand existing public works facilities, nor does it propose to form any special districts that would induce new development.
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 low- and moderate-income persons.	Caltrans would be in conformity with public access and public recreation policies. The Project would be a transportation Project and would not affect housing.
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.

Table 2-4 Key Provisions of the San Mateo County Local Coastal Program

Subject of Policy	San Mateo County Local Coastal Program Assessment
Locating and Planning New Development	The Project would not have any effect on growth, sensitive archaeological or paleontological resources; and would not require development of public services and infrastructure. The California Department of Transportation (Caltrans) would implement best management practices and avoidance and minimization measures to avoid or minimize the Project's potential effects on aesthetics, biological resources, and water quality in the Project area.
Public Works	The Project would upgrade and install highway system components on State Route (SR) 1 and SR 92, which are existing transportation facilities. Highway capacity would not be increased, as specified in Section 2.44b of the San Mateo Local Coastal Program (SMLCP). The alignments and scenic characteristics of SR 1 and SR 92 would be maintained, with implementation of Project features and VIS-01.
Housing	The Project would have no impacts on housing, as discussed in Section 2.2.14.
Energy	The Project would not include construction of any oil or gas wells, onshore oil facilities, pipelines or transmission lines, or alternative energy facilities.
Agriculture	The Project would be constructed within Caltrans' right-of-way and would not affect agricultural land or land zoned for timber harvest. The Project would not conflict with the Agricultural component of the SMLCP.
Aquaculture	The Project would not affect aquaculture facilities or construct any new aquaculture facilities.
Sensitive Habitats	Sensitive habitats exist in the Biological Study Area. However, Project activities would not result in impacts on these habitats, with implementation of Project features and the avoidance and minimization measures for biological resources presented in Appendix C.
Visual Resources	The Project would result in temporary impacts on visual resources during construction. With implementation of Project features and VIS-01, the new Project elements (guardrails) would be compatible with the existing visual quality and character (see Section 2.2.1).
Hazards	The Project is not anticipated to conflict with San Mateo County's Emergency Operations Plan, nor would it exacerbate risks associated with wildfire (see Section 2.2.20). A single location on SR 1 at Surfer's Beach in the Community of El Granada is susceptible to tsunami and seiche inundation and is in a Federal Emergency Management Agency Flood Zone. This Project would not create features that would worsen impacts on the surrounding areas from such hazards.
Shoreline Access	The Project components would not interfere with public access to recreational opportunities, such as adjacent open space and beaches. The traffic management plan (Section 2.2.17) would account for any temporary impediments to access during construction, to maintain access. Caltrans would coordinate with the County of San Mateo on recommendations provided in their Connect the Coastside Plan (San Mateo County 2021), where appropriate for the Project.
Recreation/Visitor Serving Facilities	See the assessment of shoreline access.
Commercial Fishing/ Recreational Boating	The Project would have no impact on commercial fishing or recreational boating.

Table 2-5 Key Provisions of the City of Half Moon Bay Local Coastal Land Use Plan

Subject of Policy	City of Half Moon Bay Local Coastal Land Use Plan Assessment
Social Equity and Environmental Justice	The Project would improve existing road surfaces and traffic operation system elements that would serve all users, and the Project would have no impact on social equity or environmental justice. As stated previously, the Project would not divide an established community.
Development	The Project would not conflict with the development policies of the Local Coastal Land Use Plan (LCLUP). The Project would not induce growth, change existing land use patterns, or conflict with the land use designations identified in Chapter 2 of the plan.
Public Works	The Project would not conflict with the LCLUP's public works, water system, sewer facilities, circulation, stormwater system, and management policies. Project features and standard California Department of Transportation (Caltrans) best management practices would maintain the existing facilities. In addition, key components of the Build Alternative would improve the drainage system in the Project area.
Agriculture	The Project would be constructed within Caltrans' right-of-way and would not affect agricultural land uses or farm worker housing.
Coastal Access and Recreation	The Project components would not interfere with public access to recreational opportunities, such as adjacent open space and beaches. Caltrans would coordinate with the County of San Mateo on recommendations provided in their Connect the Coastside Plan (San Mateo County 2021), where appropriate for the Project. The traffic management plan (Section 2.2.17) would account for any temporary impediments to access during construction, to maintain access.
Natural Resources	As shown in Sections 2.2.4 and 2.2.10, Project impacts on biological resources, hydrology, and water quality would be less than significant.
Environmental Hazards	The Project would not exacerbate environmental hazards associated with climate change, shoreline hazards such as tsunamis, seismic activity, flooding, or wildfire. Sections 2.2.20 and 2.3 discuss the Project's intersection with wildfire and climate change risks, respectively.
Cultural Resources	Caltrans' Professionally Qualified Staff determined that a Finding of No Adverse Effect with Standard Conditions – Environmentally Sensitive Area (ESA) is appropriate for the Project (see Section 2.2.5 and 2.2.18). No impacts on cultural resources or tribal cultural resources would occur with implementation of the ESA, as discussed in Section 2.2.5.
Scenic and Visual Resources	The Project would result in visual changes through roadway rehabilitation, Complete Streets Improvements, and upgrades to traffic operations and safety elements. However, as stated in Section 2.2.1, the Project is anticipated to result in a less-than-significant impact on visual character, with the implementation of Project features, and avoidance and minimization measures.

San Mateo County General Plan

The Project would adhere to the San Mateo County General Plan (San Mateo County 2013a) and align with the following policies, goals, and objectives by providing a safe, reliable transportation system for all users:

- **Goal and Objective (GO) 12.6:** Plan for a transportation system that provides for the safe, efficient, and convenient movement of people and goods in and through San Mateo County.
- **GO 12.7:** Create and maintain Complete Streets that serve all categories of transportation users and goods, providing safe, efficient, comfortable, and convenient travel along all streets through an integrated, balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the General Plan.
- **GO 12.9:** Provide for a balanced and integrated transportation system in the county that allows for travel by various modes and easy transfer between modes.
- **GO 12.11:** Balance and attempt to minimize adverse environmental impacts resulting from transportation system improvements in the county.
- **GO 4.1:** Protect and enhance the visual quality of and from shorelines of bodies of water, including lakes, reservoirs, streams, bays, ocean, and sloughs.

The Project would not cause a substantial adverse effect on coastal resources and is anticipated to have no significant environmental impact due to a conflict with the San Mateo County General Plan.

City of Half Moon Bay General Plan

The City of Half Moon Bay's General Plan is being updated (City of Half Moon Bay 2022). The analysis presented next is based on the adopted elements of the City's General Plan. The Project would be consistent with the following policies and goals of the City's General Plan and its 2013 Circulation Element Update (City of Half Moon Bay 2013):

- **Goal 1:** Develop a functional and cohesive transportation network.
    - *Policy 1-4:* Integrate area-wide drainage plans and water, sewer, and other utility lines into the planning and design of intersection and/or roadway improvements and any new roadways to support new residential or commercial uses in the city.
- **Goal 2:** Maintain safe and convenient vehicle access.
- **Goal 3:** Create and maintain Complete Streets.
    - *Policy 3-1:* Work collaboratively with Caltrans to provide safe and enhanced bicycle and pedestrian facilities crossings and along Highway 1 and SR 92
    - *Policy 3-2:* Promote the development of projects that incorporate all modes of transportation, accommodate all mode users, and facilitate balanced mode share use within the context of the community and the roadway facility purpose.

- *Policy 3-4:* Where appropriate, promote the installation of Intelligent Transportation Systems infrastructure to advance interoperable traffic signal controller systems, traveler information systems, parking management systems, and bicycle/ pedestrian/vehicle detection systems that support all modes of travel on the roadways.

- *Policy 3-6:* Provide programs and funding for maintenance and operations of the roadway network elements, including maintenance of pavement and bridge surfaces, maintaining traffic signal operations, restriping of bicycle and pedestrian pavement markings, and replacing failing bicycle/pedestrian/vehicle detectors.

- **Goal 4:** Foster and support pedestrian and bicycle travel.

The proposed improvements to the highway facilities of SR 1 and SR 92, and to the bicycle and pedestrian facilities (crosswalks, sidewalks, and curb cuts) would align with the goals and policies of the City's General Plan and 2013 Circulation Element Update. Therefore, the Project would be consistent with this plan.

The impact would be less than significant. No additional mitigation is required.

2.2.12 Mineral Resources

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

2.2.12.1 CEQA Significance Determinations for Mineral Resources

a) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?, and
b) Would the Project 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?

The Project would not be constructed in a known mineral resource zone. Project construction would take place in previously disturbed soil within the existing Caltrans right-of-way. According to the United States Geological Survey Mineral Resources On-Line Spatial Data, the Project area is not close to or on a known mineral resource (USGS 2022). No impacts would occur.

2.2.13 Noise

Question	CEQA Determination
a) Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than Significant Impact
b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?	Less than Significant Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	Less than Significant Impact

2.2.13.1 CEQA Significance Determinations for Noise

a) Would the Project result in 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?

The Project would be constructed within Caltrans' right-of-way, in both urban and rural areas of San Mateo County. The closest sensitive noise receptors would be residences and commercial businesses in the communities of Moss Beach, El Granada, and Miramar, within 0.5 mile north and south of Project locations. The Project would not be a Type I project under 23 CFR 772, because it would not alter the location of a roadway, alter the horizonal or vertical alignment of a roadway, or increase the number of through-traffic lanes on a roadway. It would not be a Type II project, because it would not be a project for noise abatement on an existing highway. Therefore, the Project would be a Type III project; no significant operational noise effects are anticipated, and no noise study would be required.

The Project could result in increases in noise during construction. However, the construction noise would be temporary and intermittent, and would be within acceptable levels for construction activity. In addition, in accordance with 2018 Caltrans Standard Specifications Section 14-8.02, noise from construction activities would not exceed a maximum noise level of 86 A-weighted decibels at a distance of 50 feet from 9 p.m. to 6 a.m.

The impact would be less than significant. No additional mitigation is required.

b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

The Project would cause no long-term increase in groundborne vibration or noise. During construction, the Project would cause minimal, temporary, and intermittent groundborne vibration and groundborne noise at levels that would be less than excessive. The impact would be less than significant. No additional mitigation is required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

Half Moon Bay Airport is adjacent to SR 1 in the Project area, between Capistrano Road and Marine Boulevard (PM 33.1 and PM 34.8). A small portion of SR 1 is in the 60 Community Noise Equivalent Level (CNEL) contour for the airport, and within the 2032 estimated 60 CNEL noise level contour (CCAG 2014). CNEL is the weighted average sound level over a 24-hour period with a penalty of 5 decibels (dB) added between 7 p.m. and 10 p.m. and a penalty of 10 dB added for nighttime hours between 10 p.m. and 7 a.m. These penalties are applied as a weighting factor to address greater noise sensitivity during those typically quieter periods. A CNEL of 65 or greater typically is considered unacceptable for a residential neighborhood. The Project would not affect the CNEL contours determined in the 2014 CCAG report. Project construction workers within the 60 CNEL noise contour for the airport during construction would be working adjacent to live traffic, operating heavy equipment at times, and using all appropriate health and safety personal protective equipment necessary and appropriate for the work being conducted. The Project would not expose people residing or working in the Project area to excessive noise levels. The impact would be less than significant. No additional mitigation is required.

2.2.14 Population and Housing

Question	CEQA Determination
a) Would the Project 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) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

2.2.14.1 CEQA Significance Determinations for Population and Housing

a) Would the Project 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)?

The Project would not involve construction of new residential buildings or businesses, and it would not extend transportation facilities that could induce population growth. Project activities would be limited to improving the existing transportation facility, increasing accessibility to existing transit stops, and enhancing nonmotorized modes of transportation. No impact would occur.

b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The Project would not remove or displace people or housing and would not necessitate construction of replacement housing elsewhere. No impact would occur.

2.2.15 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, 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

2.2.15.1 CEQA Significance Determinations for Public Services

a), b), c), d), and e)

Temporary traffic delays would be possible during Project construction, when lane closures and detours are implemented, which could affect emergency services. However, as discussed in Section 2.2.17, a TMP would be prepared to reduce temporary effects on traffic, and to ensure that access is maintained for emergency service providers and first responders.

The Project would not include elements that would induce population growth, as discussed in Section 2.2.14. No new demand for governmental facilities and services, such as fire protection, police protection, schools, or parks, would occur because of the Project. No impact would occur.

2.2.16 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?	Less than Significant Impact
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact

2.2.16.1 CEQA Significance Determinations for Recreation

a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

SR 1 in the Project area supports access to nearby Half Moon Bay State Beach, Wavecrest Open Space, J V Fitzgerald Marine Reserve, and Pillar Point Bluff. Half Moon Bay State Beach is owned and managed by the California Department of Parks and Recreation. Wavecrest Open Space is owned and managed by the Peninsula Open Space Trust. Both the J V Fitzgerald Marine Reserve and Pillar Point Bluff are owned and managed by the San Mateo County Parks Department. In general, the parks are open from 8 a.m. until sunset and allow hiking, bicycling, horseback riding, and walking dogs on leash.

The Project would provide safety improvements and multi-modal transportation enhancements along SR 1. The Project would not include features that would directly or indirectly result in an increase in the use of nearby recreational facilities. The Project would not increase the use of neighborhood parks, regional parks, or other nearby recreational facilities, and therefore it would not be anticipated to cause or accelerate deterioration of those facilities. The impact would be less than significant. No additional mitigation is required.

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?

The Project would not include recreational facilities or require construction or expansion of recreational facilities that could have an adverse physical effect on the environment. No impact would occur.

2.2.17 Transportation

Question	CEQA Determination
a) Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less than Significant Impact
b) Would the Project conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)?	Less than Significant Impact
c) Would the Project 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) Would the Project result in inadequate emergency access?	Less than Significant Impact

In the Project area, SR 1 is a two-lane undivided highway with two 12-foot lanes and 1- to 4-foot typical outside shoulders. SR 92 in the Project area is a four-lane divided highway of similar shoulder width.

2.2.17.1 CEQA Significance Determinations for Transportation

a) Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The Project would improve and enhance existing transit, roadway, bicycle, and pedestrian facilities in the Project area. The Project is being planned and designed to be constructed and operated to meet current Caltrans' Complete Streets policies, in accordance with Director's Policy 37 (Caltrans 2021g). The Project would be consistent with all applicable plans, including the Caltrans District 4 Bike Plan, Caltrans District 4 Pedestrian Plan, San Mateo County General Plan Transportation Policies, CCAG San Mateo County Comprehensive Bicycle and Pedestrian Plan, City of Half Moon Bay General Plan Circulation Element, and City of Half Moon Bay Bicycle and Pedestrian Master Plan. The Project development process ensures consistency with these plans through partnerships and coordination with local and regional development agencies.

The Project would enhance and improve accessibility at existing San Mateo County Transit District (SamTrans) facilities along SR 1, by paving transit stops at locations where no paved surface currently exists and connecting them via sidewalk to existing sidewalks. These enhancements would improve accessibility for all users and would be consistent with Caltrans' Complete Streets policies. SamTrans operates two bus routes in the Project area: Routes 17 and 18. Route 17 provides weekday and weekend service from Linda Mar to Pescadero, and Route 18 provides school day service from Miramontes Point Road to Main Street in Half Moon Bay. Caltrans would coordinate with SamTrans during construction to minimize the potential for delays to bus service along both routes.

Caltrans is proposing bicycle lane and intersection improvements throughout the Project area, including striping Class II bike lanes, completing connections for Class I bike paths, and improving intersections through curb improvements and crosswalk installations, as described in Sections 1.4.8 and 1.4.9 and shown on Figure 1-7. Caltrans would coordinate with the County of San Mateo on recommendations provided in their Connect the Coastside Plan (San Mateo County 2021), where appropriate for the Project. Caltrans would address temporary

impacts on existing facilities during construction by coordinating with local users through the Project's TMP.

The Project would improve accessibility for active multimodal transportation by providing a safer and more efficient means of traveling the SR 1 corridor in the Project area. The Project would not be anticipated to conflict with any existing or planed active transportation facilities. The impact would be less than significant. No additional mitigation is required.

b) Would the Project conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)?

Section 15064.3, subdivision (b) of the state CEQA guidelines specifies the criteria for analyzing transportation impacts. According to the regulation, transportation projects that reduce or have no impact on VMT should be presumed to cause a less-than-significant transportation impact. The Caltrans' Transportation Analysis under CEQA (TAC) guidance document provides screening criteria for determining whether a project would increase capacity (Caltrans 2020a). Based on the criteria listed under Section 5.1.1 of the TAC, the Project is not likely to lead to a measurable and substantial increase in vehicle travel. The impact would be less than significant. No additional mitigation is required.

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project would not alter the existing geometric design of SR 1 and SR 92. Project components would be limited to rehabilitating pavement, upgrading highway systems, and implementing Complete Streets elements. Therefore, no hazards are anticipated because of a geometric design feature. No impact would occur.

d) Would the Project result in inadequate emergency access?

The Project would have temporary traffic impacts on roadway access for all users during Project construction, from lane closures and detours that may affect emergency vehicle access.

Proposed Avoidance and Minimization Measure

Caltrans proposes the following measure to avoid and minimize impacts on traffic and emergency vehicles.

TRANS-01: Development of a Transportation Management Plan

Caltrans will develop a Project-specific TMP during the final design phase of the Project. The TMP will be prepared in accordance with Caltrans requirements and guidelines to minimize construction-related delays and impacts on emergency vehicles and the traveling public. The TMP will include the following provisions:

- Coordination with San Mateo County, the City of Half Moon Bay, and any other applicable local jurisdictions for notification of closures and detours
- Coordination with the California Highway Patrol and other local law enforcement

- Use of portable changeable message signs, the California Highway Patrol construction zone enhanced enforcement program, one-way traffic controls, and flaggers
- Continued access for emergency services
- Continued access to any residential driveways

The Project would incorporate the Project features and avoidance and minimization measure into the Project design, and would have less-than-significant impact.

2.2.18 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

This section references the Section 106 Closeout Memorandum and area of potential effects prepared for the Project (Caltrans 2021e; Caltrans 2021i).

2.2.18.1 CEQA Significance Determinations for Tribal Cultural Resources

a), and b) 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 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.

Caltrans, pursuant to Section 106 of the National Historic Preservation Act of 1966, determined that a Finding of No Adverse Effect with Standard Conditions – ESA (Caltrans 2021e) is appropriate for the Project, as discussed in Section 2.2.5. Caltrans contacted the Native American Heritage Commission (NAHC) on January 29, 2021, requesting a review of their Sacred Lands File to determine whether any known cultural resource sites are in or near the APE of the Project. The results of the Sacred Lands File were positive, and a list of Native American contacts with potential interest or information regarding the APE was provided. Initial consultation outreach in compliance with Section 106 of the National Historic Preservation Act and AB 52 regarding the Project was sent to all Native American contacts provided by the NAHC on January 28, 2021. One response was received on March 2, 2021, from the Indian Canyon Mutsun Band of Costanoan. The tribe indicated that the Project area is adjacent to an archaeological site identified as culturally sensitive and recommended that a Native American monitor and an archaeological monitor be present on site at all times for any disruptive surveys or earth-moving activities, and to also provide cultural sensitivity training at the beginning of the Project. The tribe was invited to participate in the subsurface archaeological testing conducted by the Caltrans Office of Cultural Resources on August 12, 2021; however, no response was received. Follow-up emails were sent to all other contacts on July 12 and 13, 2021; however, no responses have been received to-date. Consultation is ongoing throughout the life of the Project.

Caltrans proposes avoidance and minimization measures CUL-01, CUL-02, and CUL-03 in Section 2.2.5 and Project features (shown in Table 1-2) that would protect any historical or tribal resources that occur in the Project area. With implementation of Project features and the described avoidance and minimization measure incorporated into the Project design, the impact would be less than significant.

2.2.19 Utilities and Service Systems

Question	CEQA Determination
a) Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact
b) Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Would the Project 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) Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

2.2.19.1 CEQA Significance Determinations for Utilities and Service Systems

a), b), c), d), e)

The Project would not require installation of new utilities but would connect to existing utilities, to power closed-circuit television cameras, fixed-intersection cameras, and traffic monitoring systems. Existing utilities in the Project area may require temporary or permanent relocation. Any interruption of service associated with utility connections or relocations during construction would be temporary and short-term. If necessary, underground utility verification (known as potholing) would be completed during the design phase.

The Project would not include new development or uses that would require water supplies. The Project would generate a small amount of solid waste during construction. However, Caltrans would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste disposal.

No impacts would occur.

2.2.20 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?	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact

2.2.20.1 CEQA Significance Determinations for Wildfire

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

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

The Project area is entirely in Local Responsibility Areas, classified as Moderate and Very High Fire Severity Zones (CAL FIRE 2007). The Project would be subject to San Mateo County's EOP, as discussed in Section 2.2.9. The EOP provides guidelines for emergency response planning, preparation, training, and execution throughout the county. The Project would cause short-term construction-related traffic on SR 1. Caltrans would prepare a TMP to maintain the flow of traffic during construction, and to ensure priority access for emergency vehicles through the Project area. Therefore, a substantial reduction in emergency response times is not expected; after construction, no changes would occur to the existing capacity of the roadway that would affect an emergency response plan or evacuation plan. The impact would be less than significant. No additional mitigation is required.

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?, and

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?

The Project would not affect occupied structures. The Project would not require installation of associated infrastructure that would exacerbate fire risk in the Project area. During

construction, measures for minimizing fire risks would be incorporated and would follow state and federal fire regulations. No impacts would occur.

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?

Frequent landslides and erosion are known to occur along SR 1. Implementation of erosion control measures would be incorporated into the design of the Project, in compliance with all applicable regulations or as required by environmental permits issued to the Project by state and federal regulatory agencies. The Project's construction and operations would not alter the existing topography or create slopes that would increase susceptibility to wildfire hazards, including downslope or downstream flooding, or landslides. No impact would occur.

2.2.21 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 Impact
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Less than Significant Impact
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No Impact

2.2.21.1 CEQA Significance Determinations for Mandatory Findings of Significance

a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

The Project does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal species; nor does it have the potential to affect important examples of California history or prehistory. The Project would have less-than-significant impacts on biological or cultural resources because implementation of Project features and avoidance and proposed minimization measures would address any potential impacts in the Project area. Caltrans is proposing avoidance and minimization measure BIO-11 specifically to avoid impacts to the rare plant population of Ornduff's meadowfoam that is known to occur in the Project area. The impact would be less than significant.

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)?

The Project would be constructed in the vicinity of other past and planned Caltrans projects, as shown in Table 2-6. No capacity-increasing projects are in the Project vicinity. In addition, San Mateo County and the City of Half Moon Bay have programmed projects, and plans that recommend projects, in and adjacent to the Project area. These are described in Table 2-7.

Table 2-6 Past and Planned Caltrans Projects in the Region

Project Number and Title	Project Location	Project Description	Construction Year
EA 04 2K880 State Route (SR) 1 Traffic Operational Systems Improvement Project	SR 1 post mile (PM) 26.43/ 47.20	Provide emergency and incident-management-related information to the traveling public and Caltrans	2022
EA 04 0Q610 San Mateo SR 1 Safety Barrier Project	SR 1 PM 36.49/ 38.31	Traffic safety project to reduce run-off-the-road incidents	Anticipated to be 2024 to 2025
EA 04 2J790 SR 1 and SR 84 Structures and Scour Mitigation Project	SR 1 PM 28.9 and SR 84 PM 7.55	Retrofit scour critical bridges at the Pilarcitos Creek Bridge No. 35 0139L/R and on SR 84 at San Gregorio Creek Bridge No. 35 0166	Anticipated to be 2022 to 2023
EA 04 0Q670 Storm Drain System Repair	SR 1 PM 36.2	Repair damaged storm drain and restore eroded embankment near Montara, south of 9th Street	2023
EA 04 0Q440 Best Management Practices	SR 1 PM 44.0/ 48.0	Construct permanent best management practices to achieve statewide National Pollutant Discharge Elimination System permit compliance units for trash capture and Total Maximum Daily Load	2023
EA 1Q130 – Gray Whale Cove Pedestrian Crossing	SR 1 PM 37.8/ 38.0	Modifications to the Gray Whale Cove State Beach parking lot off SR 1 and the pedestrian crossing from the parking lot across the roadway to the beach, to improve pedestrian safety for beach users	N/A

Table 2-7 Local Plans and Projects in the Region

Plan or Project Title	Location	Plan or Project Description	Construction Year
Highway 1 Safety and Mobility Improvement Study (San Mateo County)	A 7-mile stretch of SR 1 in San Mateo, which includes the Project area (San Mateo County 2012)	The potential improvements of this endeavor include designated pedestrian crossings, left-turn lanes, acceleration lanes, and raised medians. San Mateo County's Connect the Coastside Plan, Plan Princeton, and Unincorporated San Mateo County Active Transportation Plan also include recommended projects.	N/A
Connect the Coastside (San Mateo County)	SR 1 and SR 92 in San Mateo County	Connect the Coastside makes recommendations to improve transportation safety and mobility for residents of the San Mateo Coast. These recommendations include pedestrian and bicycle facilities, such as the Highway 1 Multimodal Parallel Trail.	N/A

Plan or Project Title	Location	Plan or Project Description	Construction Year
Plan Princeton (San Mateo County)	The community of Princeton, San Mateo County	This is a draft update to the land use plan for the community of Princeton. It would be used as a basis for evaluating future development projects, with the goal of supporting and enhancing the lives of Princeton residents and visitors.	N/A
Unincorporated San Mateo County Active Transportation Plan (San Mateo County)	San Mateo County, to include unincorporated portions of the Project area	This plan establishes a framework for new active transportation projects in unincorporated San Mateo County. It includes pedestrian and bicycle recommendations to address gaps and enhance existing facilities.	N/A
Eastside Parallel Trail Expansion (City of Half Moon Bay)	City of Half Moon Bay, from Roosevelt Boulevard to Mirada Road	This project will extend an existing Class I path to connect with the proposed San Mateo County trail.	Unknown
Highway 1 Safety and Operational Improvements (City of Half Moon Bay)	City of Half Moon Bay, along SR 1	This project will implement operational and safety improvements to SR 1, to include new pedestrian facilities, a signalized intersection, and improvements to bus stop pullout areas.	2023
City of Half Moon Bay Bicycle and Pedestrian Master Plan (City of Half Moon Bay)	City of Half Moon Bay	This plan describes the existing bicycle and pedestrian network in the City of Half Moon Bay, and provides recommendations for future improvements.	N/A

The cumulative impact would be less than significant, and no additional mitigation is required.

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The Project is not anticipated to cause any additional substantial direct or indirect adverse impacts on human beings from the existing transportation facilities, and proposes features that would serve to protect and enhance the safety of users. No impact would occur.

2.3 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 CO_2, CH_4, N_2O, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, and various hydrofluorocarbons (HFCs). CO_2 is the most abundant GHG; although 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 United States 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.

2.3.1 Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

2.3.1.1 Federal

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

NEPA (42 USC Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

FHWA recognizes the threats that extreme weather, sea level change, 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 2019). 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.

The federal government has taken steps to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201), as amended by the Energy Independence and Security Act of 2007; and Corporate Average Fuel Economy (CAFE) Standards. This act established fuel economy standards for on-road motor vehicles sold in the United States. The United States Department of Transportation's National Highway Traffic and Safety Administration sets and enforces the CAFE standards based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States. The United States Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards 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).

U.S. EPA published a final rulemaking on December 30, 2021, that raised federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026, increasing in stringency each year. This rulemaking revised lower emissions standards that were established in June 2020 for model years 2021 through 2026 in the Safer Affordable Fuel-Efficient Vehicles Rule Part Two. The updated standards will result in avoiding more than 3 billion tons of GHG emissions through 2050 (U.S. EPA 2021a).

2.3.1.2 State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

- **EO S-3-05 (June 1, 2005):** The goal of this EO is to reduce California's GHG emissions to (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of AB 32 in 2006 and SB 32 in 2016.

- **AB 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006:** AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (H&SC Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

- **EO S-01-07 (January 18, 2007):** This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB readopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the governor's 2030 and 2050 GHG reduction goals.

- **SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection:** This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

- **SB 391, Chapter 585, 2009, California Transportation Plan (CTP):** This bill requires the state's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

- **EO B-16-12 (March 2012):** This order requires state entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

- **EO B-30-15 (April 2015):** This order establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure that California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent ($MMTCO_2e$). (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 GWP of CO_2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO_2.) Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every 3 years, and to ensure that its provisions are fully implemented.

- **SB 32, Chapter 249, 2016:** This bill codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

- **SB 1386, Chapter 545, 2016:** This bill declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's GHG reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

- **SB 743, Chapter 386 (September 2013):** This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on VMT. This is intended to promote the state's goals of reducing GHG emissions and traffic-related air pollution, and promoting multimodal transportation while balancing the needs of congestion management and safety.

- **SB 150, Chapter 150, 2017, Regional Transportation Plans (RTPs):** This bill requires ARB to prepare a report that assesses progress made by each metropolitan

planning organization in meeting their established regional GHG emission reduction targets.

- **EO B-55-18 (September 2018):** This order sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

- **EO N-19-19 (September 2019):** This order advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

2.3.1.3 Environmental Setting

The segment of SR 1 in the Project area is in Half Moon Bay and unincorporated areas in San Mateo County. This segment of SR 1 is in a semi-rural environment and is adjacent to both undeveloped and developed areas. SR 1 provides access to beaches, state parks, and national recreation areas. The majority of GHG emissions in the Project area are from vehicle use.

The BAAQMD's 2017 clean air plan addresses GHG emissions in the Project region. U.S. EPA is responsible for documenting GHG emissions nationwide; the ARB does so for the state, as required by H&SC Section 39607.4.

2.3.1.4 Greenhouse Gas Inventories

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. 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. 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. The 1990 2019 inventory found that overall GHG emissions were 6,558 million metric tons in 2019, down 1.7 percent from 2018 but up 1.8 percent from 1990 levels. Of these, 80 percent were CO_2, 10 percent were CH_4, and 7 percent were N_2O; the balance consisted of fluorinated gases. CO_2 emissions in 2019 were 2.2 percent less than in 2018, but 2.8 percent more than in 1990. As shown on Figure 2-1, the transportation sector accounted for 29 percent of GHG emissions in the United States in 2019 (U.S. EPA 2021b, 2021d).

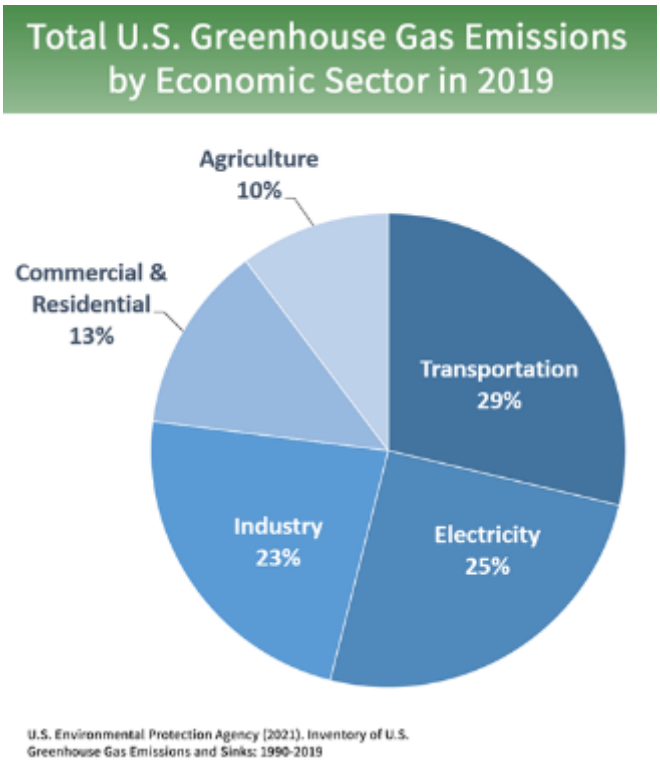

Figure 2-1 U.S. 2019 Greenhouse Gas Emissions

Source: U.S. EPA 2021c

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. The 2021 edition of the GHG emissions inventory reported emissions trends from 2000 to 2019. It found that total California emissions were 418.2 $MMTCO_2e$ in 2019, a reduction of 7.2 $MMTCO_2e$ since 2018 and almost 13 $MMTCO_2e$ below the statewide 2020 limit of 431 $MMTCO_2e$. The transportation sector (including intrastate aviation and off road sources) was responsible for about 40 percent of direct GHG emissions, a 3.5 $MMTCO_2e$ decrease from 2018 (Figure 2-2). Overall statewide GHG emissions declined from 2000 to 2019 despite growth in population and state economic output (Figure 2-3) (ARB 2021).

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. 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 AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

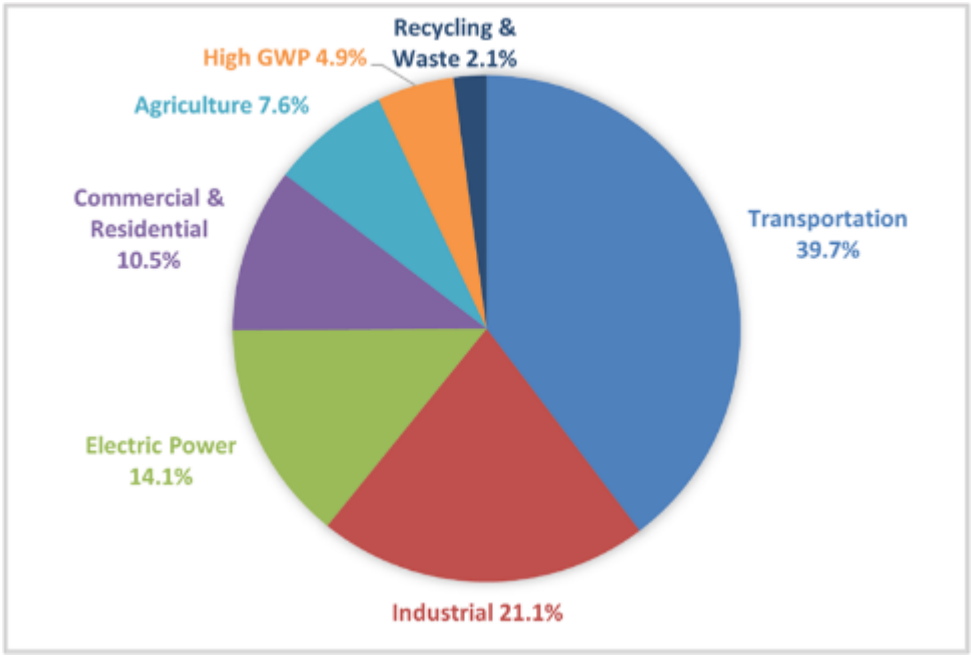

Figure 2-2 California 2018 Greenhouse Gas Emissions by Economic Sector

Source: ARB 2021

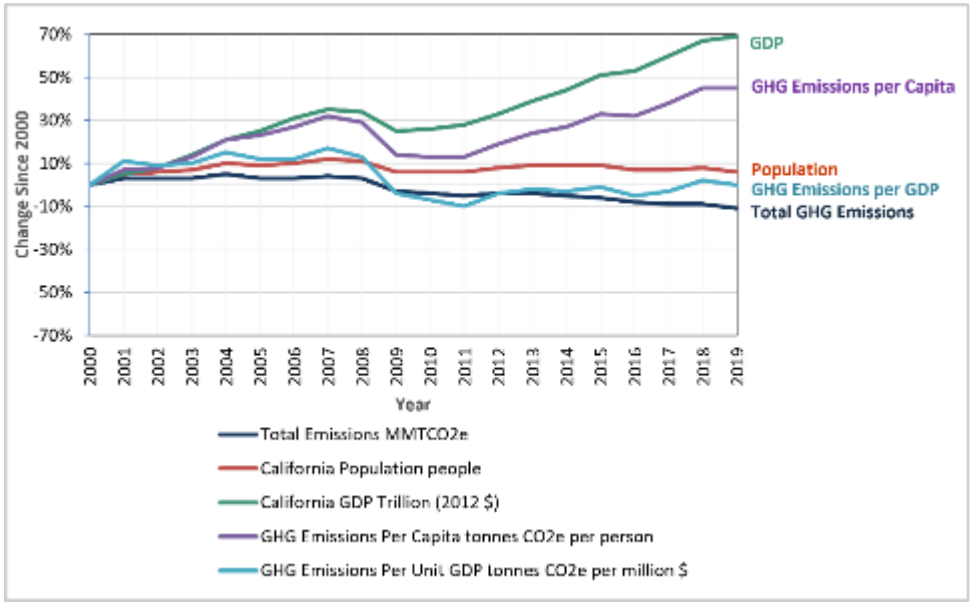

Figure 2-3 Change in California GDP, Population, and GHG Emissions Since 2000

Source: ARB 2021

2.3.1.5 Regional Plans

ARB sets regional targets for California's 18 MPOs to use in their RTP/SCS to plan future projects that would cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The Metropolitan Transportation Commission (MTC) is the MPO and regional transportation planning agency for the Project region, with GHG reduction targets of 10 percent by 2020 and 19 percent by 2035. The Project would be included in the MTC RTP, Plan Bay Area 2050.

The 2017 clean air plan, *Spare the Air, Cool the Climate* (BAAQMD 2017), defines strategies for climate protection in the Bay Area that support goals laid out in Plan Bay Area 2050 (ABAG and MTC 2021). Those goals include transforming the transportation sector to reduce motor vehicle travel; promote zero-emissions vehicles and renewable fuels; adopt fixed- and flexible-route transit services; and support infrastructure and planning that enable a large share of trips by bicycling, walking, and transit. Local climate action plans also offer GHG reduction strategies.

San Mateo County adopted an energy efficiency climate action plan in 2013, with a GHG emissions reduction target of 17 percent below 2005 emissions levels by 2020. The climate action plan aligns with GHG emissions reduction goals and policies of the San Mateo County General Plan that focus on energy efficiency, waste reduction, and efficient land use in the unincorporated county (San Mateo County 2013a).

2.3.1.6 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation 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.

The CEQA guidelines generally address GHG emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, Section 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

As stated in Section 2.2.17, the Project would not be capacity increasing and is not expected to lead to a measurable and substantial increase in vehicle travel. 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 VMT would occur.

Although 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.

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

GHG emissions are responsible for causing climate change. As discussed in Section 2.2.8, GHG emissions would be generated during Project construction. Caltrans estimates that, over a construction period of 14 months, the total amount of CO_2 produced would be 516.01 tons. The Project's total CO_2e emissions[1] (CO_2, CH_4, and N_2O) would be 476.38 metric tons.

Because GHG emissions associated with construction of this Project are not substantial, this Project is not expected to contribute a significant cumulative impact. Some GHG emissions may be associated with ongoing maintenance operations from the use of vehicles and gas or diesel equipment. Nonetheless, maintenance operations would occur periodically and are not expected to contribute significantly to GHG emissions.

All construction contracts include Caltrans Standard Specifications related to air quality. Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the Project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

CEQA Conclusion

As stated in Section 2.2.8.1 above, the Project would not lead to an increase in operational GHG emissions (i.e., increased emissions from vehicles in the Project area); and short-term GHG emissions resulting from construction activities would not lead to long-term adverse effects. Therefore, the impact would be less than significant. Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

[1] Gases are converted to CO_2e by multiplying by their GWP. Specifically, GWP is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period, relative to the emissions of 1 ton of CO_2.

2.3.2 Greenhouse Gas Emissions Reduction Strategies

2.3.2.1 Statewide Efforts

In response to AB 32, 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, low-carbon and cleaner future, while maintaining a robust economy (ARB 2022).

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 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 CO_2 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. This order 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 Draft for public comment in October 2021.

2.3.2.2 Caltrans Activities

Caltrans continues to be involved with the Governor's Climate Action Team as 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 Investments

The *California Action Plan for Transportation Infrastructure* (CAPTI) builds on EOs signed by Governor Newsom in 2019 and 2020 and 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 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 2020–2024 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 2021f).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans' decisions and activities. Caltrans' Greenhouse Gas Emissions and Mitigation Report (Caltrans 2020b) provides a comprehensive overview of Caltrans' emissions. The report documents and evaluates current Caltrans procedures and activities that track and reduce GHG emissions and identifies additional opportunities for further reducing GHG emissions from Caltrans-controlled emission sources, in support of Caltrans and state goals.

2.3.2.3 Project-Level GHG Reduction Strategies

Implementation of Caltrans Standard Specifications—such as complying with air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the Project contract—and the use of construction BMPs would result in reducing GHG emissions from Project construction activities.

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

maintenance and rehabilitation activities. The following measures would be implemented for the Project, to reduce GHG emissions and potential climate change impacts from the Project:

- regular vehicle and equipment maintenance;
- limiting idling of vehicles and equipment on site;
- if practicable, recycling nonhazardous waste and excess material, and if recycling is not practicable, disposing the material; and
- using solar-powered signal boards, if feasible.

Caltrans Standard Specifications Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the Project, and to certify that they are aware of and would comply with all ARB emissions reduction regulations (see PF-AQ-03 in Table 1-2).

A TMP will be prepared during the design phase to minimize traffic disruptions from Project construction. Minimizing traffic delays during construction will help reduce GHG emissions from idling vehicles (see avoidance and minimization measure TRANS-01).

BMPs for air quality will be incorporated during construction activities (e.g., limiting the idling of vehicles and equipment on site, and maintaining vehicles and equipment).

2.3.3 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; and 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. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

2.3.3.1 Federal Efforts

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

The Fourth National Climate Assessment, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways."

The United States Department of Transportation (U.S. DOT) Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to "integrate

consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of U.S. DOT to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions" (U.S. DOT 2011).

FHWA order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014) established FHWA policy 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 foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

2.3.3.2 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) is the state's effort to "translate the state of climate science into useful information for action." It provides information that will 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 state's approach recognizes that the consequences of climate change occur at the intersections of people, nature, and infrastructure. The Fourth Assessment reports that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an increase of 2.7 to 8.8 degrees Fahrenheit in average annual maximum daily temperatures, with impacts on agriculture, energy demand, natural systems, and public health; a two-thirds decline in water supply from snowpack and water shortages that will impact agricultural production; a 77 percent increase in average area burned by wildfire, with consequences for forest health and communities; and large-scale erosion of up to 67 percent of Southern California beaches and inundation of billions of dollars' worth of residential and commercial buildings due to sea-level rise (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.

In 2008, then-governor Arnold Schwarzenegger recognized the need when he issued EO S-13-08, focused on sea-level rise. Technical reports on the latest sea-level rise science were first published in 2010 and updated in 2013 and 2017. The 2017 projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the State of California Sea-Level Rise Guidance Update in 2018. This EO also gave rise to the California Climate Adaptation Strategy (2009), updated in 2014 as Safeguarding California: Reducing Climate Risk (Safeguarding California Plan), which addressed the full range of climate change impacts and recommended adaptation strategies. The Safeguarding California Plan was updated in 2018 and again in 2021 as the California Climate Adaptation Strategy, incorporating 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 2021 California Climate

Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, nature-based climate solutions, use of best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2021).

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change in addition to sea-level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach.

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

2.3.4 Caltrans Adaptation Efforts: Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the state highway system that are 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.

2.3.5 Project Adaptation Analysis

The January 2018 *Caltrans Climate Change Vulnerability Assessments* for the District 4 region (Caltrans 2018), which covers the nine-county San Francisco Bay Area, was consulted regarding climate stressors in the Project area. The report and accompanying Climate Change Vulnerability Assessment map tool (Caltrans 2017) identified the following climate change conditions for the Project area for the analysis years 2025, 2055, and 2085.

2.3.5.1 Sea-Level Rise Analysis

The California Ocean Protection Council (OPC) provides the most current accepted estimates for sea-level rise in California. Projected sea-level rise based on the OPC State of California Sea Level Rise Guidance 2018 Update (OPC 2018) at the nearest tide gauge (San Francisco)—assuming a high emissions scenario to the end of the century (i.e., 2100), with a 1-in-200 (0.5 percent) probability—indicates that sea-level rise will rise to meet or exceed 6.9 feet above current conditions. To analyze how this level of rise would impact the Project area, the NOAA Sea-Level Rise viewer (https://coast.noaa.gov/digitalcoast/tools/slr.html) and Point Blue's Our Coast Our Future viewer (https://ourcoastourfuture.org/hazard-map/) were used to review SR 1 in the Project area. Both tools were examined using the nearest sea-level

rise scenario to the OPC projection (identified above) that was available in each viewer (7 feet of modeled sea-level rise above the current mean higher high water tidal elevation using the NOAA viewer, and 6.6 feet [with a 100-year storm event] using the Point Blue viewer). Caltrans reviewed the entire SR 1 corridor using both tools and determined that the Project area is not subject to sea-level rise inundation at current tidal elevations and is not in an area that would be subject to inundation under the estimated potential sea-level increase by the end of the century under a scenario of reasonably likely sea-level rise and storm surge.

Caltrans notes that Surfer's Beach adjacent to SR 1 in the community of El Granada is vulnerable to erosion and wave run up at locations under the sea-level rise scenarios examined for this analysis. However, the projected sea-level rise scenario to the end of the century would extend beyond the service life of the proposed pavement work at this location. In the projected scenarios reviewed for this analysis, there is potential for inundation of the beach and pedestrian path on the western side of SR 1 by end of century. Low levels of inundation are projected to skirt the SR 1 shoulder at Coronado Street by the year 2100. Flood risk management at Surfer's Beach to address inundation of these adjacent features over the long term would require substantial shoreline protection efforts that are outside the purpose and need, and the service life, of the work proposed for the Project. Caltrans welcomes coordination and expects to participate in discussions with stakeholder groups to identify long-term solutions to address sea-level rise at Surfer's Beach that may also affect the existing transportation facilities.

Based on Caltrans review, no direct impacts on transportation facilities from sea-level rise are anticipated from the Project.

2.3.5.2 Floodplains

Three FEMA Flood Insurance Report Maps, all dated August 2, 2017, overlap the Project area. These include map numbers 06081C0119F, 06081C0138F, and 06081C0252F. The Project is not expected to have any impact on the base floodplains that are identified in the maps.

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Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. This helps planners to determine the necessary scope of environmental documentation and the level of analysis required; and to identify potential impacts, avoidance and minimization measures, and related environmental requirements. Consultation and public participation for this Project will be accomplished through a variety of formal and informal methods. This chapter summarizes the results of Caltrans' preliminary efforts to fully identify, address, and resolve Project-related issues through early and continuing coordination.

3.1 Consultation and Coordination with Public Agencies

3.1.1 United States Fish and Wildlife Service Consultation Summary

Caltrans is the lead federal agency for Section 7 consultation. Consultation with USFWS has not begun yet. Official species lists were acquired on April 21, 2022 (Appendix D).

Designated critical habitat is presented in the BSA for California red-legged frog, and the Project may have indirect adverse effects on California red-legged frog and San Francisco garter snake. Caltrans made the following preliminary determinations for USFWS jurisdictional resources:

- the Project *may affect, but is not likely to adversely affect,* California red-legged frog;
- the Project *may affect, but is not likely to adversely affect*, federally designated critical habitat for California red-legged frog; and
- the Project *may affect, but is not likely to adversely affect*, San Francisco garter snake.

A Biological Assessment was submitted to USFWS on July 21, 2022, pursuant to Section 7 of FESA, for potential Project effects on California red-legged frog and San Francisco garter snake. The Project has potential for take of these species in the form of harassment or harm with Project implementation. The term "take" under FESA means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Because the San Francisco garter snake is also a fully protected species under California Fish and Game Code, take of that species will be limited to harassment, and all other forms of take will be avoided through implementation of Project-specific measures, as described in Section 2.2.4. No effects on any other listed, candidate, or proposed wildlife species are anticipated. Caltrans biologists have worked closely with Project engineers to limit the size and scope of the Project. The Project is proposing specific avoidance and minimization measures that would be implemented to reduce impacts on listed, candidate, and proposed wildlife species and their habitats (Appendix C). By implementing these measures, Caltrans anticipates minimal adverse direct impacts on California red-legged frog and its habitat, and San Francisco garter snake. USFWS is expected to issue its Biological Opinion during the project's final design and permitting phase.

3.1.2 National Marine Fisheries Service Consultation Summary

Caltrans obtained official National Marine Fisheries Service (NMFS) species lists on April 21, 2022 (Appendix D) The Project overlaps with several waterways that may or are known to support federally listed California Central Coast DPS steelhead (*Oncorhynchus mykiss irideus*) and its critical habitat. No other federally listed fish species have potential to occur in the Project area. Caltrans has identified in the BSA two waterways that are known to support steelhead (Pilarcitos Creek and Arroyo Leon), three waterways that may support steelhead (Frenchman's Creek, Denniston Creek, and Deer Creek), and two waterways that are not likely to support steelhead (Arroyo de en medio and an unnamed tributary to Denniston Creek). The actions proposed by the Project are not anticipated to impact individuals or habitat for NMFS regulated species. Caltrans has determined that the Project would have no effect on steelhead or its critical habitat, and Section 7 consultation with NMFS is not required.

Caltrans had determined that NMFS-regulated EFH is present in the Pilarcitos Creek BSA for Coho salmon. However, the Project would have no effect on Coho salmon. Work in the vicinity of this waterway would be limited to guardrail replacement in the current footprint of road shoulder areas, and there would be no impacts to aquatic or riparian habitat at those locations. Implementation of the Project features would prevent siltation or water quality degradation from impacting EFH. No effects to EFH are anticipated, and consultation with NMFS will not be needed.

3.1.3 California Department of Fish and Wildlife Consultation Summary

State-listed species that have the potential to occur in the BSA include San Francisco garter snake. Coordination with CDFW will occur during the Project planning phase, as part of a CFGC Section 1602 Lake and Streambed Alteration Agreement. No state-level take of CESA species is anticipated.

3.1.4 Coastal Zone Coordination

As stated in Section 2.2.11, the Project is under the jurisdiction of the CCC, San Mateo County LCP (San Mateo County 2013b), and City of Half Moon Bay local coastal land use plan (City of Half Moon Bay 2020).

Caltrans' coordination in the Coastal Zone has included discussing potential locations for Project components with various public agencies. Caltrans had a discussion with the City of Half Moon Bay regarding potential variable message sign locations that were previously requested by the City along SR 92. This discussion was held when variable message signs were still being considered by the Project. Variable message signs on SR 1 and SR 92 have been removed from the Project's Build Alternative design.

On September 23, 2021, Caltrans hosted a joint preliminary stakeholder outreach meeting to provide a summary of the Project, as well as the nearby San Mateo SR 1 Safety Barrier Project (EA 0Q610/Project ID 0418000123). Attendees included representatives from the following agencies:

- CCC
- San Mateo County
- City of Half Moon Bay
- Midcoast Community Council

- Half Moon Bay Coastside Chamber of Commerce

Caltrans presented an overview of both projects and solicited feedback and questions from the meeting attendees. Attendees voiced both support and concerns, and asked questions regarding the Project components. Caltrans will continue to coordinate with all stakeholders as the Project moves forward.

On March 28, 2022, Caltrans hosted a follow-up stakeholder outreach meeting to provide updates on the Project ahead of the public circulation of the draft environmental document. Attendees included representatives from the following offices and agencies:

- The Office of Assemblymember Kevin Mullin
- San Mateo County Sheriff's Department
- California Department of Forestry and Fire Protection (CAL FIRE)
- CCC
- San Mateo County
- City of Half Moon Bay
- Midcoast Community Council
- Half Moon Bay Coastside Chamber of Commerce

Caltrans gave a slide presentation that included an overview of the 0Q130 Project scope, visual simulations, schedule, and budget to coastal stakeholder groups for follow-up outreach and Project coordination. The second half of the meeting was open discussion. Attendees asked questions about Project components, and voiced concerns regarding the proposed variable message signs. Caltrans determined that it would carry this Project forward without including the variable message signs, but will continue to consider them on future efforts along the SR 1 corridor. Caltrans will continue to coordinate with all stakeholders as the Project moves forward.

On April 13 and 14, 2022, Caltrans held three separate meetings with stakeholder groups, including the CCC, CAL FIRE, the California State Assembly, California Highway Patrol, San Mateo County Planning Department, the City of Half Moon Bay, the Half Moon Bay Coastside Chamber of Commerce, and the Midcoast Community Council. These meetings were held to receive feedback on the Project.

3.2 Circulation, Review, and Comment on the Initial Study

Public input on the Project was solicited during the review period for the IS, which lasted from July 8, 2022, to August 8, 2022. Additionally, comments were accepted after the close of this review period. A number of methods were used to notify the public of the availability of the Draft IS/ND, including sending out mailers to local residents near the proposed Project area; posting the draft initial study document on its District 4 website; posting the document on CEQA-Net; transmitting notification letters to state and local elected officials, non-elected state and federal officials, and direct stakeholder groups in advance of circulation; and by sending notification to agencies with interest through its CEQA posting on the State Clearinghouse. During the review period, Caltrans held a virtual public hearing on July 21, 2022, to share information about the Project and obtain feedback on the Draft IS/ND from interested parties. All formal comments are addressed, and responses published in this Final IS/ND in Appendix F.

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Appendix A. Project Element Mapbook

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APPENDIX A
Project Work Areas

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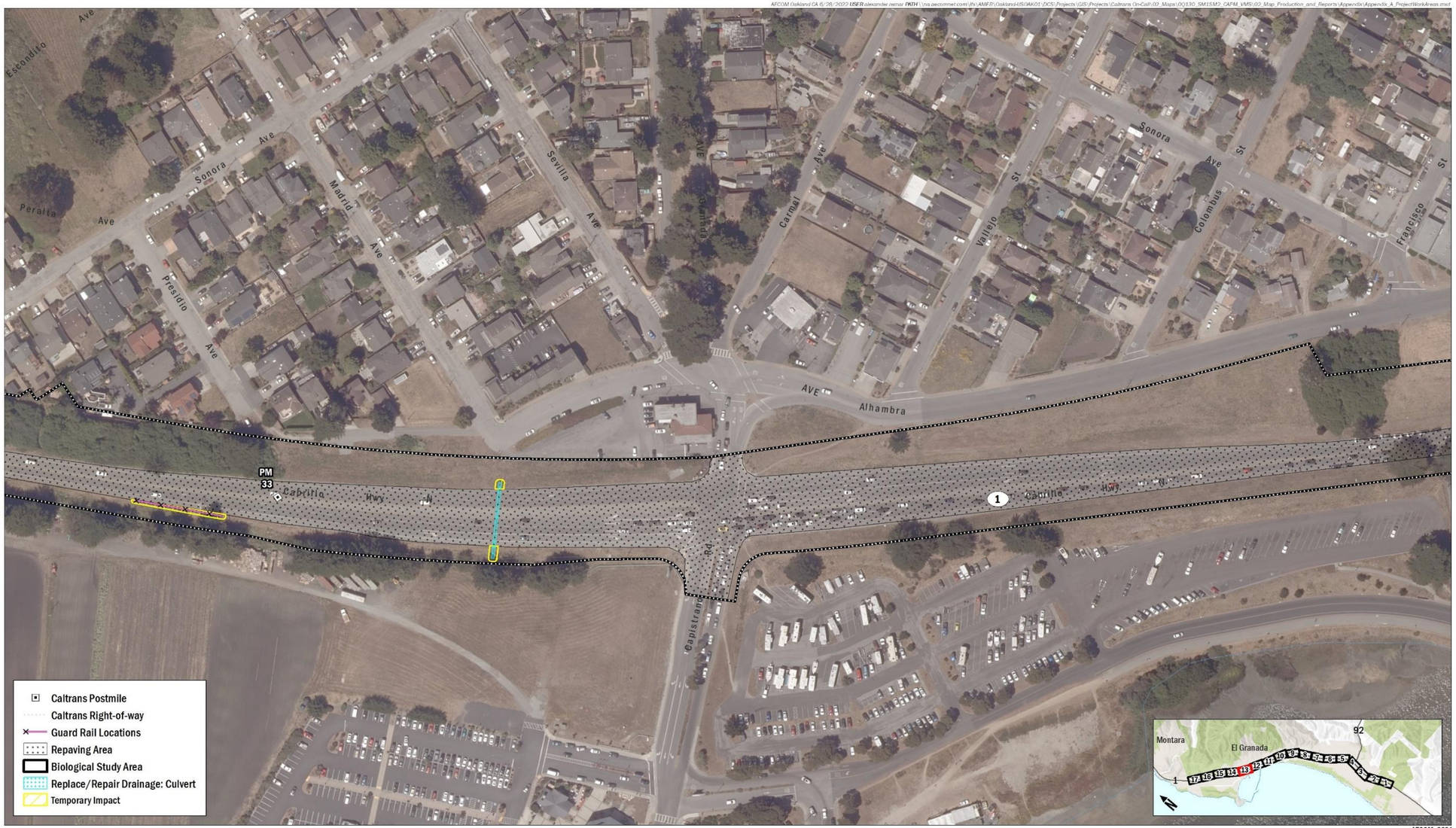

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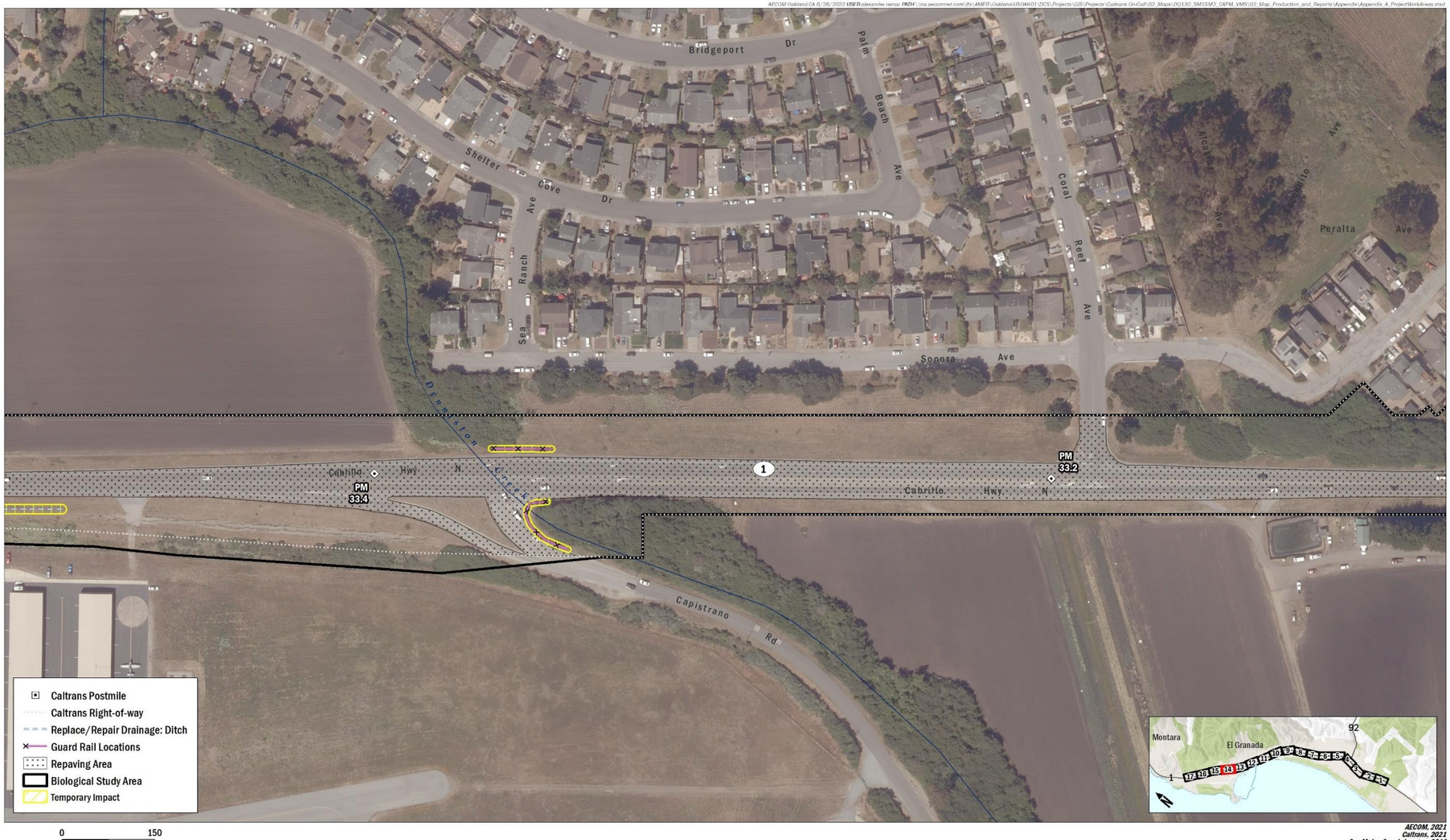

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Appendix B Potential for Special-Status Plant and Animal Species to Occur in the BSA

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Potential for Special-Status Plant Species to Occur in the BSA

Table B-1 Special-Status Plant Species: Listed or Proposed Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description/ Bloom Period/Elevation Range	Habitat Present/ Absent	Potential to Occur/Rationale
San Mateo thorn-mint	*Acanthomintha duttonii*	FE/SE/CRPR List 1B.1	Serpentinite, chaparral and valley and foothill grassland. Blooms: April through June. Elevation range 50 to 300 m.	Absent	**None.** Outside the elevation range and no suitable habitat. Not observed during botanical surveys.
Blasdale's bent grass	*Agrostis blasdalei*	--/--/CRPR List 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Blooms: May through July. Elevation range 0 to 150 m.	Absent	**None.** No suitable habitat. Not observed during botanical surveys.
Franciscan onion	*Allium peninsulare* var. *franciscanum*	--/--/CRPR List 1B.2	Clay, volcanic, often serpentinite, cismontane woodland and valley and foothill grassland. Blooms: May and June. Elevation range 52 to 3,000 m.	Present	**Low.** Outside the elevation range and habitat is limited; nearest CNDDB occurrence is 7 miles away and not observed during botanical surveys.
Bent-flowered fiddleneck	*Amsinckia lunaris*	--/--/CRPR List 1B.2	Clay, volcanic, often serpentinite, cismontane woodland and valley and foothill grassland. Blooms: May through June. Elevation range 52 to 3,000 m. Blooms March through June. Elevation range 3 to 500 m.	Absent	**None.** There is no suitable habitat and no CNDDB occurrences within 10 miles and not observed during botanical surveys.
Anderson's manzanita	*Arctostaphylos andersonii*	--/--/CRPR List 1B.2	Broad-leafed upland forest, chaparral, north coast coniferous forest. Blooms November through May. Elevation range 60 to 760 m.	Absent	**None.** Outside the elevation range and the nearest CNDDB occurrence is over 3 miles away. Not observed during botanical surveys.
Montara manzanita	*Arctostaphylos montaraensis*	--/--/CRPR List 1B.2	Chaparral (maritime), Coastal scrub. Blooms January through March. Elevation range 80 to 500 m.	Absent	**None.** Outside the elevation range and no suitable habitat. Not observed during botanical surveys.
Kings Mountain manzanita	*Arctostaphylos regismontana*	--/--/CRPR List 1B.2	Broad-leafed upland forest, chaparral, north coast coniferous forest. Blooms December through April. Elevation range 305 to 730 m.	Absent	**None.** Outside the elevation range and not observed during botanical surveys.

Common Name	Scientific Name	Status	General Habitat Description/ Bloom Period/Elevation Range	Habitat Present/ Absent	Potential to Occur/Rationale
Coastal marsh milk-vetch	*Astragalus pycnostachyus* var. *pycnostachyus*	--/--/CRPR List 1B.2	Coastal dunes (mesic), coastal scrub, marshes and swamps (coastal salt, streamsides). Blooms (April) June through October. Elevation range 0 to 30 m.	Absent	**None.** Outside the elevation range and no coastal dunes, coastal scrub or marshes and therefore no suitable habitat. Not observed during botanical surveys.
Franciscan thistle	*Cirsium andrewsii*	--/--/CRPR List 1B.2	Broad-leafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Blooms: March through July. Elevation range 0 to 150 m.	Present	**Low.** Nearest CNDDB occurrence is over 7 miles away and not observed during botanical surveys.
Fountain thistle	*Cirsium fontinale* var. *fontinale*	FE/SE/CRPR List 1B.1	Serpentinite seeps, chaparral (openings), Cismontane woodland and valley and foothill grassland. Blooms: May through October. Elevation range 45 to 175 m.	Absent	**None.** Outside the elevation range and no suitable habitat; nearest CNDDB occurrence is 5 miles away. Not observed during botanical surveys.
San Francisco collinsia	*Collinsia multicolor*	--/--/CRPR List 1B.2	Sometimes serpentinite, closed-cone coniferous forest, coastal scrub. Blooms: (February) March through May. Elevation range 30 to 250 m.	Absent	**None.** Outside the elevation range and no suitable habitat; nearest CNDDB occurrence is over 4.8 miles away. Not observed during botanical surveys.
Western leatherwood	*Dirca occidentalis*	--/--/CRPR List 1B.2	Broad-leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, riparian forest, riparian woodland. Blooms January through March. Elevation ranges 50 to 400 m.	Present	**Low.** Nearest CNDDB occurrence is less than a mile away. Habitat is present but none were observed during botanical surveys.
San Mateo woolly sunflower	*Eriophyllum latilobum*	FE/SE/CRPR List 1B.1	Cismontane woodland (often serpentinite, on roadcuts). Blooms: May and June. Elevation range 45 to 150 m.	Absent	**None.** Outside the elevation range and no suitable habitat; nearest CNDDB occurrence is 5 miles away and not observed during botanical surveys.
Hillsborough chocolate lily	*Fritillaria biflora* var. *ineziana*	--/--/CRPR List 1B.1	Cismontane woodland, valley and foothill grassland. Blooms: March and April. Elevation range 150 to 150 m.	Absent	**None.** Outside the elevation range and nearest CNDDB occurrence is over 3 miles away.
Fragrant fritillary	*Fritillaria liliacea*	--/--/CRPR List 1B.2	Often serpentinite, Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland. Blooms: February through April. Elevation range 3 to 410 m.	Absent	**None.** Nearest CNDDB occurrence is over 4 miles away and habitat is not suitable nor observed during botanical surveys.

Common Name	Scientific Name	Status	General Habitat Description/ Bloom Period/Elevation Range	Habitat Present/ Absent	Potential to Occur/Rationale
Short-leaved evax	*Hesperevax sparsiflora* var. *brevifolia*	--/--/CRPR List 1B.2	Coastal bluff scrub (sandy), coastal dunes and coastal prairie. Blooms: March through June. Elevation range 0 to 215 m.	Absent	**None.** Outside the elevation range and habitat is not suitable; not observed during botanical surveys.
Marin western flax	*Hesperolinon congestum*	FT/ST/CRPR List 1B.1	Serpentinite, chaparral and valley and foothill grassland. Blooms: April through July. Elevation range 5 to 370 m.	Absent	**None.** No suitable habitat at either site, the nearest CNDDB occurrence is over 5 miles away and none were observed during botanical surveys.
Kellogg's horkelia	*Horkelia cuneata* var. *sericea*	--/--/CRPR List 1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub. Blooms: April through September. Elevation range 10 to 200 m.	Absent	**None.** No suitable habitat and none were observed during botanical surveys.
Point Reyes horkelia	*Horkelia marinensis*	--/--/CRPR List 1B.2	Coastal dunes, coastal prairie, and coastal scrub. Blooms: May through September. Elevation range 5 to 755 m.	Absent	**None.** No suitable habitat and none were observed during botanical surveys.
Island tube lichen	*Hypogymnia schizidiata*	--/--/CRPR List 1B.3	Closed-cone coniferous forest, chaparral. No blooming period. Elevation range 360 to 755 m.	Absent	**None.** Outside the elevation range and no suitable habitat. None were observed during botanical surveys.
Perennial goldfields	*Lasthenia californica* ssp. *macrantha*	--/--/CRPR List 1B.2	Coastal bluff scrub, coastal dunes and coastal scrub. Blooms: January through November. Elevation range 5 to 520 m.	Absent	**None.** No suitable habitat and none were observed during botanical surveys.
Coast yellow leptosiphon	*Leptosiphon croceus*	--/CC/CRPR List 1B.1	Coastal bluff scrub and coastal prairie. Blooms: April through June. Elevation range 10 to 150 m.	Absent	**None.** Outside the elevation range and no suitable habitat. None were observed during botanical surveys.
Crystal Springs lessingia	*Lessingia arachnoidea*	--/--/CRPR List 1B.2	Cismontane woodland, coastal scrub and valley and foothill grassland. Blooms: July through October. Elevation range 60 to 200 m.	Absent	**None.** Outside the elevation range; no CNDDB occurrences within 10 miles. None were observed during botanical surveys.
Ornduff's meadowfoam	*Limnanthes douglasii* ssp. *ornduffii*	--/--/CRPR List 1B.1	Meadows and seeps. Blooms: November through May. Elevation range 10 to 20 m.	Present	**High.** Suitable habitat and known occurrences in northern section of the alignment. These occurrences represent a portion of the only known population of this species.

Common Name	Scientific Name	Status	General Habitat Description/ Bloom Period/Elevation Range	Habitat Present/ Absent	Potential to Occur/Rationale
Arcuate bush-mallow	*Malacothamnus arcuatus*	--/--/CRPR List 1B.2	Chaparral and Cismontane woodland. Blooms: April through September. Elevation range 15 to 355 m.	Absent	**None.** No suitable habitat and none were observed during botanical surveys.
Woodland woolythreads	*Monolopia gracilens*	--/--/CRPR List 1B.2	Serpentine, broad leafed upland forest (openings), chaparral (openings), Cismontane woodland, North Coast coniferous forest (openings), and valley and foothill grassland. Blooms: February through July. Elevation range 100 to 1,200 m.	Absent	**None.** Outside the elevation range and none were observed during botanical surveys.
White-rayed pentachaeta	*Pentachaeta bellidiflora*	FE/SE/CRPR List 1B.1	Cismontane woodland, Valley and foothill grassland (often serpentinite). Blooms: March through May. Elevation range 35 to 620 m.	Absent	**None.** No suitable habitat; nearest CNDDB occurrence is over 5 miles away. None were observed during botanical surveys
Choris' popcornflower	*Plagiobothrys chorisianus* var. *chorisianus*	--/--/CRPR List 1B.2	Chaparral, coastal prairie, coastal scrub. Blooms: March through June. Elevation range 3 to 160 m.	Present	**Low.** The nearest CNDDB occurrence to the Pilarcitos Creek is 0.5 mile away. The habitat at Pilarcitos Creek is marginal for this species, however none were observed during botanical surveys.
Oregon polemonium	*Polemonium carneum*	--/--/CRPR List 2B.2	Coastal prairie, coastal scrub and lower montane coniferous forest. Blooms: April through September. Elevation range 0 to 1,830 m.	Absent	**None.** There are no nearby CNDDB occurrences within 10 miles of the Project site.
Hickman's cinquefoil	*Potentilla hickmanii*	FE/SE/CRPR List 1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic), marshes and swamps (freshwater). Blooms: April through August. Elevation range 10 to 149 m.	Absent	**None.** Outside the elevation range; nearest CNDDB occurrence is over 5 miles away. The habitat at Pilarcitos Creek seems to be unsuitable for this species. None were observed during botanical surveys.
Chaparral ragwort	*Senecio aphanactis*	--/--/CRPR List 2B.2	Chaparral, cismontane woodland and coastal scrub. Blooms: January through April (May). Elevation range 15 to 800 m.	Absent	**None.** No suitable habitat; nearest CNDDB occurrence is over 5 miles away. None were observed during botanical surveys.
Scouler's catchfly	*Silene scouleri* ssp. *scouleri*	--/--/CRPR List 2B.2	Coastal bluff scrub, Coastal prairie and valley and foothill grassland. Blooms: (March through May)June through August (September). Elevation range 0 to 600 m.	Absent	**None.** No suitable habitat; nearest CNDDB occurrence is over 5 miles away. None were observed during botanical surveys.

Common Name	Scientific Name	Status	General Habitat Description/ Bloom Period/Elevation Range	Habitat Present/ Absent	Potential to Occur/Rationale
San Francisco campion	*Silene verecunda* ssp. *verecunda*	--/--/CRPR List 1B.2	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Blooms: (February) March through June (August). Elevation range 30 to 645 m.	Absent	**None.** The nearest CNDDB occurrence to the Pilarcitos Creek is 4 miles away. The habitat at either site does not seem suitable for the species. None were observed during botanical surveys.
San Francisco owl's-clover	*Triphysaria floribunda*	--/--/CRPR List 1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. Blooms: April through June. Elevation range 10 to 160 m.	Present	**Low.** The nearest CNDDB occurrence to the Pilarcitos Creek is 4.6 miles away. The habitat at Pilarcitos Creek does not seem suitable for the species. None were observed during botanical surveys.
Coastal triquetrella	*Triquetrella californica*	--/--/CRPR List 1B.2	Coastal bluff scrub and coastal scrub. No bloom period. Elevation range 10 to 100 m.	Absent	**None.** Outside the elevation range; nearest CNDDB occurrence is over 9 miles away. The habitat does not appear to be suitable for this species and none were observed during botanical surveys.

Notes:

CNDDB = California Natural Diversity Database
CRPR = California Rare Plant Rank:
- List 1B.1 = Rare throughout range; more than 80 percent of occurrences threatened
- List 1B.2 = Rare throughout range; 20 to 80 percent of occurrences threatened
- List 1B.3 = Rare throughout range; less than 20 percent of occurrences threatened
- List 2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere, 20 to 80 percent of occurrences threatened.

FE = federal endangered
FT = federally threatened
m = meters
SE = state endangered
ST = state threatened

Table B-2 Special Status Bird Species with Potential to Occur in the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Potential to Occur/Rationale
Long-eared owl	*Asio otus*	--/SSC	They build stick nests in trees or cliffs, in abandoned squirrel nests or on the ground and forage in grasslands, shrublands, coniferous forests or deciduous forests.	P	**Low.** The nearest CNDDB occurrence is over 10 miles. Despite the low numbers of occurrences, the trees and forest habitat in the Project footprint could be potentially suitable habitat for them to build their stick nests.
Burrowing owl	*Athene cunicularia*	-- /SSC	Inhabits open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Typically nests in mammal burrows.	Absent	**None.** Not suitable habitat for this species.
Marbled murrelet	*Brachyramphus marmoratus*	FT/SE	[Nesting Trees] Nests inland from coast in old-growth redwood dominated forests.	Absent	**None.** No suitable nesting habitat. Surveys indicate that suitable old growth redwood trees, or large redwood trees with suitable platforms for nesting are not present.
Western snowy plover	*Charadrius nivosus*	FT/SSC	Nests on sandy beaches, salt pond levees, and shores of large alkali lakes.	Absent	**None.** None of these nesting habitats are present in the BSA.
Black swift	*Cypseloides niger*	--/SSC	Requires specialized forested areas near rivers where nests are behind waterfalls or damp cliffs.	Absent	**None.** No suitable waterfalls or damp cliffs occur in the BSA for suitable nesting habitat.
American peregrine falcon	*Falco peregrinus anatum*	FD/SD, FP	[Nesting Habitat] Open country including tundra, coastal, mountainous, and forested regions; nests on rocky cliff ledges, large trees or tall urban structures near water	Absent	**Low.** There are no cliff ledges or tall urban structures. There are large alder trees at Pilarcitos Creek near the coastline and some open habitat areas nearby which are marginally suitable for this species.
Saltmarsh common yellowthroat	*Geothlypis trichas sinuosa*	--/SSC	Resident of San Francisco Bay region in fresh and saltwater marshes and riparian areas.	Absent	**None.** There are no saltmarshes or riparian areas near San Francisco Bay in BSA.
Bald eagle	*Haliaeetus leucocephalus*	FD/SE, FP	Nests primarily in large trees, usually within 1 mile of water; forages along ocean shore, lake margins, and large rivers.	Present	**Low.** The closest CNDDB occurrence is from 6 miles away. Pilarcitos Creek is nearby the Pacific Ocean shoreline. However due to lack of large trees with stick nests, it is unlikely that this species would nest here.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Potential to Occur/Rationale
California black rail	*Laterallus jamaicensis coturniculus*	--/ST, FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays.	Absent	**None.** There are no freshwater or saltwater marshes, meadows or shallow margins.
Alameda song sparrow	*Melospiza melodia pusillula*	--/SSC	Resident of the borders between saltmarsh and upland habitats within the south arm of San Francisco Bay.	Absent	**None.** BSA is near San Francisco Bay or near saltmarsh habitats. The habitat is not suitable for this species.
California Ridgway's rail	*Rallus obsoletus*	FE/SE, FP	Saltwater and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay.	Absent	**None. P**roject sites are not near San Francisco Bay or near saltmarsh habitats. The habitat is not suitable for this species in BSA.
Bank swallow	*Riparia riparia*	--/ST	[Nesting] Bank Swallows nest in fresh banks or earthen walls, and on occasion buildings, and forage insects over fields, streams, wetlands, farmlands, and still water.	Absent	**None.** There are no fresh banks of earthen walls or buildings for this species to nest in BSA. The nearest CNDDB occurrence is over 6 miles away.
California least tern	*Sterna antillarum browni*	FE/SE, FP	Nests along the coast on open beaches from San Francisco Bay south to northern Baja California. Forages in coastal and estuarine waters	Absent	**None.** There are no beaches in BSA for this species to nest.
Short-tailed albatross	*Phoebastria albatrus*	FE/SSC	Nests off islands in Japan and spend most of their lives at sea.	Absent	**None.** The BSA is not close to areas where this species nests.

Notes:

BSA = biological study area
CNDDB = California Natural Diversity Database
FD = Federally Delisted
FE = federal endangered
FP = fully protected
FT = federally threatened
SD = State Delisted
SE = state endangered
SSC = state species of special concern
ST = state threatened

Table B-3 Special Status Mammal Species with Potential to Occur in the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present /Absent	Potential to Occur/Rationale
Pallid bat	*Antrozous pallidus*	--/SSC	Found in low elevations in California, foraging in grasslands, scrub, open woodlands, and forests. Roosts in caves, crevices, mines, and hollow trees.	Present	**Low**. The BSA provides marginal potential foraging and roosting habitat in trees and forests. However, the nearest CNDDB occurrences is over 4 miles away.
Townsend's big-eared bat	*Corynorhinus townsendii*	--/SSC	Throughout California in a wide variety of habitats, but almost always near caves or abandoned mines, and other roosting areas (sometimes in abandoned buildings or large tree cavities). They can be found in pine forests and arid desert scrub habitats. Most common in mesic sites.	Absent	**None.** No caves or abandoned mines have been found in the BSA and there are no abandoned buildings. Unlikely for them to use any tree cavities.
Southern sea otter	*Enhydra lutris nereis*	FT/FP	In marine environments along the California coast from Half Moon Bay to Santa Barbara.	Absent	**None.** There are no marine environments in the BSA.
Hoary bat	*Lasiurus cinereus*	--/--	Prefers open habitats or habitat mosaics, with access to trees for roosting and open areas or habitat edges for feeding	Absent	**Low.** The trees in the BSA are in forested areas lacking open areas that are not preferred by this species.
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	--/SSC	Occupies forested habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats.	Present	**Low.** The riparian woodland and forested habitats in the BSA provides potential habitat for this species. However, no stick nests were observed in the BSA during Project field surveys.
Big free-tailed bat	*Nyctinomops macrotis*	--/SSC	Breeds in Mexico, Texas, New Mexico and southern Arizona. Prefers rugged, rocky terrain. Roosts in buildings, caves and occasionally in holes in trees.	Absent	**None.** There is no suitable habitat for this species in BSA.
Salt-marsh harvest mouse	*Reithrodontomys raviventris*	FE/SE, FP	Occurs only in saline emergent wetlands and tributaries of San Francisco Bay. Associated with stands of pickleweed (Salicornia).	Absent	**None.** There is no suitable habitat for this species in BSA.
American badger	*Taxidea taxus*	--/SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Absent	**Low.** This species prefers open habitats whereas the habitats in the BSA are dense with vegetation and in moister areas.

Notes:

BSA = biological study area
CNDDB = California Natural Diversity Database
FE = federal endangered
FP = fully protected
FT = federally threatened
SE = state endangered
SSC = state species of special concern

Table B-4 Special Status Reptile Species with Potential to Occur in the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Potential to Occur/Rationale
Green sea turtle	*Chelonia mydas*	FT/--	Shallow tropical and subtropical waters and coastlines.	Absent	**None.** There is no suitable marine aquatic habitat or beaches for this species in BSA.
Western pond turtle	*Emys marmorata*	--/SSC	Northern California and Oregon. Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation. Nests in nearby uplands.	Present	**Low.** Aquatic habitat in creeks is potentially suitable for this species, however, will not be adversely affected by this Project.
San Francisco garter snake	*Thamnophis sirtalis tetrataenia*	FE/SE, FP	Heavily vegetated freshwater wetlands and ponds with available basking habitat. Known range limited to San Mateo and Santa Cruz counties. Feeds on amphibians such as California red-legged frog.	Present	**Moderate.** The riparian area at Pilarcitos Creek is heavily disturbed and frequented by human activity. The freshwater creeks and riparian zones may provide potential dispersal habitat.

Notes:

BSA = biological study area
FE = federal endangered
FP = fully protected
FT = federally threatened
SE = state endangered
SSC = state species of special concern

Table B-5 Special Status Amphibian Species with Potential to Occur in the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Potential to Occur/Rationale
California tiger salamander	*Ambystoma californiense*	FT/ST	Occupies underground mammal burrows in grasslands and woodlands and migrates to freshwater ponds and vernal pools to reproduce.	Absent	**None.** There are no grassland or woodland areas with mammal burrows that would provide suitable upland habitat nor are there suitable freshwater ponds or vernal pools for breeding habitat for this species at BSA. The nearest CNDDB occurrence is over 8 miles away.
Santa Cruz black salamander	*Aneides niger*	--/SSC	Occurs in mixed deciduous woodland, coniferous forests, coastal grasslands. Found under rocks near streams, in talus, under damp logs, and other objects (CalHerps 2019).	Absent	**None.** The Project is outside of the known range of the species, and suitable habitat is not present.
California giant salamander	*Dicamptodon ensatus*	--/SSC	Occurs in wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages.	Absent	**None.** Habitat for adults and sub-adults is not present in the BSA in the form of cold permanent, semi-permanent stream and coastal forest habitats.
Foothill yellow-legged frog	*Rana boylii*	--/SE, SSC	Partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	Absent	**None.** The creeks in the BSA lack rocky substrate to be suitable for this species.
California red-legged frog	*Rana draytonii*	FT/SSC	Dense, emergent, and riparian vegetation associated with deep (0.7 m), still or slow-moving water.	Present	**High.** Habitat for adults and sub-adults are present in the creeks, pools and riparian vegetation and variety of habitats present at each BSA. Multiple CNDDB occurrences within 1 mile of Pilarcitos Creek Bridge.
Red-bellied newt	*Taricha rivularis*	--/SSC	Rapid flowing streams with rocky substrate in proximity to redwood forests. Known range from Humboldt County to Sonoma County along the coast with potential isolated population in Stevens Creek watershed in Santa Clara County.	Absent	**None. o**utside the known range for this species**.**

Notes:

BSA = biological study area
CNDDB = California Natural Diversity Database
FT = federally threatened
m = meters
SE = state endangered
SSC = state species of special concern
ST = state threatened

Table B-6 Special Status Fish Species with Potential to Occur in the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Potential to Occur/Rationale
Tidewater goby	*Eucyclogobius newberryi*	FE/SSC	Inhabits estuaries of the Pacific Coast in areas of aquatic vegetation.	Absent	**None.** There are no estuaries in the BSA or suitable habitat for this species.
Delta Smelt	*Hypomesus transpacificus*	FT/SE	Sacramento/San Joaquin Delta, seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	Absent	**None.** No suitable habitat in the BSA and outside the known range of this species.
Coho salmon – Central California Coast ESU	*Oncorhynchus kisutch pop. 4*	FE/SE	Unimpeded, anadromous coastal watercourses, from Punta Gorda to San Francisco Bay, including the bay.	Absent	**None. T**his species is not expected to occur in any of the watersheds within the BSA.
Steelhead – Central California Coast DPS	*Oncorhynchus mykiss irideus pop. 8*	FT/--	Unimpeded, anadromous coastal watercourses, from Russian River, south to Soquel and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	Present	**High.** This species is known to occur in portions of the Pilarcitos Creek watershed, and is likely to occur is Frenchman's and Denniston Creeks.
Steelhead – Central California Coast DPS designated critical habitat			Critical Habitat for this species was designated in 2005. Includes many streams in San Mateo County.	Present	**High.** Designated Critical habitat is present at Pilarcitos, Frenchman's, and Denniston Creek.
Longfin smelt	*Spirinchus thaleichthys*	FC/ST	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater	Absent	**None.** No suitable habitat for this species in the BSA and outside its known range.

Notes:

BSA = biological study area
DPS = distinct population segment
ESU = evolutionarily significant unit
FC = federal candidate
FE = federal endangered
FT = federally threatened
ppt = parts per thousand
SE = state endangered
SSC = state species of special concern
ST = state threatened

Table B-7 Special Status Invertebrate Species with Potential to Occur in the Biological Study Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Potential to Occur/Rationale
obscure bumble bee	*Bombus caliginosus*	--/--/--	Grassy coastal prairies and coast range meadows along the Pacific Coast, from southern California to southern British Columbia.	Absent	**Low.** There is not suitable habitat in the BSA for this species.
Crotch bumble bee	*Bombus crotchii*	--/SC	Inhabits open grassland and scrub habitats and nesting occurs underground. Occurs from northern California to Mexico border.	Absent	**Low.** There is not suitable open habitat in the BSA for this species.
Western bumble bee	*Bombus occidentalis*	--/SC	Inhabits open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Typically nests in underground burrows or other cavities.	Absent	**Low.** There is not suitable open habitats in the BSA for this species.
San Bruno Elfin Butterfly	*Callophrys mossii bayensis*	FE/--	Inhabits rocky outcrops and cliffs in coastal scrub on the San Francisco Peninsula, endemic to this habitat in California.	Absent	**None.** There are no rocky outcrops and cliffs in coastal scrub in the BSA; outside the known range of this species.
Bay checkerspot butterfly	*Euphydryas editha bayensis*	FT/--	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco bay.	Absent	**None.** There are no serpentine grasslands or any of the host plants for this species in the BSA. The BSA is outside the known range of this species.
Edgewood Park micro-blind harvestman	*Microcina edgewoodensis*	--/--	Serpentine rocks in grassland adjacent to scrub oaks.	Absent	**None.** There are no serpentine grasslands or any of the host plants for this species in the BSA; outside the known range of this species.
Mission blue butterfly	*Plebejus icarioides missionensis*	FE/--	Coastal chaparral and grasslands where host plants (lupine spp.) and nectar plants occur.	Absent	**None.** There are no chaparral or grassland habitats or any of the host plants for this species in the BSA; outside the known range of this species.
Myrtle's silverspot butterfly	*Speyeria zerene myrtleae*	FE/--	Coastal sand dunes or prairie habitat within 3 miles of the coast that are sheltered by wind. Range is from San Mateo County to mouth of Russian River.	Absent	**None.** There are no coastal sand dunes or prairie habitat that is suitable for this species in the BSA.

Notes:

BSA = biological study area
FE = federal endangered
FT = federally threatened
SC = state candidate

Appendix C. Environmental Commitments Record

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Table C-1. SR 1 0Q130 Avoidance and Minimization Measures

Category	Number	Task	Description	Timing	Mitigation for significant impacts under CEQA?
Biology	BIO-01	Riparian Vegetation Protection	All riparian habitat in the Project area will be delineated as an environmentally sensitive area (ESA), and no construction activities will occur outside of the immediate work area in riparian habitat ESAs. At the roadway crossings of Denniston, Frenchman's, and Pilarcitos Creeks, the California Department of Transportation (Caltrans) will limit riparian vegetation removal to the immediate work area. Trees or shrub trimming at those locations will be limited to removing only branches that overhang the roadway.	• Project Approval and Environmental Document (PAED) • Plans, Specifications, and Estimates (PS and E) • Construction	No
Biology	BIO-02	Seasonal Avoidance	Construction activities off paved surfaces in areas of potential California red-legged frog habitat (ESAs) will be performed between June 15 and October 15 to minimize impacts on this species. Designated staging areas may be used outside of this work window once cleared by a USFWS-approved biologist or their designee and fenced, as appropriate.	Construction	No
Biology	BIO-03	Proper Use of Erosion Control Devices	To avoid entanglement or injury of California red-legged frog or San Francisco garter snake, erosion control materials that use plastic or synthetic monofilament netting will not be used.	• PS and E • Construction	No
Biology	BIO-04	Avoidance of Entrapment	To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day with plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks at an angle no greater than 30 degrees. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. All replacement pipes, hoses, culverts, or similar structures less than 12 inches in diameter will be closed, capped, or covered upon entry to the Project site. All similar structures greater than 12 inches must be inspected before they are subsequently moved, capped, and/or buried.	Construction	No
Biology	BIO-05	Biological Monitor	The names and qualifications of proposed biological monitor(s) will be submitted to the USFWS for approval prior to the start of construction. The USFWS-approved biological monitor(s) will keep a copy of the USFWS biological opinion in their possession when on site. Through communication with the resident engineer, the USFWS-approved biological monitor(s) will be on site during all work that could reasonably result in take of California red-legged frog or other special-status species. The USFWS-approved biological monitor(s) will have the authority to stop work that may result in the unauthorized take of special-status species. If the USFWS-approved biological monitor exercises this authority, the USFWS will be notified by telephone and e-mail message within one working day.	• PAED • PS and E • Construction	No
Biology	BIO-06	Pre-Construction/Daily Surveys	Pre-construction surveys for special-status species will be conducted by the USFWS-approved biological monitor no more than 14 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal and fence installation) in the Project footprint. These efforts will consist of walking surveys of the Project limits and, if possible, accessible adjacent areas within at least 50 feet of the Project limits. The USFWS-approved biological monitor will investigate potential cover sites when it is feasible and safe to do so. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the Project limits will be documented and relocated to an adequate cover site in the vicinity, with the exception of fully protected species. Safety permitting, the USFWS-approved biological monitor will also survey areas of disturbed soil for signs of California red-legged frog or San Francisco garter snake within 30 minutes following initial disturbance of the given area. The need for further pre-construction surveys will be determined by the biologist based on site conditions and realized construction timelines.	• PAED • PS and E • Construction	No

Category	Number	Task	Description	Timing	Mitigation for significant impacts under CEQA?
Biology	BIO-07	Protocol for Species Observation	The USFWS-approved biological monitor(s) will have the authority to halt work through coordination with the resident engineer if California red-legged frog or San Francisco garter snake are observed in the Project footprint. The resident engineer will keep construction activities suspended in a 50-foot radius of the California red-legged frog or San Francisco garter snake in any construction area where the biologist has determined that a potential take of the species could occur. Work will resume after observed listed individuals leave the site voluntarily, the biologist determines that no wildlife is being harassed or harmed by construction activities, or the wildlife is relocated by the biologist to a release site using USFWS-approved handling techniques.	Construction	No
Biology	BIO-08	Handling of California Red-Legged Frog	If a California red-legged frog is discovered, the resident engineer and USFWS-approved biological monitor will be immediately informed. • If a California red-legged frog gains access to a construction zone, work will be halted immediately within 50 feet until the animal leaves the site or is captured and relocated by the USFWS-approved biological monitor. • The USFWS will be notified within one working day if a California red-legged frog or San Francisco garter snake is discovered in the construction site. • The captured California red-legged frog will be released in appropriate habitat outside of the construction area but near the capture location. The release habitat will be determined by the USFWS-approved biological monitor. • The USFWS-approved biological monitor will take precautions to prevent introduction of amphibian diseases in accordance with the Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog (USFWS 2005).	Construction	No
Biology	BIO-09	Rare Plant Survey	Caltrans will conduct a rare plant survey in the Biological Study Area (BSA) to determine the presence or absence of special-status plant species. 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 are targeted to occur in March, late April/May, and June of 2022. All plants will be identified to a level needed to verify protected status. Any listed plants discovered in the field will be mapped and included as ESAs in the final plans and specifications. Caltrans will consult with the appropriate wildlife agency with jurisdiction and will obtain necessary permits or authorizations if unavoidable take of a listed plant species incidental to the proposed work would occur.	• PAED • PS and E	No
Biology	BIO-10	Pre-Construction Plant Survey	A Project biologist with appropriate botany experience will perform a site survey in ESAs where construction disturbance could occur before start of work. Special-status plants will be flagged and avoided where possible. Caltrans will coordinate with appropriate wildlife agencies with jurisdiction prior to construction if incidental take of a listed plant species is unavoidable, and will obtain any necessary permits or authorizations for direct impacts. Caltrans will adhere to the requirements of all permits and authorizations issued for the Project.	• PAED • PS and E • Construction	No
Biology	BIO-11	Drainage Work Exclusion for Ornduff's Meadowfoam	Caltrans will avoid drainage system rehabilitation or other work in unpaved areas that could affect soil hydrology within 3,000 feet of where Ornduff's meadowfoam is known to occur. If Caltrans later determines that rehabilitating the drainage system at this location is necessary, it will complete a soil hydrology study, drainage system design, and mitigation plan in coordination with the California Department of Fish and Wildlife that result in no net loss of this species or its habitat.	• PAED • PS and E • Construction	No
Biology	BIO-12	Wetlands and Waters Construction Work Windows	Work in wetlands, waters, and riparian habitat will be limited to June 15 through October 15 to avoid or minimize impacts to waters of the United States, waters of the state, riparian habitat, and special-status species habitat.	Construction	No
Biology	BIO-13	ESAs	Wetlands, waters, riparian habitat, designated critical habitat, and special-status species habitat—including that of Ornduff's meadowfoam—will be delineated as ESAs on contract plans and defined in contract specifications. ESAs outside of the proposed work areas will be specifically identified to avoid during construction. Where work must occur in or adjacent to an ESA, an approved biologist with stop-work authority will be present.	• PAED • PS and E • Construction	No
Biology	BIO-14	ESA Fencing	Caltrans will install fencing to outline and protect ESAs prior to the start of construction. ESA provisions will be implemented as a first order of work and will remain in place until all construction activities are completed in the work area.	• PAED • PS and E • Construction	No

Category	Number	Task	Description	Timing	Mitigation for significant impacts under CEQA?
Cultural Resources	CUL-01	ESA Action Plan	• An ESA Action Plan will be developed for the Project to protect the two archaeological resources in the APE in their entirety. Before construction, the ESA Action Plan will be reviewed and approved by the Cultural Studies Office (CSO) at Caltrans' headquarters. The Caltrans archaeologist will ensure that the ESAs are included and described clearly in the environmental document. The ESAs will be included in the Project's Environmental Commitment Record. • The Caltrans archaeologist will work in coordination with the other responsible parties to ensure that the ESA is represented and depicted in the plans, specifications, and estimates package. The package and plans will be reviewed throughout the design process, so that the ESAs are accurately represented and depicted. The Caltrans archaeologist will ensure that the ESA Action Plan is included in the resident engineer's pending file. • All responsible parties will ensure that the ESAs are discussed during the preconstruction meeting, led by a qualified archaeologist and Native American tribes who may want to administer the training as well. The importance of the ESAs will be discussed with construction personnel, stressing that no construction activity (including storage of equipment or materials) may occur in the ESAs, and that workers must remain outside of the ESAs at all times. In addition, historic preservation laws that protect archaeological sites and artifacts against any disturbance or removal will be discussed. • The resident engineer will notify the Caltrans Office of Cultural Resource Studies staff (Caltrans project archaeologist) at least 2 weeks in advance of the start of construction. A field review of the ESA locations will be conducted. The Caltrans project archaeologist will mark the ESA locations with the contractor.	• PAED • PS and E • Construction	No
Cultural Resources	CUL-02	Construction Activities for ESA Protection	• Temporary, high-visibility fencing will be installed by the contractor at least 1 week before beginning any ground disturbance. The Caltrans archaeologist will coordinate this activity with the resident engineer. The Caltrans archaeologist will be present to supervise and monitor this activity. • The Caltrans archaeologist will conduct spot inspections and site visits to ensure the integrity of the ESAs. The Caltrans archaeologist will notify the State Historic Preservation Officer, CSO, and consulting Native American parties within 48 hours of any ESA, post-review discovery, or inadvertent effect, to immediately determine how the breach or discovery will be addressed.	Construction	No
Cultural Resources	CUL-03	Post-Construction Activities:	The resident engineer will inform the Caltrans archaeologist when construction is completed. The contractor, in coordination with the resident engineer and the Caltrans archaeologist, will remove the ESA fencing at the completion of construction.	Construction	No
Visual Resources	VIS-01	Guard Rail Finish	Caltrans will include a matte finish on guard rail exposed metal surfaces to reduce glare.	PS and E	No
Other	TRANS-01	Development of Transportation Management Plan	Caltrans will develop a Project-specific traffic management plan (TMP) during the final design phase of the Project. The TMP will be prepared in accordance with Caltrans requirements and guidelines to minimize construction-related delays and impacts on emergency vehicles and the traveling public. The TMP will include the following provisions: • Coordination with San Mateo County, the City of Half Moon Bay, and any other applicable local jurisdictions for notification of closures and detours • Coordination with California Highway Patrol (CHP) and other local law enforcement • Use of portable changeable message signs, the CHP construction zone enhanced enforcement program, one-way traffic controls, and flaggers • Continued access for emergency services • Continued access to any residential driveways	PS and E	No

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Appendix D. U.S. Fish and Wildlife Service and National Marine Fisheries Service Official Species Lists for the Project

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: October 12, 2022
Project Code: 2022-0034779
Project Name: State Route 1 Multi-Asset Roadway Rehabilitation Project, PM 27.5/34.8

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2022-0034779

Project Name: State Route 1 Multi-Asset Roadway Rehabilitation Project, PM 27.5/34.8

Project Type: Road/Hwy - Maintenance/Modification

Project Description: San Mateo County, CA

The California Department of Transportation (Caltrans) proposes the State Route (SR) 1 Multi-Asset Roadway Rehabilitation Project (proposed project) to rehabilitate the existing pavement, improve existing traffic facilities, install complete streets elements, and install traffic operations system elements along SR 1 in San Mateo County, California. The proposed project would include pavement rehabilitation; replacing existing drainage inlets, culverts, and dikes; replacing existing guardrails with Midwest guardrail systems; replacing existing crash cushions; upgrading curb ramps; implementing complete street elements; upgrading signal poles; installing conduits; installing traffic operation system elements (intersection cameras, closed-circuit television cameras, variable message signs, and traffic monitoring stations); and relocating and/or replacing utility cabinets.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.485252599999995,-122.44753267698314,14z

Counties: San Mateo County, California

Endangered Species Act Species

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse *Reithrodontomys raviventris* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
San Francisco Garter Snake *Thamnophis sirtalis tetrataenia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5956	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Hickman's Potentilla *Potentilla hickmanii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6343	Endangered
San Mateo Woolly Sunflower *Eriophyllum latilobum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7791	Endangered
White-rayed Pentachaeta *Pentachaeta bellidiflora* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7782	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency:	California Department of Transportation District 4
Name:	David Pecora
Address:	300 Lakeside Drive
Address Line 2:	Suite 400
City:	Oakland
State:	CA
Zip:	94612
Email	david.pecora@aecom.com
Phone:	5107546453

Pecora, David

From: Pecora, David
Sent: Tuesday, October 11, 2022 7:11 PM
To: nmfs.wcrca.specieslist@noaa.gov
Subject: Caltrans State Route 1 Multi-Asset Roadway Rehabilitation Project, PM 27.5/34.8

The California Department of Transportation (Caltrans) proposes the State Route (SR) 1 Multi-Asset Roadway Rehabilitation Project (proposed project) to rehabilitate the existing pavement, improve existing traffic facilities, install complete streets elements, and install traffic operations system elements along SR 1 in San Mateo County, California. The proposed project would include pavement rehabilitation; replacing existing drainage inlets, culverts, and dikes; replacing existing guardrails with Midwest guardrail systems; replacing existing crash cushions; upgrading curb ramps; implementing complete street elements; upgrading signal poles; installing conduits; installing traffic operation system elements (intersection cameras, closed-circuit television cameras, variable message signs, and traffic monitoring stations); and relocating and/or replacing utility cabinets.

Quad Name **Montara Mountain OE W**
Quad Number **37122-E5**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) - X
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - X
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - X

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat - X
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - X
SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - X

ESA Marine Invertebrates

Range Black Abalone (E) - X
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat - X

ESA Sea Turtles

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

ESA Whales

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - X
Sei Whale (E) - X
Sperm Whale (E) - X

ESA Pinnipeds

Guadalupe Fur Seal (T) - X
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH -
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office
562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

Quad Name **Half Moon Bay**
Quad Number **37122-D4**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) - X
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) - X
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) - X

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat - X
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat - X
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat - X

ESA Marine Invertebrates

Range Black Abalone (E) - X
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat - X

ESA Sea Turtles

East Pacific Green Sea Turtle (T) - X
Olive Ridley Sea Turtle (T/E) - X
Leatherback Sea Turtle (E) - X
North Pacific Loggerhead Sea Turtle (E) - X

ESA Whales

Blue Whale (E) - X
Fin Whale (E) - X
Humpback Whale (E) - X
Southern Resident Killer Whale (E) - X
North Pacific Right Whale (E) - X
Sei Whale (E) - X
Sperm Whale (E) - X

ESA Pinnipeds

Guadalupe Fur Seal (T) - X

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH - X
Chinook Salmon EFH -
Groundfish EFH - X
Coastal Pelagics EFH - X
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - X
MMPA Pinnipeds - X

NOTE NEW PHONE # BELOW

Appendix E. Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

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

August 2020

NONDISCRIMINATION POLICY STATEMENT

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

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

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

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

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

Toks Omishakin
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

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Appendix F. Comment Letters

The text of each comment received during the public review period of the Initial Study/Proposed ND is presented below. Text has been copied directly from comments received, and as such may contain spelling and grammatical errors. Responses follow each comment associated with the proposed Project. Caltrans has, in some instances, decided to incorporate changes to the text in response to comments on the IS. These changes are summarized in the responses and incorporated into the IS. Other revisions were made after the public review period to complete coordination with regulatory agencies. All revisions are indicated by a vertical line in the margin of the IS text, similar to the one shown to the left of this paragraph.

Comments from State Agencies

Comment Letter S-1: California Department of Fish and Wildlife, Erin Chappell

DocuSign Envelope ID: E48AB244-FA08-45F4-A203-98F78DB3B2A2

State of California
Department of Fish and Wildlife

Flex your POWER

M e m o r a n d u m

Date: August 5, 2022

To: John Seal
California Department of Transportation
District 4; Environmental Analysis
111 Grand Avenue
Oakland, CA 94612
John.Seal@dot.ca.gov

DocuSigned by:
Stacy Sherman for
692D021D81CA4F7...

From: Erin Chappell, Regional Manager
California Department of Fish and Wildlife-Bay Delta Region, 2825 Cordelia Road, Suite 100, Fairfield, CA 94534

Subject: State Route 1 Multi-Asset Roadway Rehabilitation Project, Initial Study with Negative Declaration, SCH No. 2022070140, San Mateo County

The California Department of Fish and Wildlife (CDFW) has reviewed the draft Initial Study with Negative Declaration (IS/ND) for State Route 1 Multi-Asset Roadway Rehabilitation Project (Project), pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW is submitting comments on the draft IS/ND as a means to inform the California Department of Transportation (Caltrans) as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

S-1-1

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority. (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

S-1-1 Cont.

State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT LOCATION AND DESCRIPTION

Caltrans, as the lead agency, proposes to implement the Project from Post-Mile (PM) 27.5 to 34.8 in San Mateo County and SR-92 at PM 0.2 in San Mateo County, California. The lead agency proposes to rehabilitate existing pavement, improve existing traffic facilities, install Complete Streets elements, and install traffic operations system elements along State Route (SR) 1 in San Mateo County. The Project also proposes to install traffic operation system elements at two locations on SR-92 in San Mateo County. The Project will include rehabilitating pavement; replacing existing drainage inlets, culverts, and dikes; replacing existing guardrails with Midwest guardrail systems; replacing existing crash cushions; upgrading curb ramps; implementing Complete Streets elements; upgrading signal poles; installing conduits; installing traffic operation system elements (intersection cameras, closed circuit television cameras, and traffic monitoring stations); and relocating and/or replacing utility cabinets.

Roadway Rehabilitation

To rehabilitate the roadway, Caltrans will cold plane (mill the roadway surface down to design depths to restore and smooth the roadway conditions) 0.40 feet of existing asphalt concrete pavement and replace it with a structural section composed of 0.20 feet of gap-graded rubberized hot mix asphalt, 0.25 feet of hot mix asphalt, a geosynthetic pavement interlayer, and 0.10 feet of hot mix asphalt. The roadway profile will be raised by 0.15 feet. Pavement rehabilitation will occur within the entire Project limits.

Guardrail Replacement

All guardrails within the SR-1 Project limits will be removed and replaced with standard Midwest guardrail systems. The Project will remove vegetation to access guardrails, and excavation will be necessary during construction. Wooden support posts will be installed in drilled holes to a depth of 4 feet below ground surface or deeper to address traffic safety standards at specific locations.

Crash Cushions Replacement and Signal Pole Upgrade

Nonstandard or damaged crash cushions in the Project limits will be replaced at the same locations with new crash cushions, meeting current Caltrans standards for design and safety. All nonstandard poles in the Project area will be replaced. The size of the poles will be determined during the Project's final design phase. Excavation will be required during replacement.

Conduits, and Traffic Operation System (TOS) Elements Installation

Caltrans proposes to upgrade and install new communication devices, such as closed-circuit television cameras, fixed intersection cameras, and traffic monitoring stations. Figure 1-3 through Figure 1-5 show the proposed locations for these TOS elements. New conduit installation to support these elements will require trenching during installation. Excavation limits would be determined by conduit size and location.

Drainage Inlet, Culvert, and Dike Replacement

Caltrans proposes the replacement of 12-inch-diameter pipes with 18-inch-diameter pipes and replacement of a headwall and 20-foot-long pipe with a 72-inch-diameter reinforced concrete pipe at PM 31.31. In addition, the Project would replace flared end sections at ends of pipes as needed; line the inside of 24-inch, 36-inch, and 60-inch pipes as needed; and clean and clear buried pipe ends to maintain flow pattern. The Project would also repair or replace damaged headwalls to improve flow into culverts and regrade certain unlined ditches to maintain original flow pattern. Typical culvert replacement work will require an excavation width that will be 2 feet wider than the culvert (one foot on each side); the excavation depth will be same as the depth of the existing culvert; and the excavation length will be about 2 feet longer than the existing culvert. Where culvert headwall installations are required, the facility will be increased for the length of excavation by a few feet, depending on final headwall design. Caltrans is completing survey work to refine its understanding of existing drainage elements.

Curb Ramp Upgrade

All nonstandard curb ramps in the Project area will be replaced with curb ramps that meet current Caltrans standards. The type and design of curb ramps will be determined based on location specific conditions during the Project's final design phase. Excavation for curb ramps would be necessary during construction.

Complete Streets

Sidewalks, curb ramps, and markings will be constructed throughout the Project area to provide access for pedestrians and cyclists. Appendix A provides the locations of proposed Complete Streets elements. The following street elements will be included as part of the Project: Class II bike lanes with striped buffers will be created on SR-1 in the Project area. Pedestrian facilities will be installed along the western side of SR-1, from Kelly Avenue to San Mateo Road (SR-92). Caltrans will investigate the possibility of a Class I facility on the west side from Kelly Avenue up to the SR-1 Pilarcitos Creek Bridge during the final design phase. A Class I facility would complete a continuous connection to existing facilities. If a Class I facility is not feasible, a sidewalk will be constructed across this portion instead.

Utility Relocation

Existing utilities may need to be relocated during construction. Specific utilities that will need relocation will be determined during the Project's final design phase. Some utilities may require vegetation clearance and excavation during construction.

Construction Staging

Caltrans would locate staging for construction within its right-of-way, outside environmentally sensitive areas (ESAs). At all staging locations, appropriate measures will be implemented to avoid and minimize impacts on environmental resources to the greatest extent feasible. Staging locations will be determined during the Project's final design phase.

REGULATORY REQUIREMENTS

Lake and Streambed Alteration

The Project has the potential to impact stream resources including mainstems, tributaries, drainages and floodplains associated with varied aquatic resource types within the Biological Study Area (BSA). If work is proposed that will impact the bed, bank, channel, or riparian habitat, including the trimming or removal of trees and riparian vegetation, please be advised that the proposed Project may be subject to LSA notification. CDFW requires an LSA notification, pursuant to Fish and Game Code § 1600 et. seq., for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, bank, or channel; or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements.

S-1-2

Fish and Game Code § 5901

Except as otherwise provided in this code, it is unlawful to construct or maintain in any stream in Districts 1, $1^{3}/_{8}$, $1^{1}/_{2}$, $1^{7}/_{8}$, 2, $2^{1}/_{4}$, $2^{1}/_{2}$, $2^{3}/_{4}$, 3, $3^{1}/_{2}$, 4, $4^{1}/_{8}$, $4^{1}/_{2}$, $4^{3}/_{4}$, 11, 12, 13, 23, and 25, any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream.

Fish are defined as a wild fish, mollusk, crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals (Fish & G. Code, § 45).

California Endangered Species Act

Please be advised that a CESA Permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a

mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (CEQA Guidelines §§ 21001 subd. (c), 21083, 15380, 15064 and15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code, § 2080. More information on the CESA permitting process can be found on the CDFW website at https://www.wildlife.ca.gov/Conservation/CESA.

Raptors and Other Nesting Birds

S-1-2 Cont.

CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

Fully Protected Species

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except for collecting these species for necessary scientific research and relocation of a fully protected bird species for the protection of livestock. Take of any fully protected species is prohibited, and CDFW cannot authorize their take in association with a general project except under the provisions of a Natural Community Conservation Plan (NCCP), 2081.7 or a Memorandum of Understanding for scientific research purposes. "Scientific Research" does not include an action taken as part of specified mitigation for a project, as defined in section 21065 of the Public Resources Code.

COMMENTS AND RECOMMENDATIONS

S-1-3

CDFW offers the comments and recommendations below to assist Caltrans in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, including those recommended by CDFW below, Caltrans should consider **a Mitigated Negative Declaration may be appropriate** for the Project.

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or U.S. Fish and Wildlife Service (USFWS)?

Project Description and Related Impact Shortcoming

COMMENT 1: Project Impact Analysis

Issue: The IS/ND does not sufficiently disclose impacts to fish and wildlife resources that may arise from the Project including proposed impacts to bed, bank, channel, riparian habitat, and habitat capable of supporting salmonids and other State listed species. The information provided in the IS/ND does not appear to meet CEQA's requirements for a stable and finite project description, as no specific details are given on acres of impacts to fish and wildlife resources at specific locations. The Project does not provide information on dimensions of proposed facilities at specific locations nor specific information on the potential impacts to creeks, streams, rivers, or potential suitable habitat for state listed or special status species. The only impact information provided is for San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), discussed in detail below (See **Comment 3**). The remaining information provided in this document does not appear to meet CEQA's requirements for a stable and finite Project description. For example, the IS/ND does not provide details on specific Project locations, nor does it provide dimensions of proposed facilities at specific locations. To clarify these Project details, CDFW recommends including detailed text descriptions of each activity and a table that can be easily correlated to the Appendix A maps. In addition, other elements such as Class I bike paths and complete streets are not fully described in terms of confirmed locations and Project elements that may have potentially significant impacts on fish and wildlife resources. This includes elements like path alignments, artificial light sources, as well as direct and indirect impacts to stream habitat. The impacts should be fully described in text format noting the acres or linear feet of impacts to creeks, streams, rivers, or potential suitable habitat for state listed or special-status species.

S-1-4

Furthermore, the IS/ND does not provide detailed information on the impact acreage that will occur from the installation of guard rails, culverts, inlets, and dike replacements. Specific information on areas of impact for conduit excavation trenches, traffic operation systems elements and utility relocations have not been included in the IS/ND. None of the sections provide a finite analysis of the potential vegetation proposed for removal from all of the previously described elements. The lead agency relies on Appendix A, which only contains zoomed out, landscape level map figures of aerial locations that lack impact acres, habitat types, and the information necessary to fully disclose impacts to natural resource agencies and the public. Furthermore, site-specific locations and designs are needed to ensure culverts are designed to meet the flow capacity of a given system, protect fish passage in fish bearing systems, and to ensure potential barriers are remediated and wildlife connectivity is addressed appropriately.

Evidence this is significant: CEQA requires that an Environmental Impact Report (EIR), or other environmental review document, must describe and analyze the impacts of a project – and the project itself must be consistently described, throughout the process of local agency consideration, in terms that are "accurate," "stable" and "finite." On July 31, in https://www.courts.ca.gov/opinions/documents/B282319.PDF, the Second Appellate District added to the growing body of recent case law that guides what constitutes accurate, stable and finite. *Millennium* follows and expands upon the guidance provided in *Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal.App.5th 277 ("*Washoe Meadows*") and *South of Market Community Action Network v. City and County of San Francisco* (2019) 33 Cal.App.5th 321 ("*South of Market*"). Together, these three cases assist local agencies and developers in understanding what is and is not adequate or permissible for a project description under CEQA.

Recommendation: To reduce potential impacts to less-than-significant, the IS/ND should disclose all potential locations where Project work may occur and specifically describe the dimensions of the proposed elements and impacts of each element. To clarify these Project details, CDFW recommends including detailed text descriptions of each activity and a table that can be easily correlated to the Appendix A maps. The following should also be included as conditions of approval in the IS/ND, or as mitigation measures in an MND:

S-1-4 Cont.

Recommendation 1 – Design Coordination: Early coordination with Habitat Conservation and the CDFW Conservation Engineering Branch is recommended to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW Conservation Engineering Branch should be provided engineered drawings and design specification planning sheets during the initial design process, prior to design selection. Then, Caltrans should reinitiate design consultation at 30% design, at minimum, and through the permitting process for review and comment, as identified in the Interagency Agreement (Agreement Number 43A0398).

Recommendation for Project Impacts to Fish and Wildlife Resources 2 – Project Impacts: The updated IS/ND should provide detailed information for all temporary and permanent Project impacts to the bed, bank, channel, riparian habitat, and any associated tributaries, quantified by acres and linear feet.

Recommendation for Project Impacts to Fish and Wildlife Resources 3 – Night-Work Analysis: The updated IS/ND should identify the proposed number of nights necessary to complete work in order to adequately describe the potentially significant impacts that night work may have on surrounding fish and wildlife resources.

Recommendation for Project Impacts to Fish and Wildlife Resources 4 – Project Restoration/Enhancement Plan: An updated IS/ND should identify a site-specific

restoration and enhancement plan for temporary Project impacts subject to LSA permitting in early coordination with the natural resource agencies.

S-1-4 Cont.

Recommendation for Project Impacts to Fish and Wildlife Resources 5 – Mitigation Planning: CDFW strongly recommends that the lead agency develop a mitigation plan in coordination with CDFW for any permanent Project impacts that cannot be avoided that will be subject to LSA permitting and include that plan as part of the updated IS/ND. The mitigation plan should include in detail any proposed on and/or off-site mitigation needs necessary to compensate for net-loss of river or stream resources including but not limited to hardscape materials and geo-textile fabric within the bed, bank or channel of a stream, loss of riparian vegetation and mature trees, and expansion of existing infrastructure footprint(s). CDFW recommends proposed mitigation plan(s) include details such as mitigation location(s), proposed actions, monitoring, success criteria and any corrective actions.

Environmental Setting and Related Impact Shortcoming

COMMENT 2: Coastal Oak Woodlands, Vegetation Impacts, and Riparian Trees

Issue: The IS/ND has not sufficiently disclosed or adequately analyzed the potentially significant impacts to Coastal Oak Woodlands, vegetation, and individual riparian trees that may be impacted by the Project. Specifically, the potential age, size, species, and number of trees proposed for impact, trimming, or removal within the Project limits has not been adequately described or provided in detail.

S-1-5

Evidence the impact would be significant: Oak woodlands and riparian corridors provide important ecosystem functions including habitat for numerous species of wildlife, reductions in soil erosion rates, and preservation of water quality. The rapid and extensive land conversions in oak woodlands and riparian areas coupled with an apparent lack of regeneration of several species draws concern about the long-term survival of native oaks. Fragmentation of oak habitats reduces their ability to provide the full range of ecological benefits, including maintenance of species diversity, as well as soil and watershed protection. Coast live oak (*Quercus agrifolia*) and old-growth oak trees (native oak tree that is greater than 15 inches in diameter at breast height (DBH)) are of particular importance due to increased biological values and increased temporal loss (Tyler et. al., 2002). Loss of large diameter oak trees can have potentially immitigable impacts but also can result in cumulatively significant impacts on fish and wildlife resources that rely on those habitat types to sustain their populations.

Recommendation 1: The individual DBH of each tree proposed for removal should be disclosed to the natural resource agencies and general public.

Recommendation Measure 2: Off-Site Conservation of Oak and Riparian Trees: If the Project cannot avoid impacts to heritage oak and riparian trees (15 DBH or greater) the lead agency shall permanently preserve oak and riparian trees at an off-site location. The off-site location may be lands with habitats that may be rehabilitated,

S-1-5 Cont.

restored, or preserved and maintained to fully mitigate for the potentially significant impacts. The lands must be protected through fee title, transfer, or conservation easement to an appropriate conservation entity to ensure long-term preservation and successful implementation of the mitigation. The fish and wildlife resources or environments replaced or substituted for those impacted must be maintained in perpetuity.

Recommendation 3: Individual Tree Inventory Report: The updated IS/ND shall include a tree inventory that includes map key information, species name, common name, DBH, and overall health status for each individual tree on-site.

MANDATORY FINDINGS OF SIGNIFICANCE. Does the Project have potential to substantially reduce the number or restrict the range of an endangered, rare or threatened species?

Mitigation Measures and Related Impact Shortcoming

COMMENT 3: San Francisco Garter Snake

S-1-6

Issue: The Project has the potential to result in potentially significant impacts to fish and wildlife resources that support the San Francisco garter snake (SFGS), a State and federally listed as endangered and a State fully protected species known to occur within the vicinity of the Project and within the proposed Project limits. Take of a fully protected species is prohibited, and CDFW cannot authorize take of a fully protected species in association with a Project, except under the provisions of an NCCP or a Memorandum of Understanding (MOU) for scientific purposes only. As lead agency, Caltrans must adopt the appropriate avoidance and minimization measures as conditions of approval to avoid take of a fully protected species in the subsequent IS/ND, or as mitigation measures in an MND, and design the Project to avoid impact to SFGS and their habitat. On page 2-13, Table 2-2 temporary and permanent impacts are described to SFGS habitat. These proposed impacts do not align with the adoption of the appropriate avoidance and minimization measures as conditions of approval to avoid take of a fully protected species and to avoid impacts to SFGS habitat. Therefore, impacts to any habitat for this species represents a potentially significant impact to the recovery of the species. If permanent impacts are proposed within SFGS habitat it may not be feasible to incorporate conditions of approval that can reduce the impacts below a level of significance.

Evidence the impact would be significant: The Project proposes temporary and permanent impacts to upland dispersal and aquatic breeding habitat for SFGS. SFGS is endemic to California, the San Francisco garter snake is only found on the San Francisco Peninsula from the edge of the San Francisco/San Mateo County lines south to the northern portion of Santa Cruz County.

Recommendation: CDFW recommends the following are incorporated into the subsequent IS/ND as conditions of approval, or as mitigation measures in an MND:

S-1-6 Cont.

Recommended Mitigation Measure 1: SFGS Avoidance and Minimization: The Project shall be designed to avoid impacts and Project related activity within suitable SFGS habitat including but not limited to wetlands, streams, and waterways, as well as associated upland habitat capable of providing dens and basking habitat as determined by a Qualified Biologist, experienced with SFGS, in coordination with CDFW. This can be accomplished by designing the Project to not expand or create any new structures within suitable SFGS habitat.

Recommended Mitigation Measure 2: Early Coordination with CDFW: The lead agency should engage in early coordination with CDFW at the regional and administrative level in CDFW Headquarters to focus on coordination efforts to ensure the Project is designed to avoid take of a fully protected species. Early coordination is also recommended so the lead agency can explore all potential program options within CDFW. These include but are not limited to; the CDFW Advanced Mitigation Program and Natural Community Conservation Planning Program.

S-1-7

Would the project 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?

Environmental Setting and Related Impact Shortcoming

COMMENT 4: Fish Passage Assessment

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

In addition, Measure PF-BIO-13 does not accurately reflect the process necessary to fulfill the requirements of SB-857. CDFW recommends it is replaced with **Recommended Mitigation Measure 1: Fish Passage Assessment**. The specific language of SB-857 can also be found here for reference: http://leginfo.ca.gov/pub/05-06/bill/sen/sb_0851-0900/sb_857_bill_20051006_chaptered.pdf.

Evidence the impact would be significant: The Project contains stream crossings within areas mapped as current anadromous fish watersheds, including Central

California Coast Evolutionarily Significant Unit (ESU), Coho salmon (*Oncorhynchus kisutch*) CNDDB BIOS; DS-804), State and federally listed as endangered. Additional species also include, but are not limited to, steelhead trout (*Oncorhynchus mykiss irideus*), Central California Coast Distinct Population Segment (DPS) (CNDDB BIOS; DS-45), federally listed as threatened. In addition, page 2-8 of the IS/ND confirms that those species are known to occur within the Project limits. The decline of naturally spawning salmon and steelhead trout is primarily a result of the loss of appropriate stream habitat and the inability of fish to get access to habitat, according to reports to the Fish and Game Commission and by the CDFW (CDFW, 1996). Restoration of access to historical spawning and rearing areas should be incorporated into the Project design through barrier modification, fishway installation, or other means (CDFW, 1996). These findings provide a fair argument to compel the lead agency to conduct first and second pass assessments and adhere to the requirements of SB-857.

Recommendations: If barriers or unassessed barriers noted within the Project limits identified below are found to be a barrier to fish passage, remediation of the problem should be designed into the Project by the implementing agency as a Project feature in consultation with CDFW and other natural resource agencies. CDFW recommends discussing the following locations as they pertain to fish passage:

S-1-7 Cont.

Location 1, San Vicente Creek, PM 34.75; SR-1, (Latitude: 37.5227; Longitude: -122.5087; San Mateo County), Fish Passage Assessment Database ID# 712363, fish barrier status: Partial Barrier, requires further investigation (Second Pass and Upstream evaluation of habitat).

Location 2, Denniston Creek, PM 33.3, SR-1, (Latitude: 37.5098; Longitude: -122.4879; San Mateo County), Fish Passage Assessment Database ID# 712366, fish barrier status: unknown, requires a detailed (Second Pass) survey.

Location 3, Unnamed tributary to Pacific Ocean, PM 32.9; SR-1, (Latitude: 37.5056; Longitude: -122.4822; San Mateo County), Fish Passage Assessment Database ID# 733880, fish barrier status: unknown.

Location 4, Deer Creek, PM 32.7; SR-1, (Latitude: 37.5039; Longitude: -122.4780; San Mateo County), Fish Passage Assessment Database ID# 761161, fish barrier status: unknown.

Location 5, Unnamed Tributary to Pacific Ocean, PM 32.2; SR-1, (Latitude: 37.4716; Longitude: -122.5014; San Mateo County), Fish Passage Assessment Database ID# 733878, fish barrier status: unknown.

Location 6, Unnamed Tributary to Pacific Ocean, PM 32.1; SR-1, (Latitude: 37.4705; Longitude: -122.5011; San Mateo County), Fish Passage Assessment Database ID# 733877, fish barrier status: unknown.

Location 7, Unnamed Tributary to Pacific Ocean, PM 32; SR-1, (Latitude: 37.4615; Longitude: -122.4976; San Mateo County), Fish Passage Assessment Database ID# 733876, fish barrier status: unknown.

Location 8, Unnamed Tributary to Pacific Ocean, PM 31.6; SR-1, (Latitude: 37.4690; Longitude: -122.4953; San Mateo County), Fish Passage Assessment Database ID# 733874, fish barrier status: unknown.

Location 9, Arroyo De En Medio, PM 31.31; SR-1, (Latitude: 37.4953; Longitude: -122.4559; San Mateo County), Fish Passage Assessment Database ID# 733874, fish barrier status: unknown, requires a detailed (Second Pass) survey.

Location 10, Unnamed tributary to Pacific Ocean, PM 30.9; SR-1, (Latitude: 37.4917; Longitude: -122.4521; San Mateo County), Fish Passage Assessment Database ID# 733873, fish barrier status: unknown, requires a detailed (Second Pass) survey.

Location 11, Unnamed tributary to Pacific Ocean, PM 30.8; SR-1, (Latitude: 37.4898; Longitude: -122.4507; San Mateo County), Fish Passage Assessment Database ID# 733872, fish barrier status: unknown.

S-1-7 Cont.

Location 12, Frenchman's Creek, PM 30.29; SR-1, (Latitude: 37.4829; Longitude: -122.4462; San Mateo County), Fish Passage Assessment Database ID# 707274, fish barrier status: Partial Barrier.

Location 13, Arroyo Leon, PM 29.6; SR-1, (Latitude: 37.4760; Longitude: -122.4389; San Mateo County), Fish Passage Assessment Database ID# 733870, fish barrier status: Partial Barrier.

The fish passage section should discuss the current status of the crossing location noted in the California Fish Passage Assessment Database, conduct first pass and or second pass fish assessments, as necessary, as well as provide images of the upstream and downstream ends of water conveyance structure. CDFW requests a fish passage discussion section is included to address this potentially significant impact through the following avoidance and minimization measures, which should be made conditions of approval by the lead agency, or mitigation measures in an MND.

Recommended Mitigation Measure 1: Fish Passage Assessment: To evaluate potential impacts to native fish species and fisheries resources, Caltrans shall conduct fish passage assessments as described above and provide the results to CDFW and the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the Project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the CDFW. CDFW shall be engaged prior to design in early coordination and at 30% design, at minimum, and through the permitting process for

review and comment as identified in the Interagency Agreement (Agreement Number 43A0398).

S-1-7 Cont.

In accordance with Caltrans policy and Senate Bill 857, Caltrans will conduct first-pass fish passage surveys of all unassessed stream crossings in the Project Footprint. The survey results will be provided to the Passage Assessment Database maintained by CDFW.

COMMENT 5: Wildlife Connectivity

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

Recommendations: CDFW recommends the lead agency utilize terrestrial connectivity elements such as wildlife friendly culverts, directional fencing, strategically placed median barriers, under-crossings, over-crossings, and elevated causeways into the Project as design features or conditions of approval. CDFW recommends the following considerations and information be incorporated into the Project IS/ND based on California Department of Fish and Wildlife's 2020 wildlife movement barrier priorities:

S-1-8

Recommendation 1 - Wildlife Connectivity: The IS/ND should include the results of a wildlife movement study. CDFW recommends the study occur over a period of at least 12 months prior to the development of designs so terrestrial connectivity structures can be programed into the Project. The study should occur within the limits of the proposed Project to develop a baseline understanding of the areas where wildlife movement, crossings, and mortalities are most prevalent. The study should also be utilized to inform Project design with areas where wildlife crossing structure installation(s) would result in the largest benefit to rare, threatened, and endangered species as well as special-status species and non-special-status species for wildlife connectivity. Analysis during the 12-month study should be utilized to determine the type, size, and number of structures that would be most beneficial to facilitate wildlife connectivity (new wildlife crossing culverts, modification of existing culverts, elevated causeways, etc.). Upon completion of the Project, wildlife connectivity structures and movement corridors should be studied for an additional 6 to12 month period, at minimum, to determine the effectiveness of the designs. The protocol for the baseline survey, post-construction surveys, site selection criteria and design criteria for the development of the wildlife connectivity structures should follow the protocols outlined in *The California Department*

S-1-8 Cont.

of Transportation (Caltrans), Wildlife Crossings Design Manual (Caltrans, 2009) and the *Federal Highway Administration Wildlife Crossing Structure Handbook – Design and Evaluation in North America, Publication No. FHWA-CFL/TD-11-003* (FHWA, 2011).

COMMENT 6: Western Monarch Butterfly Roosting and Over-Wintering Sites

Issue: The Project is proposed to occur within known overwintering sites for western monarch butterfly populations according to findings in Monarch Butterfly modeling habitat (BIOS; DS-2861) and The Western Monarch Count Organization. Five overwintering sites occur within the vicinity of the Project, three of the sites occur directly within the Project limits. The Sites are designated with the following ID's 3111 (37.5107, -122.4801), 3112 (37.5077, -122.4684), 3113 (37.4826, -122.4485), 3114 (37.5052, -122.4816) and 3108 (37.4843, -122.4419) (https://www.westernmonarchcount.org/find-an-overwintering-site-near-you/).

S-1-9

Evidence the Impact Would be Significant: The western monarch has been identified in the California's State Wildlife Action Plan as a Species of Greatest Conservation Need. Western monarch butterfly populations declined by more than 99 percent since the 1980s. An estimated 4.5 million monarchs overwintered on the California coast in the 1980s, whereas in 2020, the population estimate for migratory overwintering monarchs was less than 2,000 butterflies. This extreme population decline is due to multiple stressors across the monarch's range, including the loss and degradation of overwintering groves; pesticide use, loss of breeding and migratory habitat; climate change; parasites and disease. In recent years, monarchs have not clustered in the southern-most part of their overwintering range, and they are likely year-round residents in some areas of the coast (Xerces, 2021; https://xerces.org/monarchs). This drastic decline of the species makes each roosting or overwintering site critical to the recovery of the species. Assembly Bill-559 (AB-559) promotes initiatives to protect and restore monarch habitat within transportation corridors, such as SR-1, and encourage public entities such as Caltrans to create, enhance, and restore monarch butterfly habitat throughout its native range in cooperation with CDFW. Development of a monarch butterfly conservation plan and incorporation of that plan into the Project features or conditions of approval to avoid potentially significant impacts should be included in the draft IS/ND.

Recommendations: To reduce impacts to western monarch butterfly to less-than-significant, the Project should incorporate the following mitigation measure for western monarch butterflies:

Recommended Mitigation Measure 1: Protect, Manage, Enhance and Restore Monarch Butterfly Overwintering Sites: Conduct overwintering grove habitat assessment(s) and develop and implement long-term grove management plans (https://www.westernmonarchcount.org/). Management plan actions for groves may include, but are not limited to:

- Enhance roosting trees within overwintering groves and within 1/2 mile of groves by planting native insecticide-free trees (e.g., Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa)*, coast redwood (*Sequoia sempervirens*), coast live oak (*Quercus agrifolia*), Douglas-fir (*Pseudotsuga menziesii*), Torrey pine (*Pinus torreyana*), western sycamore *(Platanus racemosa*), Bishop pine (*Pinus radiata*) and others, as appropriate for location).

- Avoid the removal of trees or shrubs within 1/2 mile of overwintering groves, except for specific grove management purposes, and/or for human health and safety concerns. The maintenance of trees and shrubs within a 1/2 mile of these sites provides a buffer to preserve the microclimate conditions of the winter habitat.

- Conduct management activities in groves from March 16-September 14, in coordination with a monarch biologist, such as tree trimming, mowing, burning, and grazing in monarch overwintering habitat outside of the estimated timeframe when monarchs are likely present.

- Enhance native, insecticide-free nectar sources by planting fall/winter blooming forbs or shrubs within overwintering groves and within one mile of the groves (https://xerces.org/sites/default/files/publications/18-003_02_Monarch-Nectar-Plant-Lists-FS_web%20-%20Jessa%20Kay%20Cruz.pdf).

S-1-9 Cont.

- Avoid the use of pesticides within one mile of overwintering groves, particularly when monarchs may be present. If pesticides are used, then conduct applications from March 16-September 14, when possible. Avoid the use of neonicotinoids or other systemic insecticides, including coated seeds, any time of the year in monarch habitat due to their ecosystem persistence, systemic nature, and toxicity. Avoid the use of soil fumigants.

- Consider non-chemical weed control techniques, when possible (https://www.cal-ipc.org/resources/library/publications/non-chem/).

- Remove tropical milkweed that is detected, and replace it with native, insecticide-free nectar plants suitable for the location (https://xerces.org/sites/default/files/publications/18-003_02_Monarch-Nectar-Plant-Lists-FS_web%20-%20Jessa%20Kay%20Cruz.pdf).

- To assist in maintaining normal migration behavior, do not plant any type of milkweed within five miles of the coast from Mendocino County south through Santa Barbara County, and within one mile of the coast south of Santa Barbara County, unless the species of milkweed is native to the local area.

S-1-9 Cont.

- Conduct grove monitoring for butterflies during the Western Monarch Counts each fall and winter. When possible, report when monarchs arrive and depart the groves each year (https://www.westernmonarchcount.org/).

COMMENT 7: Light Impact Analysis and Discussion

Issue: A significant portion of the proposed Project within the SR-1 corridor does not contain any overhead or artificial light sources. The Project proposes Class I Bike Paths, complete streets, utility relocations and traffic operations system elements that may include overhead lights, informational travel sign systems, warning beacons and a variety of other luminaries that have not been fully described or analyzed within the current IS/ND. Artificial light spillage beyond the prism of the roadway into natural areas may result in potentially significant impacts through substantial degradation of the quality of the environment. Artificial light pollution also has the potential to significantly and adversely affect biological resources and the habitat that supports them. Unlike the natural brightness created by the monthly cycle of the moon, the permanent and continuously powered lighting fixtures create an unnatural light regime that produces a constant light output. Continuous light output for 365 days a year can also have cumulatively significant impacts on fish and wildlife populations.

S-1-10

Evidence the impact would be significant: Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). Artificial night lighting has also been found to impact juvenile salmonid overwintering success by delaying the emergence of salmonids from benthic refugia and reducing their ability to feed during the winter (Contor and Griffith 1995). For nocturnally migrating birds, direct mortality as a result of collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al. 2008) and changes in habitat selection (McLaren et al. 2018). There is also growing evidence that light pollution alters behavior at regional scales, with migrants occupying urban centers at higher-than-expected rates as a function of urban illumination (La Sorte et al. 2021). While artificial light pollution can act as an attractant at both regional (La Sorte et al. 2021) and local (Van Doren et al. 2017) scales, there is also evidence of migrating birds avoiding strongly lit areas when selecting critical resting sites needed to rebuild energy stores (McLaren et al. 2018). There is a high potential for songbirds, migratory birds, salmonids, and other special-status species to occur within or in the vicinity of the Project. Therefore, the Project's artificial light may significantly impact the movement and natural behaviors of fish and wildlife.

Recommendation: To reduce impacts to less-than-significant, CDFW recommends no new or replacement lighting is installed as part of or as a result of the Project. In addition, the current light output regime should be fully analyzed alongside any future potential light output regime.

Recommended Measure 1 – Habitat Compensation: For Project elements that require artificial lighting, compensatory mitigation shall be provided for all areas supporting fish and wildlife affected by new or increased light output.

Recommended Measure 2 – Light Output Analysis: Isolux Diagrams that note current light levels present during pre-Project conditions and the predicted Project light levels that will be created upon completion of the Project shall be included in the IS/ND. If an increase in light output from current levels to the projected future levels would occur, additional avoidance, minimization or mitigation measures shall be developed in coordination with the natural resource agencies to offset indirect impacts to special status-species and those measures shall be included in the Project IS/ND. Within 60 days of Project completion the lead agency shall conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux diagrams. If an increase from the projected levels to the actual levels is discovered additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies. This analysis should be conducted across all potential alternatives and compared in table and map format.

S-1-10 Cont.

Recommended Measure 3 – Light Output Limits: All LEDs or bulbs installed as a result of the Project shall be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.

Recommended Measure 4 – Vehicle Light Barriers: Solid barriers at a minimum height of 3.5 feet should be installed in areas where they have the potential to reduce illumination from overhead lights and from vehicle lights into areas outside of the roadway. Barriers should only be utilized as a light pollution minimization measure if they do not create a significant barrier to wildlife movement. Additional barrier types should be employed when feasible, such as privacy slats into the spacing of cyclone fencing to create light barriers for areas outside the roadway.

Recommended Measure 5 – Reflective Signs and Road Striping: Retro-reflectivity of signs and road striping should be implemented throughout the Project to reduce the need for electrical lighting.

Recommended Measure 6 – Light Pole Modifications and Shielding: All new or replacement light poles or sources of illumination shall be installed with the appropriate shielding to avoid excessive light pollution into natural landscapes or aquatic habitat within the Project corridor in coordination with CDFW. In addition, the light pole arm length and mast heights should be modified to site specific conditions to reduce excessive light spillage into natural landscapes or aquatic habitat within the Project corridor. In areas with sensitive natural landscapes or aquatic habitat the lead agency should also analyze and determine if placing the light poles at non-standard intervals has the potential to further reduce the potential for excessive light pollution caused by decreasing the number of light output sources in sensitive areas.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNNDB online field survey form and other methods for submitting data can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Plants and-Animals.

FILING FEES

S-1-11

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California's fish and wildlife resources. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

Questions regarding this letter or further coordination should be directed to Robert Stanley, Senior Environmental Scientist (Specialist), at (707) 339-6534 or Robert.Stanley@wildlife.ca.gov or Wesley Stokes, Senior Environmental Scientist (Supervisory), at (707) 339-6066 or Wesley.Stokes@wildlife.ca.gov.

cc: State Clearinghouse #2022070140

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Response to Comment Letter S-1: California Department of Fish and Wildlife

S-1-1. Thank you for your introductory statements. Please see the ensuing comment responses.

S-1-2. Caltrans acknowledges the applicable regulatory requirements for the Project. All permits and approvals determined to be necessary for the Project area listed in Table 1.8.

S-1-3. Thank you for your comments and recommendations. Based on the assessed potential impacts, Caltrans has determined that a Negative Declaration is the appropriate level of California Environmental Quality Act environmental document for the Project. Please see the subsequent comment responses for additional details.

S-1-4. This comment states that the IS/ND does not sufficiently disclose the locations and acreages of proposed Build Alternative Features. Furthermore, it states that the Project has the potential to impact fish and wildlife resources, including bed, bank, channel, riparian habitat, and habitat capable of supporting salmonids and state-listed species. Please note that the Project design is currently at a conceptual level and will be refined during the final design and permitting phase of the Project. Regardless, an assessment of potential impacts to riparian habitat and other sensitive natural communities is included in Section 2.2.4.

In Section 2.2.4, special-status species with the potential to occur in the Project's biological study area (BSA) are listed, along with riparian habitat and sensitive natural communities. Less-than-significant impacts to biological resources are anticipated, and avoidance and minimization measures are proposed to further reduce the potential for impacts.

S-1-5. This comment states that the IS/ND does not sufficiently disclose potential significant impacts to Coast Oak woodlands, vegetation, and individual riparian trees. It further states that the character of specific trees that may be impacted by the Project is not disclosed.

Vegetation in the Project's biological study area (BSA) was mapped using a combination of aerial imagery and street view imagery. Vegetation was mapped to the vegetation alliance level using the California Native Plant Society Manual of California Vegetation classification system, where possible. No oak woodland habitat was identified in the BSA. Tree-dominated communities in the BSA consist of Acacia woodland; Eucalyptus – tree of heaven – black locust groves; Goodding's willow – red willow riparian woodland and forest; Monterey cypress – Monterey pine stands; and red adler forest.

The Build Alternative would not require tree removal, and riparian vegetation would be protected, in accordance with avoidance and minimization measure BIO-01 (Riparian Vegetation Protection). The text of that measure is as follows:

“All riparian habitat in the Project area will be delineated as an ESA, and no construction activities will occur outside of the immediate work area in riparian habitat ESAs. At the roadway crossings of Denniston, Frenchman’s, and Pilarcitos Creeks, Caltrans will limit riparian vegetation removal to the immediate work area. Trees or shrub trimming at those locations will be limited to removing only branches that overhang the roadway.”

Guardrail replacements may require minor vegetation removal. Environmentally sensitive areas, however, would be delineated and avoided. Additionally, any temporarily disturbed areas would be restored to their preconstruction contours and functions to the maximum extent practicable, in accordance with Project feature PF-BIO-08.

S-1-6. This comment states that the Project has the potential to cause significant impacts to the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), which is a federally and state endangered species, as well as a state fully protected species. It further states that the IS/ND does not sufficiently avoid such potential impacts, and recommends that a Mitigated Negative Declaration be implemented for the Project, rather than a Negative declaration.

Please note that avoidance and minimization measures BIO-01 through BIO-07 are proposed to avoid impacts to special status species, such as the San Francisco garter snake.

As stated in Section 2.2.4 of the IS/ND, eleven recorded occurrences of San Francisco garter snake exist within 2 miles of Project biological study area (BSA) locations. Three observations are known to be extirpated, and all but one are precluded from occurring in the BSA by barriers such as the SR 1 concrete median, residential development, or distance from the Project area. Potential habitat for San Francisco garter snake in the BSA is marginal. Paved surfaces, graveled shoulders, and regularly mowed areas do not provide the physical or biological elements required to support San Francisco garter snake in any of its life stages. It is unlikely that San Francisco garter snake individuals could occur in the Project area where work is proposed.

Potentially suitable garter snake habitat in the BSA is marginal.

S-1-7. This comment recommends that Caltrans assess potential barriers to anadromous fish passage within the Project limits. It further states that Project feature PF-BIO-13 does not sufficiently fulfil the requirements of Senate Bill 857. The text of PF-BIO-13 is as follows:

“Fish Passage Assessment. In accordance with Caltrans policy and Senate Bill 857, Caltrans will conduct first-pass fish passage surveys of all unassessed stream crossings in the Project Footprint. The survey results will be provided to the Passage Assessment Database maintained by CDFW.”

CDFW has recommended that Caltrans remove PF-BIO-13 and include a mitigation measure for fish passage assessment. This would mean that a Mitigated Negative Declaration would be implemented for the Project, rather than a Negative Declaration.

Caltrans reviewed crossings in the biological study area (BSA) with the potential to support anadromous fish passage. The Project would not create barriers to fish passage at any crossings that were found to support or may support anadromy. As stated in Section 2.2.4, the Project would replace in-kind two small, culverted water crossings that are not likely to support anadromous fish in the BSA: Arroyo de en Medio and an unnamed tributary to Denniston Creek. Work at these crossings would not substantially interfere with movement of any migratory fish or aquatic species.

S-1-8. This comment states that the Project has the potential to disrupt wildlife corridors through highway lane expansion. The Build Alternative would not alter the existing alignment of SR 1. The existing number of through lanes would be maintained throughout, and no outside widening would be implemented. As stated in Section 2.2.4 of the IS/ND, the Project would not interfere substantially with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

As part of the Project features, environmentally sensitive areas (ESAs) (defined as areas containing sensitive habitats adjacent to or in construction work areas for which physical disturbance is not allowed) would be clearly delineated using temporary high-visibility fencing or temporary reinforced silt fences with high-visibility fabric on top. This would ensure that work does not incur on ESAs. See PF-BIO-02 in Section 1.7 for a full description of this Project feature. Additionally, avoidance and minimization measures are proposed in Section 2.2.4, including measures to avoid entrapment of animals during construction, surveys, and protocol for species observation.

S-1-9. Thank you for your comment. This comment requests that the IS/ND incorporate measures regarding western monarch butterfly overwintering sites. Although the Project would require some trimming and vegetation removal, Caltrans does not anticipate that western monarch butterfly overwintering sites would be affected by the Project. Furthermore, Caltrans will comply with Executive Order 13112, as stated in Table 1-2, and will follow avoidance and minimization measure BIO-10. BIO-10 states that Caltrans will remove invasive plant species where applicable, reduce the spread of invasive nonnative plant species, and minimize the potential decrease of palatable vegetation for wildlife species.

S-1-10. Thank you for your comment. It should be stated that no “informational travel sign systems” are proposed by the Project. Please note that no new lighting is proposed as part of the Project.

S-1-11. Thank you for your comments. Caltrans appreciates CDFW’s time and recommendations, and will follow the appropriate procedures for recording environmental data and submitting applicable filing fees.

Comment Letter S-2: California Coastal Commission, Peter Allen

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY GAVIN NEWSOM, GOVERNOR

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August 24, 2022

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California Department of Transportation – District 4
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Subject: State Route 1 Multi-Asset Roadway Rehabilitation Initial Study with Proposed Negative Declaration (SR1 PM 27.5-34.8) (EA 04-0Q130)

Dear Mr. Seal and Ms. Ma,

S-2-1

Thank you for the opportunity to provide some initial comments on this State Route 1 Multi-Asset Roadway Rehabilitation (EA 04-0Q130) project and the Draft Initial Study with Proposed Negative Declaration (IS/ND). The proposed project will rehabilitate existing pavement, improve existing traffic facilities, and install Complete Streets elements along Highway 1 in San Mateo County, California, between the south end of Moss Beach (at Marine Boulevard) and the south end of Half Moon Bay (at Wavecrest Road).

Overall, because the project includes complete street elements that improves public access for pedestrians and cyclists, we generally support the project. We offer these few thoughts below aimed at improving and streamlining the eventual permitting of this project and look forward to coordinating further with you, San Mateo County, and Half Moon Bay on this project.

S-2-2

Jurisdiction. It appears from the materials submitted that the project includes work in the Local Coastal Program (LCP) jurisdictions of San Mateo County and Half Moon Bay. Thus, the standard of review for required Coastal Development Permit (CDP) authorization for the project are the policies of the various LCPs. However, the Coastal Commission retains jurisdiction over any development proposed or undertaken within the coastal zone on any tidelands, submerged lands, public trust lands, or federal lands. Depending on the exact nature and location of the work proposed, it is unlikely, but possible, some proposed work would be in the Commission's retained jurisdiction, namely the stretch along Surfer's Beach. If that is the case, Caltrans may choose to purse a consolidated CDP through the Coastal Commission pursuant to Section 30601.3 of the Coastal Act, if all parties agree. Feel free to contact me with more project details to evaluate this possibility. Regardless, the IS/ND should note that the project is in the Commission's appeal jurisdiction, and the standard of review in such an appeal would be the policies of the LCP.

S-2-3

TOS Elements. The IS/ND project descriptions refers to proposed Transportation Operational System (TOS) elements. It is our understanding from discussions with Caltrans staff that these TOS elements have been removed from the project, specifically including the electronic visual messaging signs. These electronic signs do raise many local community concerns, and if the project is updated to once again include these elements, substantive discussions with San Mateo County, Half Moon Bay, and the Coastal Commission will be necessary. We suggest the IS/ND be clarified in this regard.

S-2-4

Complete Street Improvements. We appreciate that the project will improve sidewalks and curb ramps and install additional bike lanes. We also appreciate that the project considers and aligns with the San Mateo County Connect the Coastside Plan and other local active transportation plans.

The project proposes Class II bike lanes, which is a very important positive element of the project. However, it is unclear to us the extent of these bike improvements. Page 1-9 of the states that "Class II bike lanes with striped buffers would be created on SR 1 in the project area." However, Figure 1-7 on page 1-12 does not appear to depict any Class II bike lanes, except for a narrow segment over Pilarcitos Creek. The IS/ND should clarify the proposed extent of Class II bike lanes and we encourage Caltrans to include at least Class II bike lanes throughout the entire project as consistent with visual resource protection policies of the LCP, unless there are sections that Caltrans can demonstrate a bike lane is infeasible. The Connect the Coastside Plan above calls for bike lanes throughout this section, as well as a separated multimodal path. This project presents a critical opportunity that should not be missed to make these important active transportation improvements. Moreover, although much of the project area does have a completed California Coastal Trail, there are gaps present in the north of the project area at Moss Beach. The IS/ND should reference the California Coastal Trail and Caltrans should include coordination with San Mateo County and Coastal Commission staff in this project to see if any upgrades to complete the CCT are feasible in this project.

Additionally, as we have mentioned, Commission staff generally support efforts to expand this project to include improved additional pedestrian crossings at Surfers Beach to improve safety for the crossing from the parking area there to the beach.

S-2-5

Sea Level Rise. The IS/ND concludes that SLR is not a threat to the proposed project at current tidal elevations or through the lifespan of the project. We appreciate that the IS/ND refers to the Ocean Protection Council's 2018 SLR Guidance and SLR projections. The IS/ND should also refer to the Coastal Commission's 2018 SLR Guidance and, given that Highway 1 is critical transportation infrastructure, the 2021 Coastal Commission's Critical Infrastructure Guidance, both of which are available here https://www.coastal.ca.gov/climate/slr/. For critical infrastructure, the Commission recommends at least analyzing and understanding the risks under the Extreme Risk Scenario and the Medium-High Risk Scenario, which under the tide gauge projections in the Commission's SLR Guidance would be 10.2 and 6.9 feet by the end of the century, greater than the 4.4 cited to in the IS/ND. Thus, Caltrans should update the SLR section of the IS/ND to use updated projections based on the Commission's SLR Guidance, though projections from the San Mateo County's Local Hazard Mitigation Plan are also appropriate.

However, the Commission typically evaluates Caltrans projects in terms of SLR for the designated lifetime of the project. The IS/ND SLR section does not provide the lifetime of the project in its SLR analysis, which it should. From the rest of the document, it would appear to be 20 years. We would therefore suggest using projections for 2040 or 2050 as most useful for SLR analysis of this project. Using 2050, the appropriate tidal gauge projections would be 1.9 and 2.7 feet. Overall, we would suggest that this section be updated to include present tidal values, the 2100 scenarios, and the life-of-the project (2040/2050) scenarios and be analyzed pursuant to projections in the San Mateo County's Local Hazard Mitigation Plan or the Commission's Medium-High and Extreme-Risk scenarios in our SLR Guidance.

In the IS/ND, Caltrans notes that Surfer's Beach adjacent to SR 1 in the community of El Granada is vulnerable to erosion and wave run up at locations under the SLR scenarios through the 2100 period examined for this project. Indeed, the proper OCOF projections for flooding and shoreline at the end of the century are quite severe at this location. The IS/ND concludes that shoreline protection efforts to address SLR in the year 2100 are beyond the scope of this project.

S-2-5 Cont.

Although that conclusion may be justifiable, the IS/ND needs to discuss the existing presence of shoreline armoring here and outstanding Caltrans obligations. Coastal Commission CDP 1-98-057, as amended in 2015 in CDP 1-98-057-A3, authorized the placement of this armoring with certain special conditions. Caltrans should acknowledge that CDP 1-98-057-A3 expires in 2025, at which point Caltrans will have to remove the rock revetment or apply for a new CDP amendment. Caltrans should acknowledge that under Special Condition 9 of the CDP, Caltrans is to develop a long-term plan solution for this stretch of Highway 1, and that the permitting for the armoring "is temporary only, and is permitted to be maintained in order to provide a reasonable period of time for the Permittee to develop and implement a long-term solution to the acute erosion threat to Highway 1 in this area." Commission staff and Caltrans staff have been working together to find ways for Caltrans to gain funding to undertake this long-term planning, but to date, Caltrans is significantly behind in developing any sort of long-term adaptation analysis or plan. Overall, rather than simply conclude SLR is not a problem for this project and Highway 1 here, the IS/ND should discuss the status of the rock revetment at Surfer's Beach, the need for a long-term adaptation solution, and the plan to move forward with adaptation planning here. I note that using an appropriate 2.7 feet of SLR by 2050, with the "hold the line" option turned off (e.g. existing armoring is removed), the OCOF viewer shows the shoreline crossing over Highway 1 almost to the Surfer's Beach parking lot east of the highway.

S-2-6

Broadband. Section 1.4.10 Utility Relocation on IS/ND page 1-13 references the need to relocate utilities during this project's construction activities. A recent point of collaboration between Caltrans and the Coastal Commission is the Broadband Middle Mile Initiative under which Caltrans will install fiber optic infrastructure needed to enable internet connectivity. It is our understanding that the section of Highway 1 from Highway 92 through to San Francisco is designated for broadband middle mile installation. For obvious reasons, this project should coordinate with the Caltrans D4 Broadband Middle Mile team to see if this work can be consolidated. If this project does expand to include broadband work, early coordination is necessary with the county, the Commission, and Half Moon Bay, on placement of the utility and the associated infrastructure such as vaults, hubs, or other large components.

Visual Issues/Culvert replacements. The project does not appear to have any proposed elements that could have significant negative visual impacts. As you know from other projects, however, the scenic character of Highway 1 is highly protected under the Coastal Act and LCPs. Close coordination on final project designs is necessary to ensure consistency with the visual policies of the LCPs.

S-2-7

Section 2.2.1 "Aesthetics" states that Highway 1 here is not protected as a designated State Scenic Highway. However, in the Coastal Zone, the scenic qualities of Highway 1 are protected and Highway 1. (See 30251 and 30254 of the Coastal Act.) We suggest this section be updated to refer to Coastal Act and/or San Mateo County and Half Moon Bay LCP policies protecting the visual and scenic qualities of Highway 1.

The project does propose culvert replacements, including with headwall replacements. The IS/ND should discuss the possible visual impacts of culverts and headwalls, and, if relevant, discuss the need to obscure headwalls with native plantings. Our work together on the forthcoming Storm Damage Repair Guidelines offers some related minimization measures. On a similar note, the IS/ND states that culverts will be upsized but does not provide a reason, and should also discuss the potential for climate-change related extreme storm events and increased storm flows, as discussed in the District 4 2019 Climate Change Vulnerability Assessment.

Greenhouse Gas Reductions/Reductions in VMTs. Section 2.2.8 beginning on page 2-26 discusses the relationship between the project and state goals to reduce greenhouse gas (GHG) emissions. Likewise, Page 2-22 references the Energy and Climate Change Element of the San Mateo County General Plan and its goal of reducing VMTs. The IS/ND acknowledges that the transportation sector is California's leading cause of GHG emissions and cites a number of state and San Mateo County policies requiring reductions in GHG emissions. The IS/ND concludes that the project would not lead to an increase in GHG emissions and that construction emissions would be insignificant. The IS/ND lists describes a few minor construction-related actions to minimize GHGs emissions, such as limits on truck idling and vehicle maintenance. These mitigation measures seem perfunctory.

S-2-8

In terms of measures to comply with state and San Mateo County goals of reducing GHG emissions, the project describes a number of state Caltrans initiatives, such as the CAPTI plan. Yet, state plans by themselves do not reduce GHGs, only projects that comply with and implement those plans can reduce GHGs.

The project does include complete street and bike improvements that can support active transportation, which can help reduce GHG emissions through transportation use shifts. That is why steps taken to expand the Class II and Class I bike lanes, as well as the CCT, throughout the project corridor are very important and need clarification. It is also strange the IS/ND does not reference the active transportation improvements of this project in its discussion of GHG emissions.

We would encourage the project to explore more stringent GHG emission reduction measures and explore emerging zero-emissions technologies that could support construction activities. We understand that those tools can be hard to develop in projects at this stage of development.

S-2-8 Cont.

However, Caltrans District 4 has been a leader for Caltrans in coastal resiliency adaptation planning, and could also explore ways to be at the forefront of implementing various Caltrans to reduce GHG emissions. Are there opportunities to improve implementation of CAPTI goals, expand ZEV infrastructure consistent with the Caltrans Zero-emission Vehicle Action Plan of 2021, or generally reduce construction emissions beyond just limits on idling?

S-2-9

ESHA Impacts. Lastly, the project describes some wetland and ESHA impacts. Defining, analyzing, and finding appropriate mitigation for such impacts to coastal resources are complicated under the Coastal Act and an enduring source of project permitting delays. We encourage you to work closely with San Mateo County and Half Moon Bay to ensure impacts are carefully and properly analyzed under the Coastal Act and LCP, avoided and minimized, and that adequate mitigation proposals are developed ahead of the application submittal.

We look forward to working with you further on this project.

Sincerely,

DocuSigned by:
Peter Allen
3AE6C24584D3470...

Peter Allen
Coastal Program Manager
Transportation Program
California Coastal Commission

cc:

Chanda Singh, Senior Transportation Planner San Mateo County
Maziar Bozorginia, Half Moon Bay
Stephanie Rexing, North Central District Manger Coastal Commission

Response to Comment Letter S-2: California Coastal Commission

S-2-1. Thank you for your introductory statements. Please see the ensuing comment responses.

S-2-2. Thank you for your comment. This comment explains that although LCP jurisdictions of San Mateo and Half Moon Bay may cover work areas of the Project, areas such as that along Surfer's Beach in Half Moon Bay may fall under the jurisdiction of the California Coastal Commission, requiring a Coastal Development Permit. Caltrans understands that a consolidated Coastal Development Permit may be appropriate for the Project, depending on the final design, and will coordinate with the California Coastal Commission as needed.

S-2-3. Thank you for your comment. This comment details community concerns related to the electronic visual messaging signs. However, these signs have been removed from the Project due to community concern. Please see Page 28, Paragraph 5 of the IS/ND:

"A variant of the Build Alternative that included variable message signs placed at four locations on SR 1 and at one location on SR 92 was considered in the Project's conceptual design. The variable message signs were removed from the Project's design and consideration in the Build Alternative. Removal of these elements was based on preliminary feedback to Caltrans from local community stakeholder groups and input from regulatory agency partners on this element."

The TOS elements that are still part of the Build Alternative include closed-circuit television cameras, fixed intersection cameras, and traffic monitoring systems.

S-2-4. Thank you for your comment. This comment addresses Class II bicycle lane improvements discussed in the document, and requests clarification on this element. Please note that the City/County Association of Governments of San Mateo (C/CAG) has several active transportation projects: Oceana Boulevard (from Paloma Avenue to Manor Drive) new Class II bicycle lane; Paloma Avenue (from Palmetto Avenue to Oceana Boulevard) new Class IV separated bicycle lane; Sharp Park Road (from Gypsy Hill Road to Bradford Way) upgrade of a Class I path; Clarendon Road (from Palmetto Avenue to Lakeview Avenue) upgrade of a Class III bicycle boulevard; Clarendon Road and Francisco Boulevard (from Oceana Boulevard to Bradford Way) upgrade of a Class II bicycle lane; and Bradford Way (from Sharp Park Road to Westport Drive) upgrade of a Class II buffered bicycle lane.

However, this comment also mentions the California Coastal Trail and requests that it be mentioned in the IS/ND. Caltrans has mentioned and discussed impacts to the California Coastal Trail in Section 2.2.17. "The IS/ND states:

"The Project would not adversely affect the California Coastal Trail or its use in the long term. The Project features would not conflict with uses of the trail."

Improving portions of the California Coastal Trail outside of the Project area is out of scope for this Project. However, Caltrans continues to collaborate with Stakeholders along the coast on potential bicycle and pedestrian improvements.

S-2-5. Thank you for your comment. The commenter requests that the IS/ND refer to the Coastal Commission's 2018 Sea-Level Rise Guidance and the 2021 Coastal Commission's Critical Infrastructure Guidance. Specifically, commenter requests that the IS/ND analyze risks to the Project under the Extreme Risk Scenario and the Medium-High Risk Scenario within the CCC guidance. Caltrans accepts and understands the risks associated with sea-level rise, as stated in Section 4.4. Although specified sea-level rise analysis is not considered in this maintenance Project, Caltrans welcomes coordination with stakeholders on more robust future projects specifically addressing sea-level rise.

S-2-6. The proposed Build Alternative does not include installation of new fiber-optic cables. Utility relocation for the proposed Build Alternative would be limited to existing utilities that are affected during construction.

S-2-7. Thank you for your comment. The commenter requests that Section 2.2.1, "Aesthetics," be updated to include language explaining that in the Coastal Zone, the scenic qualities of Highway 1 are protected. The commenter suggests this section be updated to refer to Coastal Act and/or San Mateo County and Half Moon Bay LCP policies protecting the visual and scenic qualities of Highway 1.

Section 2.2.1 of the IS/ND has been updated to clarify that, although the Project area is not a State Scenic Highway, its scenic character is protected by the Coastal Act and other applicable plans, which are elaborated on in Section 2.2.11. Project features would be included as part of the Build Alternative, which are described in Table 1-2. These include restoring disturbed ground surfaces with native, locally appropriate seed.

This comment also refers to the potential for aesthetic impacts related to culvert work. Caltrans anticipates that drainage, culvert, and dike replacement work will maintain the existing visual character of the Project area. Replaced culverts would be the same as or similar in appearance to existing culverts, and all disturbed ground areas would be restored using appropriate native vegetation, as aforementioned.

Lastly, this comment requests that Caltrans examine the potential for extreme storm events and increased storm flows related to climate change, and how this may intersect with the Project. The goal of this Project is to replace and/or improve the lifespan of existing roadway facilities. Although robust climate change adaptation is not within the scope of the Project, Caltrans welcomes and expects coordination with stakeholders on future projects.

S-2-8. Thank you for your comment. The commenter requests that steps be taken to include a complete streets element to expand the Class II and Class I bicycle lanes, as

well as the California Coastal Trail throughout the Project corridor. Caltrans includes Complete Streets analysis on page 23, paragraph 4, and states:

“Sidewalks, curb ramps, and markings would be constructed throughout the Project area to provide access for pedestrians and cyclists. Locations where Complete Streets elements are proposed are shown on Figure 1-7, and details are provided in Appendix A.”

As shown in Figure 1-7, there will be sidewalk improvements made from Kelly Avenue to San Mateo Road, but the California Coastal Trail is more than half a mile to the west of the Project area. Please see the response to Comment S-2-4 for additional information on the California Coastal Trail.

Specifically, the commenter requests that the Project explore more stringent GHG emission reduction measures and explore emerging zero-emissions technologies that could support construction activities. Caltrans will be adhering to local plans and programs, including the San Mateo County General Plan Energy and Climate Change Element, Energy Efficiency Climate Action Plan, and Government Operations Climate Action Plan. Project construction would not conflict with any goals or policies at the state or local level, because Caltrans’ Standard Specifications support the reduction of emissions to the maximum feasible extent.

Finally, the commenter requests that Caltrans improve implementation of CAPTI goals, expand ZEV infrastructure consistent with the Caltrans Zero-Emission Vehicle Action Plan of 2021, or generally reduce construction emissions beyond just limits on idling. Caltrans is working closely with Governor Newsom’s CAPTI/Climate Action Team to help achieve GHG reduction targets. Although the total GHG emissions for construction would be 476.38 metric tons of CO_2e, these would be short-term emissions and would not lead to long-term adverse effects. In addition, Caltrans Standard Specifications would be followed, such as complying with air pollution control rules, regulations, ordinances, and statutes.

S-2-9. Thank you for your comment. This comment requests that Caltrans work closely with San Mateo County and Half Moon Bay to ensure that impacts are carefully and properly analyzed under the Coastal Act and LCP, that they are avoided and minimized, and that adequate mitigation proposals are developed ahead of the application submittal. As stated in Section 2.2.4.1, potential wetlands, other waters of the United States, and waters of the state regulated by the United States Army Corps of Engineers and the Regional Water Quality Control Board (RWQCB); and riparian areas and Coastal Zone wetlands regulated by the California Coastal Commission (CCC) were mapped in the Biological Study Area (BSA) for the September 2021 aquatic resource jurisdictional delineation report (Caltrans 2021h).

Proposed Avoidance and Mitigation Measures addressing potential impacts to wetlands are covered on Page 53, paragraph 3:

“BIO-12: Wetlands and Waters Construction Work Windows

Work in wetlands, waters, and riparian habitat will be limited to June 15 through October 15 to avoid or minimize impacts to waters of the United States, waters of the state, riparian habitat, and special-status species habitat.

BIO-13: Environmentally Sensitive Areas

Wetlands, waters, riparian habitat, designated critical habitat, and special-status species habitat—including that of Ornduff’s meadowfoam—will be delineated as ESAs on contract plans and defined in contract specifications. ESAs outside of the proposed work areas will be specifically identified to avoid during construction. Where work must occur in or adjacent to an ESA, an approved biologist with stop-work authority will be present.”

Comments from Regional and Local Agencies

Comment Letter R-1: City/County Association of Governments of San Mateo County, Kaki Cheung

From: Kaki Cheung <kcheung1@smcgov.org>
Sent: Wednesday, August 17, 2022 4:50 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Cc: Sean Charpentier (C/CAG) <scharpentier@smcgov.org>; Audrey Shiramizu <ashiramizu@smcgov.org>
Subject: Comment Deadline for Caltrans State Route 1 Repair Guidelines

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi John,

Thank you for the opportunity to provide comments on the Caltrans State Route 1 Repair Guidelines. C/CAG appreciates the Department's effort to improve mobility and safety along this critical corridor in San Mateo County.

C/CAG would like to recommend adding the following active transportation projects to Appendix C: "Bicycle and Pedestrian Needs and Projects". These active transportation projects are in close proximity to SR-1, and either parallel or intersect the state facility. In addition, they are part of the Bicycle Backbone Network in C/CAG's Countywide Bicycle and Pedestrian Plan.

R-1-1

Corridor	From	To	Length (miles)	Recommended Bikeway	Recommendation Type	Lead Agency
Oceana Blvd	Manor Dr	Paloma Ave	0.90	Class 2 Bicycle Lane	New	Pacifica
Paloma Ave	Palmetto Ave	Oceana Blvd	0.16	Class 4 Separated Bicycle Lane	New	Pacifica
Sharp Park Rd	Gypsy Hill Rd	Bradford Way	0.91	Class 1 Path	Upgrade	Pacifica
Clarendon Rd	Palmetto Ave	Lakeview Ave	0.07	Class 3b Bicycle Boulevard	Upgrade	Pacifica
Clarendon Rd, Francisco Blvd	Oceana Blvd	Bradford Way	0.35	Class 2 Bicycle Lane	Upgrade	Pacifica
Bradford Way	Sharp Park Rd	Westport Dr	0.40	Class 2b Buffered Bicycle Lane	Upgrade	Pacifica

Thank you for your consideration and please contact my staff Audrey Shiramizu (copied on this email) if you have any questions.

Sincerely,

Kaki

Kaki Cheung
Program Director
City/County Association of Governments of San Mateo County (C/CAG)
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Redwood City, CA 94063
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Phone: 650-363-4105
www.ccag.ca.gov

Response to Comment Letter R-1: City/County Association of Governments of San Mateo County

R-1-1. Thank you for your comment. Although these bicycle and pedestrian needs are not part of the Build Alternative, Caltrans will continue to coordinate with stakeholders on future bicycle and pedestrian improvements. C/CAG provides further information about their efforts regarding this topic in their Countywide Bicycle and Pedestrian Plan that can be found online at, https://ccag.ca.gov/.

Comment Letter R-2: City of Half Moon Bay, Maziar Bozorginia

THE CITY OF
HALF MOON BAY
CALIFORNIA

August 17, 2022

Caltrans, District 4
Office of Environmental Analysis
Attn: John Seal, Associate Environmental Scientist
P.O. Box 23660, MS: 8B
Oakland, CA 94623-0660

via email: john.seal@dot.ca.gov

RE: Comments on the Draft Initial Study with Proposed Negative Declaration for the State Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130)

To Whom It May Concern:

R-2-1

The City of Half Moon Bay thanks you for the opportunity to submit the following comments on the San Mateo State Route (SR) 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130) Draft Initial Study with Proposed Negative Declaration (IS/ND). The Project seeks to rehabilitate existing pavement, improve existing traffic and transportation facilities, install Complete Streets elements, and install traffic operations system along SR 1 from Half Moon Bay to Moss Beach (PM 27.5 to PM 34.8; also, TOS on SR 92 at PM 0.2). The City appreciates the effort Caltrans, especially Project Management, in its stakeholder coordination and commitment to finding opportunities to coordinate improvements and meet community needs. The following comments are based on staff's review of the project documents, the City's Capital Improvement Program, Bicycle Pedestrian Master Plan & City's Certified Local Coastal Program and Land Use Plan.

R-2-2

Project Coordination

The community appreciates that the Project intends to improve and implement many needed connectivity improvements, especially for non-motorized users. Many of the improvements being considered are reflected in the City's Bicycle and Pedestrian Master Plan and Capital Improvement Program. The City has been working to connect the remaining gaps along Highway 1 and this project looks to address locations that are in dire need of improvements. As staff has mentioned before, the City is currently working on its Highway 1 Safety and Operational Improvement project (EA 04-4H710) to signalize the intersection of Terrace Avenue/Highway 1, add a new class 1 multi-modal path from Main Street to Spindrift Way among other improvements. As Caltrans completes final design, the City's project should be considered as we are slated to move forward with construction by the end of Fiscal Year 2022/23.

R-2-3

Hydrology

Related to Hydrology, in section 1.4.2 Roadway Rehabilitation of the IS/ND, it is stated that "the roadway profile would be raised by about 0.15 foot at project completion." Has this increase been considered as part of Hydrology modeling efforts for the project? With the City's flat topography and Highway 1 acting as a barrier,

R-2-3 Cont.

Highway 1 channelizes flows through its culverts from the hills to the east and into farms and neighborhoods as it travels to the westward towards the Pacific Ocean. Section 1.4.7 Drainage Inlet, Culvert, and Dike Replacement, anticipates "replacement of 12-inch-diameter pipes with 18-inch-diameter pipes". Any increase in pipe and culvert diameters also could cause unintended downstream impacts such as sediment transport, scouring and erosion. More information is needed to determine the potential impacts.

R-2-4

Complete Streets

In section 1.4.8 Complete Streets, location of complete street elements is shown on Figure 1-7. It seems that the intersection of Highway 1 and Poplar Street has been left off the list of improvements. Poplar Street serves as a collector street that connects downtown Half Moon Bay to Poplar Beach and the scenic California Coastal Trail. This intersection should be included to receive complete street improvements such as pedestrian refuge locations, additional crosswalk connecting East and West Poplar Street along the northern leg of the intersection.

Another welcomed improvement the project is considering is pedestrian facilities along the wester side of SR 1, from Kelly Avenue to San Mateo Road (SR 92). We appreciate the consideration of a class 1 pathway and having at least a sidewalk would greatly improve safety for the pedestrians and cyclists currently using the existing shoulders. Caltrans should consider ways to connect this to the existing bike trail that runs underneath the Pilarcitos Creek Bridge within this segment.

R-2-5

Permitting

IS/ND Sections 1.8 Necessary Permits and Approvals, 2.2.11 Land Use and Planning, and 3.1.4 Coastal Zone Coordination acknowledge that the project is in the coastal zone and would be governed in part by the City's Local Coastal Program and Land Use Plan (LCPLUP) and that it must comply with its policies. The City's LCPLUP characterizes the proposed improvements as Public Works and requires that all public works projects within the City's coastal zone obtain a Coastal Development Permit (CDP) or exemption from CDP requirements. The IS/ND should clarify that the proposed project is partially within the City's CDP permit jurisdiction; however, any issued CDP will be ultimately appealable to the California Coastal Commission.

Summary

In summary, Caltrans should consider revising the final environmental document based on the comments provided in this letter. The City looks forward to working with Caltrans through the final design phase.

Sincerely,

Maziar Bozorginia

Maziar Bozorginia, P.E.
City Engineer

Cc: John Doughty, Half Moon Bay Public Works Director
Jill Ekas, Half Moon Bay Community Development Director
Chanda Singh, San Mateo County Senior Transportation Planner
Len Erickson, Midcoast Community Council, Member
Kelly Ma, Caltrans Project Manager

Response to Comment Letter R-2: City of Half Moon Bay

R-2-1. Thank you for your introductory statements. Please see the ensuing comment responses.

R-2-2. Thank you for your comment. The Highway 1 Safety and Operational Improvement Project, as well as the Eastside Parallel Trail Expansion Project and City of Half Moon Bay Bicycle and Pedestrian Master Plan, have been added to Table 2-7 of the IS/ND for documentation.

R-2-3. The commenter requests that the IS/ND present more information on potential impacts related to hydrology, specifically requesting analysis within Section 1.4.7 Drainage Inlet, Culvert, and Dike Replacement; and Section 1.4.2, Roadway Rehabilitation.

Caltrans has considered the increase of 0.15 foot across the entire Project location and determined in the Section 2.2.10, Hydrology and Water Quality, that the Project would not cause substantial alteration of the natural flow of waters and that no impact would occur. Therefore, Caltrans has determined that additional analysis is not needed.

R-2-4. Thank you for your comment. This comment requests that the intersection of SR 1 and Poplar Street be included as a design element for this Project, and that it be included in the list of Complete Streets improvements to receive improvements such as pedestrian refuge locations and an additional crosswalk connecting East and West Poplar Street along the northern leg of the intersection. The improvements suggested in this comment would substantially increase the scope of work at this location, and would include new unpaved surfaces that have not been considered. Although this intersection is not part of the Build Alternative, that does not preclude it from being examined in a future Project.

The comment additionally requests that pedestrian facilities be considered along the western side of SR 1, from Kelly Avenue to San Mateo Road (SR 92). Please note that the potential sidewalk between Kelly Avenue and SR 92 has been removed from the Build Alternative. However, Caltrans will continue to coordinate with stakeholders on implementing future improvements.

Lastly, the commenter requests that Caltrans consider ways to connect the Project to the existing bicycle trail that runs underneath the Pilarcitos Creek Bridge in this segment. Although connecting the Project to the existing bicycle trail that runs underneath the Pilarcitos Creek Bridge is not part of the Build Alternative, Caltrans will continue to collaborate with the City of Half Moon Bay and other stakeholders to seek future improvements.

R-2-5. See the response to Comment R-3-3.

Comment Letter R-3: County of San Mateo Planning and Building, Chanda Singh

COUNTY OF SAN MATEO
PLANNING AND BUILDING

County Government Center
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Redwood City, CA 94063
650-363-4161 T
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August 17, 2022

Via Email – john.seal@dot.ca.gov
Caltrans, District 4
Office of Environmental Analysis
ATTN: John Seal, Associate Environmental Scientist
P.O. Box 23660, MS: 8B
Oakland, CA 94623-0660

SUBJECT: Comments on the Draft Initial Study with Proposed Negative Declaration for the State Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130)

To Whom It May Concern:

R-3-1

San Mateo County appreciates the opportunity to submit the following comments on the San Mateo State Route (SR) 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130) Draft Initial Study with Proposed Negative Declaration (IS/ND) (https://dot.ca.gov/-/media/dot-media/district-4/documents/d4-environmental-docs/0q130-sr-1-multi-asset-roadway-rehabilitation/2022-07-07-0q130-ded-final-508-a11y.pdf). The Project seeks to rehabilitate existing pavement, improve existing traffic facilities, install Complete Streets elements, and install traffic operations system (TOS) elements along SR 1 from post mile (PM) 27.5 to PM 34.8, and install TOS on SR 92 at PM 0.2. We appreciate Caltrans' efforts in ongoing coordination with the County and finding opportunities to refine the Project to better meet community needs. The following comments are based on staff's review of the Project's IS/ND, the County's Certified Local Coastal Program, proposals in County plans, and County processes to inform the future Coastal Development Permit.

R-3-2

Community Needs, Project Description, and Ongoing Coordination

We appreciate that the Project intends to implement several of the much-needed complete streets improvements identified Connect the Coastside: the San Mateo County Midcoast Comprehensive Transportation Management Plan, adopted by the County Board of Supervisors adopted in July 2022, and the Unincorporated San Mateo County Active Transportation Plan. These include Class 2 bike lanes on SR 1, ADA curb ramp improvements, completing pedestrian crossings at SR 1 / Coronado Street, and others. We look forward to continued coordination with Caltrans during the Project's future phases to ensure consistency in implementation with Connect the Coastside's recommendations and continue to seek opportunities to leverage the Multi-Asset Project to further community goals.

We appreciate IS/ND's Section 1.4.9.1 Coordination with Local Transportation Plans, and Pedestrian Crossings on SR 1 at Surfer's Beach (p.1-13), which identifies the need to coordinate moving forward to evaluate a pedestrian crossing of SR 1 near Surfer's Beach.

R-3-2 Cont.

In addition to the County, coordination with the City of Half Moon Bay, County Harbor District, Granada Community Services District, and others will be necessary. We also recommend updating this section for the final environmental document to reflect that the Board of Supervisors adopted Connect the Coastside in July 2022. The County recently updated its webpage as well: to access Connect the Coastside, please visit: https://www.smcgov.org/planning/connect-coastside.

Section 1.4.9 Complete Streets (p.1-10) identifies that "Transit stops would be paved, and new sidewalks would be connected along SR 1." We encourage Caltrans to continue working with SamTrans to implement additional transit stop amenities as part of this project, such as benches, shelters, lighting, and bike racks. At minimum, we encourage Caltrans to ensure the design includes adequate pavement and sidewalk width for future transit stop amenities while maintaining ADA accessibility. This would be consistent with Connect the Coastside's recommendations to improve existing bus stops to create a safer and more comfortable waiting environment, given the long waiting times between buses.

During stakeholder engagement for Connect the Coastside, community members shared that there are opportunities to improve the culverts at Arroyo de en Medio in Miramar to support pedestrian crossings of SR 1. We encourage Caltrans to look for opportunities to address pedestrian access as part of the Project's culvert replacement and/or repair at this location.

Connect the Coastside includes data and evaluation recommendations, including providing annual reports on projects and conditions in the Plan's area. Section 1.4.6 describes locations for new traffic management systems that will provide data on conditions on SR 1 and SR 92. The County would like to coordinate with Caltrans to access and/or analyze this data for reporting and to support future project development.

In 2023, the County will be undertaking roadway projects in El Granada to improve school safety to Wilkinson School and El Granada Elementary School, including the addition of a stop sign with marked crossing on northbound Coronado Street at Avenue Alhambra. We can coordinate with Caltrans as needed.

R-3-3

Permitting

IS/ND Sections 1.8 Necessary Permits and Approvals (p.1-22), 2.2.11 Land Use and Planning (p.2-35), and 3.1.4 Coastal Zone Coordination (p.3-2) acknowledge that the project is in the coastal zone and would be governed in part by the County's Local Coastal Program (LCP) and that it must comply with the policies of the LCP. San Mateo County's LCP characterizes the proposed improvements as Public Works (LCP Policy 2.2(b)) and requires that all public works projects within the County's coastal zone obtain a Coastal Development Permit (CDP) or exemption from CDP requirements. The IS/ND should clarify that the proposed Project is partially within San Mateo County's CDP permit jurisdiction; however, any issued CDP will be appealable to the California Coastal Commission (CCC) (PRC Section 20603).

LCP Consistency

As part of the CDP process, it will be necessary for Caltrans to demonstrate consistency with the County's LCP. IS/ND Section 2.2.11 Land Use and Planning (p.2-34) includes a preliminary consistency analysis, with Table 2-4 (p.2-38) summarizing the Project's potential impacts per key components of the LCP. LCP Policy 2.48(b) requires roadway improvements be consistent with all applicable policies of the Local Coastal Program, including, but not limited to, the Sensitive Habitats Component. Potential LCP consistency issues are described further below:

Sensitive Habitats Components

LCP Policy 7.1 defines sensitive habitats as any area in which plant or animal life or their habitats meets certain criteria, including habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission. Applicable policies include but are not limited to Policy 7.3 Protection of Sensitive Habitats, Policy 7.5 Permit Conditions, and Policy 7.42 Development Standards. Section 2.2.4 Biological Resources (p.2-7) states that the biological study area (BSA) is the Project's footprint, along with buffer areas that construction activities may directly or indirectly impact. Section 2.2.4.1(a) (p.2-8) states that the BSA contains potential habitat for special-status species that have moderate to high potential to occur. As part of the permit process, Caltrans will need to coordinate closely with the County to avoid, minimize and mitigate temporary and permanent impacts to sensitive habitats and species, including implementation of the IS/ND's identified avoidance and minimization measures.

R-3-4

Public Works Components

LCP Policy 2.50 Improvements for Bicycle and Pedestrian Trails (h) states, "Ensure that no roadway repair or maintenance project blocks or damages any existing or formally planned public trail segment or, if such an impact is not avoidable, that an equal or better trail connection is provided in conjunction with that repair and maintenance project either directly by CalTrans or through CalTrans' funding to a third party." As part of the permit process, it will be necessary to demonstrate consistency and that the proposed project will not preclude implementation of adopted plans.

Section 1.4.10 Utility Relocation states "existing utilities may need to be relocated during construction" (p.1-13). The Montara and Granada Lighting Districts have lighting facilities along SR 1. Care must be taken to protect the existing light poles and any wiring associated with them during construction. At the time Caltrans intends to seek a Coastal Development Permit, project plans will need to state that any damages to the Lighting District facilities during construction shall be repaired by the Contractor per the Lighting District standard details and at the Contractor's expense; and the Lighting Districts must be notified of any damages to the lighting facilities and any repairs must be inspected by Lighting District representatives. The Lighting Districts will review for consistency.

Visual Resources Component

LCP Policy 8.30(b) designates SR 1 north of Half Moon Bay as a County Scenic Corridor; therefore, LCP Policy 8.31 Regulation of Scenic Corridors in Rural Areas applies to the

R-3-4 Cont.

project, which includes application of policies of the Scenic Road Element of the County General Plan, rural design policies of the LCP, and section 6325.1 of the Resource Management Zoning District as special regulations protecting scenic corridors in the Coastal Zone. The Project includes guardrail replacement (Section 1.4.3) to standard Midwest guardrail systems and incorporation of flush and raised median treatments where feasible (Section 1.4.9). IS/ND Section 2.2.1 Aesthetics (p.2-2) states that the guardrail finish will include a matte finish on exposed metal surfaces to address reflectivity; it does not discuss potential materials for the medians. As part of the CDP process, Caltrans will need to demonstrate consistency with the policies above, ensuring coastal views are not impacted and materials chosen will align with stated policies.

R-3-5

Hydrology and Water Quality

Section 1.47 Drainage Inlet, Culvert, and Dike Replacement (p.1-9) describes the anticipated work based on a preliminary review of existing drainage elements. Section 2.2.10 Hydrology and Water Quality (d) (p.2-33) states a single location on SR 1 at Surfer's Beach is susceptible to tsunami and seiche inundation and is in a Federal Emergency Management Agency (FEMA) management system for sites with potential to affect water quality in the project area. FEMA FIRM panel 06081C0138F lists flood zone AE for El Granada Creek (also known as Deer Creek) and Denniston Creek. Please confirm that the culverts at these creeks, at approximately PM 32.7 and PM 33.4 respectively, were included in the assessment of existing drainage facilities, as the impacts to flood hazard areas should be accounted for if these culverts require replacement.

R-3-6

Land Use and Planning

The County is in the process of developing Plan Princeton (https://www.smcgov.org/planning/plan-princeton). The purpose of this project is to make a comprehensive update to the policies, plans, and standards regulating the Princeton area, including an update to the land use plan for Princeton. The County suggests referencing the draft Plan in the final environmental document, and specifically as part of Section 2.2.11 Land Use and Planning (p.2-34).

R-3-7

Transportation

Section 2.2.17 Transportation (a) on p.2-48 references consistency with applicable plans. The section should reference and evaluate consistency with the 2021 Unincorporated San Mateo County Active Transportation Plan, 2022 Connect the Coastside, and Plan Princeton (draft).

Section 2.2.17 Transportation (d) includes TRANS-01: Development of a Transportation Management Plan (p.2-49) as a proposed avoidance and minimization measure. The County looks forward to coordinating with Caltrans on the Plan and requests a minimum of three weeks for the County to review and comment on the draft Transportation Management Plan prior to finalization.

R-3-8

Geology and Soils

Section 2.2.7.1 Geology and Soils (c) (p. 2-24) discusses unstable soil conditions and refers to future geotechnical and geological study during the final design phase. The potential hazards discussed in this section did not include coastal effects, including but not limited to bluff retreat, coastal erosion, and sea level rise. The County notes that some of these hazards are preliminarily discussed in the Section 2.3 Climate Change (comments below). Additional evaluation should be included in the future geotechnical and geological study in collaboration with the County's geotechnical reviewer.

Section 2.2.7.1 (d) cites the Uniform Building Code (1994) as the reference section. In the future geotechnical and geological study, Caltrans should use current code sections to guide investigations and design.

R-3-9

Climate Change

Section 2.3 Climate Change (p.2-58) describes applicable policies and the project's potential impacts. As described in Section 2.3.5.1 Sea-Level Rise Analysis, the IS/ND uses a high emissions scenario with a 1-in-20 probability of 4.4 feet of sea level rise by 2100 for its analysis (closest scenario is 5 ft in the NOAA viewer and 4.9 ft with 100-year storm in the OCOF viewer). The State of California Sea-Level Rise Guidance 2018 Update (Guidance) generally recommends decisionmakers use the medium-high, or 1-in-200 probability, sea-level rise projection for "longer lasting projects with less adaptive capacity and medium to high consequences should sea-level rise be underestimated" (p.27). The Guidance further recommends using an extreme risk aversion scenario (10.2 ft of SLR by 2100) for critical infrastructure. However, the Guidance provides flexibility to choose scenarios based on the lifespan of the project and risk tolerance.

San Mateo County's Local Hazard Mitigation Plan uses a scenario of 6.6 feet with 100-year storm by 2100 for its analysis (this is the closest available OCOF data comparable to a high emissions scenario with a 1-in-200 probability or 6.9 ft of SLR). This scenario puts the water level along the border of SR 1. If using an extreme risk aversion scenario (9.8 feet sea level rise in the OCOF viewer), sections of SR 1 around Surfer's Beach are inundated by water with or without the 100-year storm. In addition to inundation, the Our Coast Our Future Hazard Map (https://ourcoastourfuture.org/hazard-map/) shows cliff retreat (erosion) overlapping with Highway 1 at 2.5 feet of sea level rise. Under the IS/ND's 1-in-20 probability scenario, 2.4 feet of sea level rise would occur by 2070. Under the 1-in-200 probability scenario used by the County for its Local Hazard Mitigation Plan, 2.6 feet of sea-level rise would occur by 2060. Under the extreme risk aversion scenario, 2.7 feet of sea-level rise would occur by 2050.

The IS/ND states on p.2-71 that "Surfer's Beach adjacent to SR 1 in the community of El Granada is vulnerable to erosion and wave run up at locations under the sea level rise scenarios examined for this analysis. However, the projected sea level rise scenario to the end of the century would extend beyond the service life of the proposed pavement work at this location." Caltrans should clarify the service life of the Project's various components, especially in the Surfer's Beach area, to justify the use of the 1-in-20 probability scenario.

R-3-9 Cont.

The IS/ND goes on to state on p.2-71 "Flood risk management at Surfer's Beach to address inundation of these adjacent features over the long term would require substantial shoreline protection efforts that are outside the purpose and need, and the service life of the work proposed for the project. Caltrans welcomes coordination and expects to participate in discussions with stakeholder groups to identify long term solutions to address sea level rise at Surfer's Beach that may also affect the existing transportation facilities." Inundation and soil erosion has been and will continue to be a concern that principally impacts SR 1. The County looks forward to Caltrans taking a leadership role in bringing stakeholders together to identify long term solutions that preserve access and mobility.

R-3-10

Errata

In our review, we found a few discrepancies that Caltrans should consider revising for clarity in the final environmental document:

- Section 1.8 Necessary Permits and Approvals: Table 1-3 (p.1-22) should list appropriate agency as "San Mateo County," not "San Mateo County Local Coastal Plan". Similarly, the appropriate agency should be listed as "City of Half Moon Bay," not "City of Half Moon Bay Local Coastal Plan."
- Section 2.2.13.1 Noise (a) on p.2-43, references "the closest sensitive noise receptors would be residences and commercial businesses in the Moss Beach, El Granada and Miramar areas of Half Moon Bay..." This should be revised as it conflates unincorporated communities with Half Moon Bay. Suggested revision: "The closest sensitive noise receptors would be areas within 0.5 miles north and south of project locations, including residences and commercial businesses in the unincorporated communities of Moss Beach, Princeton, El Granada, and Miramar, and areas in the City of Half Moon Bay."
- Section 2.2.21 Mandatory Findings of Significance (b), references findings from the Highway 1 Safety and Mobility Improvement Study. We suggest expanding this language to additional plans that include recommended projects, such as Connect the Coastside, Plan Princeton (draft), and the Unincorporated San Mateo County Active Transportation Plan.

Sincerely,

Chanda Singh
Senior Transportation Planner

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Claire Toutant, Midcoast Community Council, Member
Len Erickson, Midcoast Community Council, Member
Peter Allen, California Coastal Commission, Senior Transportation Program Analyst
Kelly Ma, Caltrans, Project Manager

Response to Comment Letter R-3: County of San Mateo Building and Planning

R-3-1. Thank you for your introductory statements. Please see the ensuing comment responses.

R-3-2. Caltrans appreciates the input on the Build Alternative and looks forward to continued coordination with San Mateo County and SamTrans on Project elements that serve common goals.

Regarding updates to Section 1.4.9.1, the final Initial Study has been revised to update this section, providing a link to the current Connect the Coastside webpage.

Regarding recommendations for the transit stop amenities, Caltrans will coordinate with SamTrans during the final design phase to consider elements that are appropriate for inclusion in the final build.

Regarding the use of drainage culverts for pedestrian passage, please see the responses to Comments I-13-1 and I-16-1. Drainage culverts are not intended for pedestrian passage and are not a safe use of this facility. Caltrans does not condone, support, or approve of pedestrian passage through its drainage systems. Please do not enter drainage culverts.

Regarding traffic data sharing, Caltrans traffic cameras can be viewed online at the Caltrans QuickMap web page (https://quickmap.dot.ca.gov/), and camera livestreams can be viewed for shorth durations at https://cwwp2.dot.ca.gov/vm/iframemap.htm.

Additionally, traffic data collected by the Project would be posted on Caltrans' performance measurement system (PeMS) site https://pems.dot.ca.gov/. Access to the PeMS site is subject to Caltrans approval of an application for site use and Caltrans' terms of use for the site. Currently, there are no data being collected on SR 1 in the Project area available on PeMS because there are no sensors in place for traffic data collection. The Project is proposing TOS elements to address this gap in data collection on SR 1 in the Project area to better inform traffic planning decisions along this corridor. Caltrans and San Mateo County OES have been working together to better integrate incident management operations between the two agencies. Initial efforts have centered around the San Mateo Smart Corridor and the Peninsula cities. One of the key initial activities is to establish a connection to the County EOC building and the Caltrans fiber-optic system that will allow for future sharing of information, including SMC alerts and emergency vehicle preemption to supplement current practices.

Regarding coordination on El Granada roadway project that may intersect efforts in the Caltrans right-of-way, Caltrans looks forward to continued efforts and partnership with San Mateo County.

R-3-3. Caltrans understands that the Project partially occurs within the Coastal Zone that is governed by San Mateo County's LCP. A Coastal Development Permit through San Mateo County's LCP was included in Section 1.8, Table 1-3. Caltrans also understands that any issued Coastal Development Permit may be appealed to the California Coastal Commission, but this scenario is not an assumed course for permit processing. Clarification has been added to Table 1-3, in accordance with the recommendations provided in San Mateo County's comments.

R-3-4. Caltrans appreciates the early technical assistance provided in these comments. Caltrans will work with all agencies with jurisdiction during the Project's final design and permitting phase to provide a complete and appropriate description and analysis of the build alternatives refined design at that stage. Caltrans looks forward to coordinating with San Mateo County, the City of Half Moon Bay, and California Coastal Commission staff during the permitting stage.

R-3-5. No culvert replacement or other instream work is anticipated at Denniston Creek or Deer Creek. The existing culverts at Denniston Creek and Deer Creek were evaluated during field visits in 2019 and found to be in good condition. Therefore, no culvert replacement is proposed at these locations.

R-3-6. Thank you for making Caltrans aware of the scoping work that has been developed by San Mateo County. Please note that the draft plan referenced in this comment does not appear to be posted at the website link provided (checked on September 12, 2022). However, other Project information was available, and it appears that San Mateo County's Plan Princeton Project primarily addresses land use outside of the Caltrans right-of-way, but also includes some recommendations for bicycle, pedestrian, and signage improvements within Caltrans' right-of-way. Caltrans looks

forward to coordinating with and providing oversight on any county plans for improvements that would occur within Caltrans' right-of-way. Caltrans invites the county to reach out to Caltrans to make us aware of any plans or issues where Caltrans input is appropriate. Because there are no land use designations in the Plan Princeton document showing in the Caltrans right-of-way, and the proposed Build Alternative for Caltrans' Project would not impact the existing or proposed land uses, the county's study is not referenced in the final Initial Study.

R-3-7. Thank you for this comment. Caltrans looks forward to coordination with San Mateo County.

R-3-8. Please note that the responses provided in Section 2.2.7 are within the context of the CEQA Guidelines, which identify specific hazards related to geology and soils. Caltrans understands that hazards such as bluff retreat, coastal erosion, and sea-level rise are present in the SR 1 corridor. The Project proposes to extend the lifespan of roadway facilities. However, this does not preclude future projects from studying and making improvements to address long-term threats such as sea-level rise.

R-3-9. Caltrans states in its Project description that the Project is proposing a 20-year flexible rehabilitation strategy. This means that the useful life of the repaved roadway would be 20 years after construction. Caltrans believes that the analysis provided and the assumptions made in selecting a risk scenario are appropriate.

R-3-10. Thank you for these additional considerations.

- Section 1.8, Table 1-3, has been revised as San Mateo County recommended.
- Section 2.2.13.1 has been revised to refer to Moss Beach, El Granada, and Miramar as communities, rather than "areas of Half Moon Bay."
- Section 2.2.21 has been updated to describe local plans and projects that are relevant to the SR 1 corridor, including the plans described in this comment. Please refer to Table 2-7.

Comment Letter R-4: Midcoast Community Council, Claire Toutant

Midcoast Community Council

An elected Advisory Council to the San Mateo County Board of Supervisors

representing Montara, Moss Beach, El Granada, Princeton, and Miramar

PO Box 248, Moss Beach, CA 94038-0248 | midcoastcommunitycouncil.org

Claire Toutant | Gregg Dieguez | Michelle Weil | Len Erickson | Jill Grant | Dave Olson | Dan Haggerty

Chair Vice-Chair Treasurer Secretary Asst. Secy.

August 25, 2022

Via Email – john.seal@dot.ca.gov
Caltrans, District 4
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SUBJECT: MCC Comments on the Draft Initial Study with Proposed Negative Declaration for the State Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130)

To Whom It May Concern,

The San Mateo Midcoast Community Council appreciates the opportunity to comment on the State Route 1 Multi-Asset Roadway Rehabilitation Project *[EA 04-0Q130 / Project ID 04-1800-0053]* Draft Initial Study with Proposed Negative Declaration (Draft IS/ND). The MCC recognizes that this project has been conducted with considerable attention to gathering public comment with several special sessions. The final public presentation had publicity issues which have been addressed with extended comment deadlines.

R-4-1

We believe this initial Draft IS/ND is, in some instances, too general to allow a complete Negative Declaration Review, as noted below. We expect that continued, active communication between Caltrans and all the partners will continue to address the concerns listed below, both for this project and for subsequent efforts – such as Complete Streets – which we list below.

Note that this project is in the coastal zone and would be governed in part by the County's Local Coastal Program (LCP) and will require a Coastal Development Permit (CDP) or exemption from CDP requirements and will be appealable to the California Coastal Commission (CCC). It is with that sensitivity that we offer the following comments.

1. Roadway Rehabilitation, (Section 1.4.2)

R-4-2

The need for rehabilitation of the physical roadway is fully necessary and supported. Bicycle and pedestrian safety have received full recognition as important for this project. While SR-1 is a two lane road with many sections that have additional elements, it would be helpful at the start to identify the lane width as 12 feet and the shoulder width as four feet as a standard. From this starting point, the presence of additional lanes, medians, parking on shoulders, and implementation of formal bicycle lanes can be identified as add-ons to width.

R-4-2 Cont.

1. For each segment of SR-1, will Caltrans provide for review a diagram for the proposed layout of lines, shoulders, street parking, bicycle lanes, etc?
2. Any concrete work needs to be colored to match the surrounding environment.

Specific roadway segments will be discussed in the *Complete Streets* section, below.

2. Guardrail Replacement, (Section 1.4.3)

Figure 1-2 depicts approximately 20 guardrail locations in the project, in approximately 5 miles of roadway.

A. Adverse Impact on Aesthetics

The proposed Midwest guardrails increase an urban/industrial look and feel to what should be a rural/coastal scenic corridor. Similar guardrails recently installed in Pacifica on SR-1 at the new overpass have significant concrete paving for several feet of shoulder and are demonstrably Urban in character, which is inappropriate for the Midcoast scenic corridor. With concrete borders, new guardrails will further undermine the aesthetic feel. The Draft IS/ND mentions guardrail 'crash cushions' without providing photos and specifications. On urban highways, these cushions are large and unsightly.

R-4-3

1. Please provide pictures and specifications for the guardrail cushions intended so we can assess the aesthetic impact.
2. Instead of crash cushions, will Caltrans bend the end rails into the ground to minimize the size and aesthetic detriment caused by the rail ends?
3. Will Caltrans commit to a non-concrete installation around the guardrails, allowing for a better blend with the natural environment?

B. Needs assessment

Section 1.4.3 states that "All guardrails on SR-1 in project area would be removed and replaced …" However, nowhere is there an assessment on the condition of the existing guardrails, many or most of which may be in sufficiently good condition, (albeit not up to current standards), to be effective for decades to come.

1. For each guardrail, please provide a detailed assessment of existing structural condition and expected efficacy over the long term.

3. Conduits, and Traffic Operation System Elements Installation, (Section 1.4.6)

R-4-4

Caltrans Project 2K880 (State Route 1 Traffic Operational Systems Improvements Project), aka TOSI, was presented in public meetings in 2020, and its IS/NegDec was published in 2021. The project addressed all of SR-1 in the City of Half Moon Bay, the Midcoast, and into southern Pacifica. In response to public concerns about the VMS element, the Multi-Asset project eliminated VMS as a project element. Separately, a presentation on the SR-1 Smart Corridor plan was provided. An Intelligent Transportation System (ITS) project is not due to be completed until 2023. So the transition from TOSI to ITS is not ready for public review. Connect the Coastside identified the need for data monitoring of traffic movement. Embedded sensors in the roadway can provide this capability.

R-4-4 Cont.

County Planning has expressed a need for traffic flow information regarding several intersections in this project area. We would prefer Caltrans prioritize installation of inductive loop traffic sensors in the near term to expedite improved traffic planning, which might then affect further implementation of this project.

1. Given that a comprehensive plan for ITS is not yet published for our region, can the technology elements in this Multi-Asset project – other than the embedded, inductive sensors – be deferred until the ITS is ready for public review?

2. In addition to the stated purposes for the CCTV systems, will these systems be equipped to participate in the Amber Alert program, (i.e., reading license plates)?

3. Explain the purpose and need for directional and dome cameras. It is not sufficient to assert that these project elements are needed simply because they don't currently exist in the proposed project area. The MCC recommends the removal of the traffic cameras from the Draft IS/ND. Prioritize installation of inductive loop sensors at Capistrano, Coronado, Frenchman's Creek, and SR-92 as the public *(City of Half Moon Bay and communities of the Midcoast)* has already expressed concerns and objections to cameras during the 2021 public sessions for the proposed Multi-Asset project (Caltrans Project 2K880 State Route 1 Traffic Operational Systems Improvements Project Negative Declaration) where VMS were then eliminated.

4. Explain why embedded roadway sensors (Traffic Monitoring System inductive loop detectors) cannot fulfill the purpose and need to collect data on traffic since their purpose is to detect motor vehicles as they drive over the detectors' wire loops.

4. Drainage Inlet, Culvert, and Dike Replacement, (Section 1.4.7)

R-4-5

SR-1 Medio Creek culvert has been used as a safe pedestrian method to cross under SR-1 for decades. This is a highly valued asset to the families in our community. We want to be sure that any repairs to this culvert will not prevent or reduce its continued use by the community for this purpose.

SR-1 at Surfer's Beach already experiences minor flooding at King Tides, with several feet of sea level rise possible by 2050. Furthermore, Atmospheric River-based storms in the last 4 years have resulted in local daily rainfalls of 6, 7, and now 8 inches of rain in a single storm, overwhelming sewers in Pacifica and Half Moon Bay.[1] It appears that Caltrans' assessments of SLR risks are lower than other expert sources. We encourage a reassessment of Climate Change-related risks based on the most recent science and local data, given that this project will be several years in implementation and closer to 2050.

1. What is the peak storm rainfall level for which the culverts and drainage systems in this project are designed? We strongly suggest that those design criteria exceed our recent storm realities, which have become almost annual.

5. Complete Streets, (Section 1.4.9)

R-4-6

In formulating this comment letter, we find that, in the area of Complete Streets, we have identified several concerns that need to be addressed by the Multi-Asset project (as enumerated below), along with other Caltrans projects and locally sponsored projects, (e.g., Multi-Modal Trail Phase 2 project that extends trail

[1] The natural disaster risks to Moss Beach are documented in this MWSD analysis intended for FEMA:
https://mwsd.montara.org/assets/docs/board/collateral/243/New_Business_2.pdf
They include tsunami, earthquake faults, and flooding risk (Picture 7 and text page 8)

from Coronado to Capistrano). We request that the County work formally with an MCC committee to provide a continuing interface with the various Caltrans transportation projects and issues listed below.

A. The Multi-Modal (Parallel Trail) Phase 2 (Coronado to Capistrano)

In MCC meetings discussing this area of SR-1, GCSD has indicated they are on a path to have two firm projects which should be ready to bring to the public within two years. A related factor is planning for Phase 2 of the Multi-Modal Trail. There is ample room on the eastern edge of ROW for this trail, which would provide a straightforward option for the trail. It is appropriate for Caltrans to also make this land available.

B. SR-1 roadway that crosses Medio Creek – (see #4 above)

There are future needs in this area which can be better assessed when current projects: (Multi-Modal Parallel Trail, Removal of Detour, and Culvert Repair) and plans are finished or better understood.

C. A third crosswalk at Coronado & SR-1

We believe an additional crosswalk is not needed and would further aggravate congestion in this area. Based on our empirical observations of traffic flow at this intersection, particularly during morning rush hour, we recommend additional study before proposing an additional crosswalk at this intersection.

R-4-6 Cont.

The following items relate to SR-1 in the vicinity of Surfers beach:

D. The mid-block crossing at Surfer's Beach should be mentioned in this section 1.4.9.

We suggest that consistency be adhered to in design of mid-block crossings.

E. Parking on the east side of SR-1 between Coronado and Capistrano

This on-shoulder parking serves both public access to Surfer's Beach and patron access to Sam's Restaurant. There is no room for pedestrians to safely leave their cars, and bicycles are often forced into the street due to the parked cars. We believe these risks and others need to be addressed in this project.

F. Coastal erosion

We observe coastal erosion from the impact of the harbor jetty sand level and wave deflection that requires periodic armoring maintenance just to sustain the current road.

1. Does Caltrans have a periodic maintenance strategy for protecting the California Coastal Trail and SR-1?

6. Unaddressed Public Safety Risks

A. There are eucalyptus and other tall trees adjacent to SR-1, for example, at Frenchman's Creek and Medio Creek, which can fall and block emergency responders and evacuation routes in the event of earthquakes, wildfires, or tsunamis. These trees are particularly vulnerable because of their shallow root systems and flammability. We appreciate that Caltrans has undertaken some clearing at these locations, presumably due to CSR Ticket numbers 851069 and 851071, but trees on property outside of the Caltrans right of way remain a threat to public safety and transportation because their height (~100') is sufficient to block the adjacent SR-1 if and when they fall.

R-4-7

R-4-7 Cont.

B. Broadly speaking, there are major disaster risks both to this roadway and to the USE of this roadway for evacuation FROM disasters. Those risks include wildfire, tsunami, flooding, and sea level rise. Some local knowledge on those risks are contained in the Montara Water And Sanitary District paper prepared for FEMA and referenced in footnote 1 above. Comprehensive consideration of those risks and the effect on SR-1 for this and other projects should be discussed between stakeholders in subsequent venues.

    1. What steps will Caltrans take to remove the blockage threats posed by tall trees adjacent to SR-1 on this project's stretch of roadway, e.g., by collaboration with the County and/or adjacent property owners?

7. Conclusion

In summary, there are many necessary and useful aspects to the proposed project. The MCC looks forward to working with Caltrans in understanding and adapting these plans to meet community needs.

Sincerely,

MIDCOAST COMMUNITY COUNCIL

s/Claire Toutant, Chair

CC:

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Ann Stillman, San Mateo County, Director of Public Works
Khoa Vo, San Mateo County, Deputy Director of Public Works
Hanieh Houshmandi, San Mateo County, Associate Civil Engineer
Ryan Rasmussen, San Mateo County, Road Maintenance Manager
Alan Velasquez, San Mateo County, Senior Civil Engineer
Nicholas Calderon, San Mateo County, Director of Parks and Recreation
Chris Hunter, San Mateo County, Chief of Staff
Maz Bozorginia, Half Moon Bay, City Engineer
Peter Allen, California Coastal Commission, Senior Transportation Program Analyst
Kelly Ma, Caltrans, Project Manager

Response to Comment Letter R-4: Midcoast Community Council

R-4-1. Caltrans understands that the Project is in the Coastal Zone, and under the jurisdiction of the San Mateo County and Half Moon Bay Local Coastal Programs, as well as the California Coastal Act.

R-4-2. Thank you for your suggestion regarding lane and shoulder widths. This information was stated in Section 2.2.17, Transportation, but has also been added to Section 1.4.2 for visibility. Please note that the existing alignment of SR 1 would be maintained—no new lanes are proposed.

Regarding the requested layouts of Project features, please note that these documents are not yet available. The final design would be determined during the Plans, Specifications, and Estimates (PS&E) stage of the Project.

Regarding the use of concrete, context-sensitive designs will be implemented to preserve the scenic character of SR 1. Concrete used for the Project (e.g., for roadway rehabilitation and ADA-compliant curb ramps) would generally match existing aesthetics.

R-4-3. No new guardrail is proposed for this Project. Existing guardrail (Metal Beam Guardrail, MBGR) will be replaced with new visually similar guardrail (Midwest Guardrail System, MGS) that meets current safety standards. Concrete vegetation control is used under guardrail to minimize weed growth, and effectively reduces maintenance worker exposure to high-speed traffic without the use of herbicides. These benefits are weighed against visual impact, and concrete vegetation control is not recommended along scenic, undeveloped segments of the coast. Caltrans has evaluated the visual context for all locations of proposed guardrail replacement in the Project corridor and determined that only two segments of MGS construction will require concrete vegetation control. Both are along the northbound shoulder—the first between Main Street and Terrace Avenue; and the second north of Grandview Avenue, where the shoulder is narrow and there is no good maintenance access from behind the guardrail.

R-4-4. The TOS elements of the Project will not be used to read license plates. They will be exclusively used to monitor traffic volumes and patterns. Traffic data collected through WDS may be obtained through a number of readily available commercial and Federal Communications Commission (FCC)-approved detector sensor technologies, such as radar, Bluetooth, thermal imaging, acoustics, WiFi, or dedicated short-range communications (DSRC). In all detection technology alternatives, the data that are temporarily captured through the sensor would not include personally identifiable information (PII) and cannot be used to match with individuals or vehicle owners. The primary purpose of a WDS is to collect traffic parameters, such as volume, occupancy, and travel speeds to support general traffic studies, real-time traffic management strategies, proactive safety applications, and corridor performance monitoring. Examples of possible real-time traffic management strategies include automated incident detection (AID) and adaptive traffic signal operations. An example of corridor

performance monitoring is the Caltrans Mobility Performance Reports (MPR) (see website: https://dot.ca.gov/programs/traffic-operations/mpr/quarterly).

R-4-5. Please see the responses to Comments I-13-1 and I-16-1. Drainage culverts are not intended for pedestrian passage and are not a safe use of this facility. Caltrans does not condone, support, or approve of pedestrian passage through its drainage systems. Please do not enter drainage culverts.

Regarding sea-level rise, the California Ocean Protection Council (OPC) provides the most current accepted estimates for sea-level rise in California. OPC data indicate that sea-level rise will rise to meet or exceed 6.9 feet above current conditions by 2100. Caltrans understands the threat of climate change and sea-level rise, and the Surfer's Beach area is referenced in Section 2.3.5. However, the projected sea-level rise scenario to the end of the century would extend beyond the service life for the proposed pavement work at this location, which is expected to be approximately 20 years. Caltrans has updated its sea level rise analysis in Section 2.3.5.1 of the final Initial Study to consider a more conservative risk scenario. However, this more conservative analysis did not lead to any change in conclusion for potential CEQA impacts on this topic. Caltrans welcomes and expects coordination with stakeholder groups to identify long-term solutions to the threat of sea-level rise through future projects.

R-4-6.

A. Please note that the scope of this environmental assessment is limited to the Build and No Build Alternatives, as described in Section 1.4. However, Caltrans will continue to coordinate with stakeholders on future Complete Streets opportunities along the Coast.

B. Thank you for helping to identify other transportation needs in the area. As stated above, Caltrans will continue to coordinate with stakeholder groups, and will work to incorporate such needs into future projects.

C. The proposed crosswalk on the southern leg of the Coronado Street intersection would occur at an existing signalized intersection. The added leg would only affect traffic turning left onto SR 1 from Coronado Street, and turning right from SR 1 onto Coronado Street. The added pedestrian safety is a priority at this intersection, which serves children crossing to and from school.

D. Please note that, although a potential crossing on SR 1 at Surfer's Beach is referenced in Section 1.4.9, it is not part of the Build Alternative at this time. Caltrans will continue to explore the feasibility of this potential crossing and its optimal placement with San Mateo County and local stakeholders.

E. Thank you for highlighting this potential safety concern. Although this is not part of the Build Alternative, that does not preclude it from being studied for a future project.

F. Please note that addressing the long-term effects of sea-level rise and coastal erosion is not part of this Project, because it is primarily a maintenance project to enhance roadway facilities and extend their lifespan. The expected lifespan of pavement and roadway facilities with the Project is approximately 20 years. However, as stated in Section 2.3.5, Caltrans welcomes and expects coordination with stakeholder groups to identify such solutions for future projects.

The Maintenance and Traffic Operations Division is responsible for providing day-to-day highway service to the traveling public. Field crews are responsible for daily maintenance of their assigned highway segments. Annual activities include pothole patching, culvert cleaning, litter removal, paving, and much more. Caltrans is also responsible for maintaining bike and pedestrian trails within Caltrans right of way in the Project area.

R-4-7. Thank you for your comments. Caltrans appreciates that MCC has identified additional public safety concerns along SR 1. Although these are not within the scope of the proposed Project, Caltrans will continue to coordinate with MCC and other stakeholders to address potential safety risks.

Comments from Individuals

Comment Letter I-1: Dan Kennedy

From: Dan Kennedy <tweak.monkey@gmail.com>
Sent: Monday, July 11, 2022 9:00:26 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: Re: Moss Beach / highway 1

EXTERNAL EMAIL. Links/attachments may not be safe.

I-1-1

Ps -
There is an encouraging and strong crowd of people riding bikes on the coast. We see more every weekend - on the coastal trail, over the bluffs trail, on Airport road (or even on the highway near the airport!), and all over El Grenada and Half Moon Bay. And ebikes lately. I'm sure you know this but it's great to see and any improvements will be used and welcome.

> On Jul 11, 2022, at 8:37 PM, Dan Kennedy <tweak.monkey@gmail.com> wrote:
>
> Hi John
> I'm very excited to hear about the Route 1 rehabilitation project.
>
> I moved to Moss Beach about a year ago and both my wife and I ride our bikes often, especially on weekends when traffic is high.
>
> I would like to tell you as a resident of this small town, the worst part of any bike trip to the South is crossing highway 1. I hope there will be some kind of over/underpass, tunnel or flyover to allow people to cross some day or bike adoption will never be as convenient or safe as it would be. I'm sure it's a very tall order for cost and the politics involved but the highway crossing is scary, slow, stressful, and really kills the mood when we leave to ride to Half Moon Bay or El Grenada. The new crosswalk is very helpful but about 1/5th of what people need in my opinion- cars really speed through here 50+ mph and it's scary to press that crosswalk button and hope everyone will stop.
>
> Even if there's a very safe protected bike lane on the East side of highway 1, there still needs to be something better for crossing than the crosswalk or stoplights at Princeton / pillar point - also a very scary place to ride a bike.
>
> Thanks for reading this and I can't wait to hear about any improvements in this corridor.
> -Dan Kennedy. Moss Beach

I-1-2

Response to Comment Letter I-1: Dan Kennedy

I-1-1. Thank you for your comments. Please see the next comment response regarding your suggestion.

I-1-2. Thank you for your comment. Your suggestion has been noted. Although the scope of this environmental assessment is limited to the Build and No Build Alternative described in Section 1.5 of the Draft Environmental Document, that does not preclude the evaluation and implementation of additional bicycle improvements in future projects. The Caltrans District 4 Bicycle Plan identifies bicycle needs and future potential improvements, including along SR 1 in San Mateo County. Please refer to this page on the Caltrans website for additional information: https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-bike-plan.

Comment Letter I-2: Rachel Bross

From: Rachel <rleebross@gmail.com>
Sent: Wednesday, July 13, 2022 2:20 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: Highway 1/92 Project comment

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello John Seal-

I am so happy to see that CalTrans is looking for comments on their upcoming project. I live at 547 Filbert St, Half Moon Bay, CA 94019, and have owned this property since 2018. I am basically at the corner of Highway 1 and Filbert. Here are my comments, and feel free to call me if you have any questions.

I-2-1

- The turn toward town (East) on Filbert Street off Highway 1 is by far the most dangerous intersection in town. I have witnessed severe accidents at all times of the day and night where while turning off or crossing the highway, cars collide and spin into the neighborhood. The previous owners of my house had a car plunge into the front room-- while their family was watching tv. Please consider closing the turn lane, and blocking Filbert to through traffic off Highway 1. East Filbert is too narrow for turning cars who cut into the oncoming lane constantly, and the lack of sight of turning cars from across the highway is so dangerous. Traffic should be encouraged to go to either light to cross Highway 1- Kelly or Poplar. Other streets in this section of town are blocked off, Filbert should be too.

I-2-2

- Drainage. Oh my gosh-- Each storm that comes through town leaves a drainage mess on the East side of Highway 1 at Filbert-- last year during the biggest storm, water flooded my property and my home. The culvert and the drain going under the highway are/were cemented on the West side so water backed up in the field on Filbert and One, across the street from my house. Runoff from the highway and running down Filbert combine, and with nowhere to go just builds up til we flood. It is a drainage nightmare-- that I have reported yearly to both the City of Half Moon Bay and to you, CalTrans. Also, cars turning off Highway One in the rain storms onto Filbert choose between driving through a deep flood or turning into oncoming traffic-- creating a very dangerous situation, and another reason this turn should be eliminated.

So, there you have it. Please consider the above while writing up your State Route1 Multi-Asset Roadway Rehab Project.

Kindly,

Rachel Bross
547 Filbert Street
Half Moon Bay, CA 94019
775 901 2500

Response to Comment Letter I-2: Rachel Bross

I-2-1. Thank you for your comment. Please note that the scope of this environmental assessment is limited to the Build Alternative and No Build Alternative described in Section 1.5 of the Draft Environmental Document. However, this does not preclude future projects from making additional improvements. Your comment was forwarded to Caltrans Engineering for additional review of the SR 1/Filbert Street intersection. At this

location, Caltrans Engineering states that the existing left-turn lanes are needed for access for the local residents.

I-2-2. Thank you for providing these details regarding drainage in your neighborhood. As described in Section 1.4.7 of the Draft Environmental Document, multiple drainage elements throughout the Project limits would be rehabilitated or replaced, including several adjacent to your home.

Comment Letter I-3: David Dunham

From: David Dunham <David.Dunham@nationalhha.com>
Sent: Wednesday, July 13, 2022 3:55 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: HWY 1 Improvements Half Moon Bay

Attachments:
Property Survey 2022.pdf
Caltrans 1-14-20-1.jpg
Caltrans 1-14-20-2.jpg
Caltrans 1-14-20-3.jpg
Caltrans 12-7-19.jpg
Caltrans 12-7-19-2.jpg

Hello Mr. Seal,

I-3-1

My family and I live at 911 Cabrillo HWY North in Half Moon Bay which is East of HWY 1. I am aware of the improvement project, and as I live on HWY 1, I have questions about certain items.

1. What about the culvert which runs in front of our home adjacent to HWY 1? - These culverts capture rainwater runoff from the highway and are collected for final disposition via the spillway near Kehoe Blvd.
2. Will the drain outlet be improved better, which goes under Grandview Blvd?
3. Who will address the drain from Grandview Blvd heading north to the Kehoe bypass?

We have lived here since September 2019. We flooded our first rain season due to a lack of maintenance (CSR779188 & CSR780735) of the drain that lies in front of our property and our neighbors to the north at the corner of Grandview Blvd. I maintain these culverts and drains year round and especially during rainy days. When there is no attention spent, we all flood. This also means spending some of my money to keep the neighborhood from flooding, as the gophers are very busy replacing the dirt after I dig it out.

If it weren't for Amjad Naseer, District Branch Chief, South Region, District 4, our problems would have only been exacerbated. He went out of his way for our community.

I have attached our property survey from this year for your reference. I have also attached other pictures for a better description.

My relationship with Caltrans is strained through inept leadership and complacency.

We will be attending the meeting on July 21 from 1800-1930, and I hope there are some answers to my concerns. Feel free to contact me.

David Dunham, RN, MS, GSP, ASHM

National Home Health/Hospice Occupational Safety and Health Officer

Incident Commander

2nd Year Resident - Ph.D. Emergency Management

650-223-3371

HAM Radio K1ADD

Response to Comment Letter I-3: David Dunham

I-3-1. Thank you for providing this comment. The Project proposes to repair the existing drainage culvert that runs under SR 1 at approximately post mile 29.69, near the address included in this comment. The location for this repair was considered in the Draft Environmental Document and is shown in the map figure included with the Draft Environmental Document and Final Environmental Document as Appendix A, on page 6 of 17 of that mapbook. Additional drainages near this location may be identified as needing repair during the final design of the Project. Such drainages would then be addressed by the Project.

Comment Letter I-4: Claudia Marshall

From: Claudia Marshall <marshall94019@gmail.com>
Sent: Wednesday, July 13, 2022 6:50 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: Highway 1 question

EXTERNAL EMAIL. Links/attachments may not be safe.

I-4-1

Does DOT have long or short term plans to create roundabouts at all the major intersections from Capistrano South to Miramontes?
If so, when, and which streets?
Thank you,
Claudia Marshall
Half Moon Bay resident.

Response to Comment Letter I-4: Claudia Marshall

I-4-1. The Project does not propose construction of roundabouts. Additionally, there are no immediately programmed projects to implement roundabouts within those described limits. However, Caltrans evaluates roundabout alternatives for intersection improvement projects as part of its preliminary engineering process.

Comment Letter I-5: Eileen Ovrahim

From: Eileen Ovrahim <eileen.ovrahim@gmail.com>
Sent: Thursday, July 14, 2022 11:26 AM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: HWY 92 - Closures

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi John, I received the public meeting for the 7/21 call....that's where I've seen your name and email.

Are you the right person to speak to about Hwy 92?

I live in HMB but work in San Jose and a few days in SF...when 92 is closed, there is no way of knowing it is closed until you're right in the middle of it all. depending on where you are on 92, you may not be able to circle and get back to 280 for alternative ways of getting home.

I-5-1

I've signed up for Co. of San Mateo notifications, it's hit or miss
I call CHP and they normally say "sorry no updates at this time"
I call the Sheriff - the same message...

Is there a way we as coastal residents, citizens and taxpayers can work with CalTran and other key stakeholders to implement a viable solution?

Thank you for your time.

Eileen Ovrahim

Response to Comment Letter I-5: Eileen Ovrahim

I-5-1. The Build Alternative does not include notification systems on SR 1 or 92. As stated in Section 1.6 of the Environmental Document, a variant of the Build Alternative that included variable message signs placed at four locations on SR 1 and at one location on SR 92 was considered in the Project's conceptual design. However, these elements were removed from the Build Alternative based on feedback from local stakeholder groups and input from regulatory partners.

Comment Letter I-6: Robert Sweetow

From: Robert Sweetow <rsweetow@gmail.com>
Sent: Friday, July 15, 2022 7:00 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: St rte 1.multi-asset project

EXTERNAL EMAIL. Links/attachments may not be safe.

Dear Mr. Seal,

I-6-1

I am elated to learn about the roadway rehab project referenced above. I do have one question, however, perhaps for the public hearing. That question is, why no crosswalk lanes at Medio Ave. on Hwy. 1? That is a very busy intersection for residents of East Miramar.

Thank you,
Robert Sweetow
415-794-1775

Response to Comment Letter I-6: Robert Sweetow

I-6-1. Thank you for your suggestion. Although the intersection of SR 1 and Medio Avenue was not identified as a striped crosswalk location for this Project, it may be considered during the final design phase. Additionally, it could be striped by a future Project.

Comment Letter I-7: Sylvia Teng

From: Sylvia Teng <steng@sonic.net>
Sent: Sunday, July 17, 2022 5:39 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>; Jekas@hmbcity.com; BJett@hmbcity.com
Subject: Route 1 Rehbilitation

EXTERNAL EMAIL. Links/attachments may not be safe.

Mr. John Seal, Caltrans District 4
Mr. David Gorn, Chair of Half Moon Bay Planning Commission

Dear Sirs,

I have lived in Half Moon Bay for over 21 years and I drive Route 1 every day.
The traffic congestion has grown to the point where the danger and inconvenience has diminished the quality of life here.

I-7-1

I am asking that Caltrans and the City of Half Moon Bay consider i**nstalling stop lights and/or traffic circles on HWY1**.
In particular the stretch of road left out of planning projects to date but possibly the worst congestion and most dangerous turns on/off the highway - **at Roosevelt Rd. & Mirada Rd.**

Looking forward to attending the upcoming online public meeting and hearing your response.

Best regards,

Sylvia

****

sylvia teng
650-743-0435

steng@sonic.net

Response to Comment Letter I-7: Sylvia Teng

I-7-1. Thank you for your comment. This roadway rehabilitation Project is intended to extend the lifespan of existing roadway facilities. However, this Project will also implement traffic operation system elements that will monitor traffic and collect important data. These data will allow Caltrans to pinpoint areas where congestion solutions can be implemented, and to inform future planning decisions and projects in San Mateo County.

The installation of new traffic lights and traffic circles are not included in the scope of this multi-asset maintenance Project.

Comment Letter I-8: Dan Kennedy

From: Dan Kennedy <tweak.monkey@gmail.com>
Sent: Thursday, July 21, 2022 9:24 AM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: Re: Moss Beach / highway 1

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi John
Apologies if I'm sending this to the wrong person and I know there's a meeting on this tonight...

But am I interpreting this document correctly where it says a "Class II" (paint on the pavement) will be used as bike infrastructure, within a FEW FEET of cars driving 55+ MPH on highway 1 near the airport?

I-8-1

I guess there was no option for a true buffer/path here, despite this vast space, or a class 1 / class 4 lane on Airport Street?

If so... very disappointing - sadly I don't think any new people will ride their bikes on this corridor if only a painted icon or line is there to tell the cars not to kill them. There needs to be a proper buffer or some level of safety increase for this to be much of any use. I guess we do live in the United States after all :(

-Dan

Response to Comment Letter I-8: Dan Kennedy

I-8-1. Class II bicycle lanes with striped buffers would be created on SR 1 in the Project area. However, Caltrans is also investigating the possibility of a Class I facility on the western side of Kelly Avenue up to the SR 1 Pilarcitos Creek Bridge. Additionally, as noted in Section 1.4.9.1 of the Draft Environmental Document, Caltrans is coordinating with local planners to support initiatives such as Connect the Coastside, which includes a multimodal path parallel to SR 1.

Comment Letter I-9: Paul Gater

From: Paul Gater <prgater@gmail.com>
Sent: Saturday, July 23, 2022 10:29 AM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: Hwy 1 San Mateo Rehabilitation Project - Questions and Comments

EXTERNAL EMAIL. Links/attachments may not be safe.

Dear John,

I attended the webinar on Thursday evening about the plans to rehabilitate Highway 1 on the Coastside in San Mateo County. I asked a few questions that were answered during the webinar but want to repeat them for the public record.

I-9-1

1) How were the project boundaries chosen? Why does the project not extend further south than Wavecrest and/or further north than Marine Blvd in Moss Beach? There are many places beyond the project boundaries where the road surface and shoulders are in poor state and should be repaired.

I-9-2

2) How will the project be co-ordinated with the work planned to widen Highway 1 between Main St and Grandview in Half Moon Bay? I understand this work is now expected to start in 2023.

I-9-3

3) How will the project be co-ordinated with the plan to construct a multi-use bicycle - pedestrian path on the east side of Highway 1 between Highway 1 and Grandview in Half Moon Bay? This is part of the Highway 1 widening project.

I-9-4

4) How is the project being integrated with the Half Moon Bay Bicycle Pedestrian Master Plan which includes installing a bike lane on Main St between 92 and Highway 1?

I-9-5

5) The section of Highway 1 at 'Surfer's Beach' is very close to the ocean and likely to erode rapidly in the next few years. There's a multi-use trail between the highway and ocean at this location. What approach will the project take to minimize the impact of erosion without getting into expensive solutions? How aware is the team of discussions that might lead to relocation of the highway to the east? I'm concerned here to make sure Caltrans talks to itself and comes up with a long-term strategy for preserving Highway 1 in this part of the coast.

I-9-6

6) What is the reason for installing monitors and cameras at Seymour St (south of HMB) rather than at the newly-constructed intersection of Main St and Highway 1 south of town? It seems to me this is a more 'modern' intersection and traffic flow data for both traffic turning onto Main St and continuing north on Highway 1 may be informative?

I have not had time to read the draft report in full so will send any further comments / questions before the August 8th deadline.

Best wishes

Paul Gater
641 Marseille Way, Half Moon Bay

--
Cell: 650 636 6567
prgater@gmail.com

Response to Comment Letter I-9: Paul Gater

I-9-1. Caltrans projects are programmed with specific funds. The programming capacity/ limits are based on a projection of revenue expected to be available at specific times in the future and are approved by the California Transportation Commission (CTC). Projects and limits are identified on a 10-year highway repair program.

I-9-2. This comment is referring to Half Moon Bay's Highway 1 Traffic Reduction and Safety Improvement Project, which proposes multiple improvements to SR 1. These improvements include creating merge/turn lanes and widening the "pinch point" just north of Main Street to reduce congestion.

The Draft Environmental Document for the SR 1 Multi-Asset Roadway Rehabilitation Project includes avoidance and minimization measure TRANS-01: Development of a Transportation Management Plan. This will include coordination with San Mateo County, the City of Half Moon Bay, and any other applicable local jurisdictions for notification of closures and detours during construction.

I-9-3. As stated in Section 1.4.9.1 of the Draft Environmental Document, Caltrans will coordinate with San Mateo County to complete the medium- to long-term improvements identified in the Connect the Coastside Plan. This includes the proposed multimodal trail adjacent to SR 1.

I-9-4. In accordance with Avoidance and Minimization Measure TRANS-01, Caltrans will develop a Project-specific transportation management plan, which will include coordination with San Mateo County, the City of Half Moon Bay, and any other local jurisdictions for notification of closures and detours. Additionally, the new roadway pavement proposed by the Project would complement future bicycle projects by improving the roadway surface for all modes of transportation.

I-9-5. As part of this environmental assessment, the California Ocean Protection Council sea-level rise estimate of 6.9 feet above current conditions by 2100 was used in conjunction with two separate sea-level rise models. Caltrans notes in the Draft Environmental Document that Surfer's Beach adjacent to SR 1 in the community of El Granada is vulnerable to erosion and wave run up at locations under the sea-level rise scenarios examined for this analysis. The projected sea-level rise scenario to the end of the century would extend beyond the service life of the proposed pavement work at this location.

Sea-level rise adaptation in this area will require extensive shoreline protection measures that are outside the scope of this Project. However, Caltrans expects to coordinate with stakeholder groups to identify long-term solutions to address sea-level rise at this and other locations.

I-9-6. The locations of the proposed TOS elements were selected based on known traffic patterns within the Project limits, and site suitability.

Comment Letter I-10: Carol Slater

From: Carol Slater <susiesunday47@gmail.com>
Sent: Sunday, July 31, 2022 2:41 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Cc: David Slater <davidslater34@gmail.com>
Subject: S R 1 multi-asset roadway rehab project

EXTERNAL EMAIL. Links/attachments may not be safe.

hi mr. seal,

I-10-1

i have reviewed the website for subject project and can see the points on the map that show the drainage system improvement locations. is one of the locations where denniston creek flows from east to west under hwy 1? if so, will the vegetation in denniston creek on the east side of hwy 1 be cleaned out? the creek is heavily silted at that point.

thank you.

carol slater
resident of princeton-by-the-sea subdivision (formerly known as clipper ridge)
650-274-1263

Response to Comment Letter I-10: Carol Slater

I-10-1. The existing culvert under SR 1 at Denniston's Creek (approximately at post mile 33.36) is not proposed for repair as part of this Project. Replacement of the existing guard rails on the eastern and western sides of SR 1 would require trimming vegetation for access during construction. Caltrans would not trim or remove vegetation outside of the minimum amount necessary for construction access. No in-creek work is proposed at Denniston Creek for this Project.

Comment Letter I-11: James Bursick

From: JAMES BURSICK <jamesbursick@comcast.net>
Sent: Friday, August 5, 2022 3:01 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: State Route 1 Multi-Asset Roadway Rehabilitation Project.

Dear Mr. Seal,

Thank you for the offer to comment on the proposed State Route 1 Multi-Asset Roadway Rehabilitation Project.

I-11-1

While resurfacing Highway 1 along the proposed route is certainly needed, the project does not appear to address the longstanding traffic problems that face the Coastside. There is considerable congestion during weekday commute hours [0700h-0830h; and 1600h-1830h] as well as school closing hours [1330h-1600h]. Weekend congestion is worse. The proposal suggests that the highway rehabilitation project will be "a 20-year flexible rehabilitation strategy". Does this mean the life of the highway pavement improvements will last 20 years and that once completed nothing will be done until 2046 at the earliest?

I-11-2

I believe that the proposed project route should be amended to make Highway 1 a two-lane each-way roadway between the proposed Postmiles, thus addressing the various bottlenecks that occur when the highway goes from two lanes to one, for example, northbound highway 1 at Terrace Avenue. A double-lane highway would accommodate commute traffic much better as the population commute density diminishes at the northern and southernmost points on the project route. Of course, this suggestion is probably not feasible, but synchronization of traffic lights at Highway 1 and North Main Street; Highway 1 and Highway 92; and Highway 92 and Main Street during commute hours to manage traffic flow and ease the congestion that occurs each day. Place a No Turn on Red at North Main Street onto North Highway 1 to stop the traffic congestion that occurs at the point during the evening commute hours.

I-11-3

Crosswalks. Adding crosswalks between long stretches of Highway 1 between traffic lights is a good idea unless these are surface crosswalks with pedestrian signaling. Surface crosswalks will create traffic delays unless they are under the roadway or above the roadway on a pedestrian bridge. The worst congestion is at Surfers Beach, which permits parking on the eastern side of the highway. Off-highway parking should be prohibited between Capistrano Road and Coronado Street and a crosswalk to Surfers Beach between these two traffic light intersections should be under or over the highway.

I-11-4

Bike Lanes. Without widening Highway 1, this could present a problem. In the almost forty years I have lived here, bicycle traffic is almost non-existent save for a few racing enthusiasts and local citizens whose only means of transportation are on foot or by **bicycle.**

I-11-5

Traffic Monitoring. This is probably better than the old rubber rope traffic counters. However, we already know traffic is a major problem for our Coastside community. It is not clear what you expect to learn from this effort.

Sincerely,

James Bursick

Response to Comment Letter I-11: James Bursick

I-11-1. Thank you for your comment. The purpose of the Project is to preserve and extend the life of the roadway and associated elements, enhance pedestrian and bicycle access, and upgrade traffic system infrastructure. However, this does not preclude future projects that would directly address congestion. The traffic system infrastructure upgrades would include new traffic operation system elements. These will collect important data that Caltrans can use to identify transportation needs. Although the Project does not include direct congestion solutions, it will enable Caltrans to implement those solutions in future projects.

Regarding your last question, the 20-year flexible rehabilitation strategy represents the life cycle of pavement and other roadway facilities. It does not preclude other projects from taking place in the near future.

I-11-2. Please note that the scope of this environmental assessment is limited to the Build Alternative and No Build Alternative described in Section 1.5 of the Draft Environmental Document. This is primarily a roadway rehabilitation project. Any additional action, such as reconfiguring the roadway, would need to be evaluated as a separate project.

The addition of new lanes is typically associated with an increase in vehicle miles traveled (VMT). This would be considered a significant environmental impact, pursuant to CEQA Guidelines Section 15064.3, subdivision (b). It should also be noted that SR 1's rural and scenic character as a two-lane highway is protected by multiple plans, such as the San Mateo Local Coastal Plan.

I-11-3. Please note that potential impacts to vehicle travel times are outside the scope of this environmental assessment. The following transportation-related questions are evaluated for adherence to the California Environmental Quality Act (CEQA):

a) Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

b) Would the Project conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)?

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

d) Would the Project result in inadequate emergency access?

Such measures as level of service (LOS) were removed from the CEQA Guidelines in favor of evaluating increases to vehicle miles traveled (VMT), pursuant to CEQA Guidelines Section 15064.3, subdivision (b).

I-11-4. As stated in Section 2.2.17.1 of the Draft Environmental Document, the Project is being planned and designed to be constructed and operated to meet current Caltrans' Complete Streets policies, in accordance with Director's Policy 37. The goal is to provide improvements for all modes of transportation, to include access improvements for pedestrians and bicyclists.

I-11-5. As stated in Section 1.4.6 of the Draft Environmental Document, the proposed traffic operation system elements would be used to collect data on traffic flows and volumes. These data will enable Caltrans to pinpoint transportation needs and deficiencies, and will inform future planning decisions in San Mateo County.

Comment Letter I-12: Steve Terry

From: Steve Terry <terrysteve@comcast.net>
Sent: Friday, August 5, 2022 1:58 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: State Route 1 Multi-Asset Roadway Rehabilitation Project — (project ID 04-1800-0053).

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi John,

On the July 21 call-in, there was a question (in the Q&A portion) regarding organization of the many ToS components that are spread among multiple Caltrans projects, (e.g., the *State Route 1 Traffic Operational Systems Improvements Project* that's before the SMC Planning Commission right now).

I-12-1

In response to the question, I recall it was stated that there was some sort of consolidated or comprehensive traffic management plan for the Coastside and that that plan was available to the public.

Can you please reply to this mail with a link to that plan at your earliest convenience so that I can review it before the end of the comment period.
Also, please include this email as part of the public comment and include how to find that plan within your formal response.

Thank you.
Steve Terry
El Granada

Response to Comment Letter I-12: Steve Terry

I-12-1. This comment refers to a topic discussed during the July 21, 2022, public meeting for the Project. The question presented at the meeting was: “Why is it so confusing to follow your projects? You seem to be putting similar elements in different projects.” Caltrans responded that projects with similar elements are sometimes planned simultaneously or with overlapping timelines, due to funding cycles. Caltrans intends to do as much as they can with each project, to reduce redundancy.

The plan this comment is referring to may be the Caltrans District 4 Bicycle Plan, or the Caltrans 4 Bicycle Plan.

Bicycle Plan: https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-bike-plan

Pedestrian Plan: https://storymaps.arcgis.com/stories/9a25b6f7dcf146328663b62660a0b6f9

Alternatively, this comment may be referring to the Project-specific Transportation Management Plan. This is an avoidance and minimization measure proposed for the Project in Section 2.2.17.1 of the Draft Environmental Document, which will minimize construction-related delays and impacts on emergency vehicles and the traveling public. It will be prepared in accordance with Caltrans requirements and guidelines during the final design phase of the Project. Please refer to the aforementioned section of the Draft

Environmental Document for more information. A draft comprehensive traffic management plan is currently in-progress and is not available to the public at this time.

Comment Letter I-13: Steve Koron

From: Steve <stevekoron@gmail.com>
Sent: Tuesday, August 16, 2022 7:05:07 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: Road Project

EXTERNAL EMAIL. Links/attachments may not be safe.

I-13-1

Hello John, my name is Steve Koron, I I live in Miramar, Half Moon Bay. I've been told you were taking comments about the Cal Trans Project 04-1800-0053 along Highway 1. I would like to add my concern about the drainage tube that is used by the neighborhood to get safely across Highway 1. It would be great if the tubes could be kept open as it is by far the safest route for the kids and community to get across the busy road. I use it myself regularly to access quarry park trails. Thank you for taking the time to get community input on this project.

Steve Koron and family
70 San Pablo Ave. HMB
650-619-8034

Sent from my iPhone

Response to Comment Letter I-13: Steve Koron

I-13-1. Please see the response to Comment I-16-1. Drainage culverts are not safe for pedestrian use, particularly when water is present and especially during storm events. Caltrans understands the challenges to pedestrians and cyclists when crossing SR 1 at unsignalized intersections. However, Caltrans cannot support use of drainage facilities for pedestrians. Caltrans strongly implores the public to stay out of these drainage facilities and seek the safest available overland crossings for each person's needs. Thank you for bringing this to the Project's attention, Caltrans will examine what opportunities it has to inform the public on this safety risk during the final Project design phase.

Comment Letter I-14: Sally Benson

-----Original Message-----
From: Sally Benson <sally_benson@hotmail.com>
Sent: Wednesday, August 17, 2022 11:37 AM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Cc: Sally Benson <sally_benson@hotmail.com>
Subject: Highway 1 in Half Moon Bay

EXTERNAL EMAIL. Links/attachments may not be safe.

I-14-1

Hello, My name is Sally Benson. I see the highway 1 in Half Moon Bay will be worked on in the next few years. I would like to connect with you about an area that has had work done.
The Highway by the south end of Main and Wavecrest has some real problems. Pleas contact me and I will give you the details.. If you were to send someone to look at the area-it will be very obvious. Please let me know .
My email is. sally_benson@hotmail and my phone is. 650-787-6882. Thank you, Sally Benson

Response to Comment Letter I-14: Sally Benson

I-14-1. Thank you for your comment. Caltrans Public Information Officer Alejandro Lopez has reached out to you.

Comment Letter I-15: Anna-Maria Munoz

From: Anna-Maria <amunoz@gmail.com>
Sent: Tuesday, August 16, 2022 4:35 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: State Route 1 Multi-Asset Roadway Rehabilitation Project

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello John,

This is in reference to the San Mateo County project in Highway 1 in Half Moon Bay:
SAN MATEO COUNTY, CALIFORNIA 04-01-SM-PM 27.5/34.8
EA 04-0Q130 / Project ID 04-1800-0053

I-15-1 As a resident of Half Moon Bay, my family and I use one of the drainage pipes under Highway 1 (near Miramar Drive) to safely cross Highway 1 on a daily basis. I am hopeful that this project will either maintain this safe passage for pedestrians, or improve the current passage. We use the tunnel to take our son to school via bicycle, and we use it to cross into the east part of the neighborhood to exercise (hiking, mountain biking).

Let me know if you have questions.

Anna-Maria Munoz

Response to Comment Letter I-15: Anna-Maria Munoz

I-15-1. Please see the responses to Comments I-13-1 (above) and I-16-1 (below).

Comment Letter I-16: Mike Nielsen

-----Original Message-----
From: Mike Nielsen <mikenielsenhmb@gmail.com>
Sent: Wednesday, August 17, 2022 2:07 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: State Route 1 Multi-Asset Roadway Rehabilitation Project

EXTERNAL EMAIL. Links/attachments may not be safe.

I-16-1

Hi John - I understand that CalTrans is taking public feedback on the State Route 1 Multi-Asset Roadway Rehabilitation Project.

We live in Miramar West on Mirada Road, and the tunnels under highway 1 @ Miramar Drive are a lifeline to safely cross the highway to access both the county park as well as school for one of our children. Many of our friends do the same, as well as those on the east side who use them to access the beaches.

I hope you have an opportunity to review how these tunnels can be kept open and safe as part of rehabilitation project.

Thanks for your time,
Mike Nielsen

Response to Comment Letter I-16: Mike Nielsen

I-16-1. Caltrans is proposing to replace the existing headwall and two 20-foot-long reinforced concrete pipes from the headwall where SR 1 crosses Arroyo de en Medio Creek. This is the nearest culverted crossing to Miramar Drive on SR 1, and this response is provided with the understanding that these culverts are the tunnels referred to in this comment. These existing structures and the proposed maintenance repair are intended for water conveyance and are not appropriate for pedestrian use to cross under SR 1. Please see the response to Comment I-13-1. Please do not enter drainage culverts.

Comment Letter I-17: Jill Grant Rogers

From: Jill Grant <ambystomacaliforniense@gmail.com>
Sent: Wednesday, August 24, 2022 11:43 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: Re: comments on the Draft Initial Study with Proposed Negative Declaration for the State Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130)

Oops! Forgot to attach the photos appendix.

Stay healthy and happy!

Jill Grant Rogers

On Wed, Aug 24, 2022 at 11:42 PM Jill Grant <ambystomacaliforniense@gmail.com> wrote:

> To Caltrans District 4,
>
> **Please address the following comments on the Draft Initial Study with Proposed Negative Declaration for the State Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130)**
>
> ---
>
> **1. Roadway Rehabilitation, (Section 1.4.2)**
>
> - Using the standard lane width of 12 feet and a shoulder width of four feet, show design details and measurements of project elements (additional lanes, medians, concrete bus pads, parking, formal bicycle lanes and guardrails). What is the total permanent impact to currently unpaved areas? What is the total temporary impact including staging areas?
> - Show design details of all proposed concrete work on the SR1 segments as many of these locations are in unincorporated, rural areas where the aesthetics of new infrastructure are an important issue for residents of this community.

I-17-1

I-17-1 Cont.

Will all concrete work be colored to match the surrounding environment? If not, what will be the final color? Please note that bright white concrete creates an adverse visual and aesthetic impact in rural settings.

2. Guardrail Replacement, (Section 1.4.3)

- Will the proposed Midwest Guardrail System require installation of a concrete surround? The MCC feels concrete should not be used except where structurally essential to avoid negatively impacting scenic views and to reduce impervious surfaces common in Cities. Figure 1-2 of the Draft Neg Dec depicts approximately 20 guardrail locations in the project, in approximately 5 miles of roadway, however the Midwest Guardrail Systems installed in Pacifica on SR-1 (Photos 1-2) include a large swath of concrete paving and are decidedly urban in character. This type of guardrail is inappropriate for the Midcoast scenic corridor and will significantly undermine the aesthetic feel of this rural setting. There are concerns that the proposed project would result in an adverse impact on coastside Aesthetics by upgrading to a Midwest Guardrail System. The Caltrans Negative Declaration states that these guardrails may result in an urban/industrial look in the rural/coastal scenic corridor. What are the materials of the proposed Midwest Guardrail System? Describe the materials (Photo 3) to be used at each location - treated wood, metal, or cable? Wood or cable would blend better with the rural setting. Metal will not blend. Figure 1-2 of the Draft Negative Declaration depicts approximately 20 guardrail locations in the project, in approximately 5 miles of roadway, however, the type of Midwest Guardrail System recently installed in Pacifica on SR-1 include a large swath of concrete paving and are decidedly urban in character. This type of guardrail is inappropriate for the Midcoast scenic corridor and will significantly undermine the aesthetic feel of this rural setting.

I-17-2

- The Draft Negative Declaration mentions guardrail 'crash cushions'. On urban highways, these cushions are large and unsightly. Please provide photos and specifications so we can further assess the aesthetic impact of this element.
- The Draft Negative Declaration does not discuss the energy requirements associated with concrete use under guardrails verses using native coastal soil. Manufacture and use of concrete is a major contributor to planetary warming. Will Caltrans commit to a non-concrete installation for guardrails thus reducing use of a limited global resource (sand)? If not, estimate the quantity of concrete required to complete all project elements and discuss the adverse impact on Global Warming and on sustainability that would result from the use of concrete, which adds to coastal erosion, using the best available data. Does the need outweigh conservation of this resource as there is a current worldwide shortage of sand?
- Will Caltrans match the color of the concrete to allow for a better blend with the natural environment?
- Section 1.4.3 states "All guardrails on SR-1 in project area would be removed and replaced ..." However, an assessment on the condition of the existing guardrails is absent from the Draft Negative Declaration. Many guardrails appear to be in sufficiently good condition, albeit not up to current standards. Please provide a detailed assessment of existing structural condition for each guardrail including the

I-17-2 Cont.

purpose and need for each location as many side streets have been altered (Segment 4-Capistrano Road) thus the existing guardrails serve no protective purpose.

3. Conduits, and Traffic Operation System Elements Installation, (Section 1.4.6)

I-17-3

- Explain the purpose and need for directional and dome cameras. It is not sufficient to assert that these project elements are needed simply because they don't currently exist in the proposed project area. The MCC recommends the removal of the traffic cameras from the Draft Negative Declaration. Prioritize installation of inductive loop sensors at Capistrano, Coronado, Frenchman's Creek, and SR-92 as the public (City of Half Moon Bay and communities of the Midcoast) has already expressed concerns and objections to cameras during the 2021 public sessions for the proposed Multi-Asset project (Caltrans Project 2K880 State Route 1 Traffic Operational Systems Improvements Project Negative Declaration) where VMS were then eliminated.
- Explain why embedded roadway sensors (inductive loop detectors) cannot fulfill the purpose and need to collect data on traffic since their purpose is to detect motor vehicles as they drive over the detectors wire loop. Using only embedded sensors in the roadway to collect data will minimize aesthetic intrusion in scenic corridors. Additionally, a comprehensive plan for the Intelligent Transportation System (ITS) project is not due to be completed until 2023, so the transition from TOSI to ITS is not yet ready for public review.

4. Drainage Inlet, Culvert, and Dike Replacement, (Section 1.4.7)

I-17-4

- Will repairs to the Medio Creek culvert prevent or reduce its continued use by pedestrians and bicyclists? This segment at SR-1 Medio Creek (Photos 4 and 5) is extremely dangerous for walkers and bicyclists and the Medio Creek culvert has been used as a safe pedestrian method to cross under SR-1 for decades. This is a highly valued asset to our community as few safe crosswalks occur on SR-1.
- What steps will Caltrans take to remove the blockage threats posed by tall trees adjacent to SR-1 on this project's stretch of roadway, e.g., by collaboration with the County and/or adjacent property owners? Mature eucalyptus trees on property adjacent the Caltrans right of way are a threat to public safety and transportation because of their height (~100') which is sufficient to block the adjacent SR-1 if and when they fall. Conducting construction work near these existing eucalyptus trees (Photo 4) especially at Frenchman's Creek and Medio Creek, pose a safety risk. Ground disturbance including excavation (Photo 4), staging of equipment and construction materials, and vibrations, can cause large limbs to fall or even unearth the entire tree which will block emergency responders and evacuation routes during an emergency event such as an earthquake, wildfire, or tsunami. These trees are particularly vulnerable to impacts from construction due to their shallow root systems and extreme flammability. Consideration of those risks and the effect on SR-1 for this and other projects should be discussed between stakeholders in subsequent venues.
- Reassess the effects of climate change-related risks based on the most recent science and local data. It appears that Caltrans' assessments of SLR risks are lower than other expert sources. SR-1 at Surfer's Beach already experiences minor flooding during King Tides, with several feet of sea level rise possible by 2050. Furthermore, natural disaster risks to Moss Beach are documented in this MWSD analysis intended for

I-17-4 Cont.

FEMA: https://mwsd.montara.org/assets/docs/board/collateral/243/New_Business_2.pdf

-

I-17-5

There are many useful aspects to the proposed project but there are details and information missing making it difficult for the public to fully review the impacts to our coastal community. Due to interest in this topic and the incomplete notification to the public of the commencement of a 30-day review period, can Caltrans extend the review period for an additional 15 days? Additionally, the Initial Study for this Negative declaration has an Appendix (C) listing numerous Avoidance and Mitigation Measures so shouldn't this CEQA document be considered a "Mitigated Negative Declaration"?

Please record my written comments and photo appendix I look forward to your carefully considered responses and document revisions based on the best available scientific information.

Sincerely,

Jill Grant

jillmgrant@gmail.com
415-940-3392

PHOTOS OF EXISTING CONDITIONS

Photo 1: Pacifica Midwest Guardrail System on SR-1 with concrete surround.

.

Photo 2: Pacifica Midwest Guardrail System on SR-1 with concrete surround.

Midwest Guardrail System - Standard Railing Sections	
Midwest Guardrail System - Standard Railing Section (Wood Post with Wood Block)	A77L1
Midwest Guardrail System - Standard Railing Section (Steel Post with Notched Wood or Notched Recycled Plastic Block)	A77L2
Metal Beam Guard railing - Reconstruct Installation	A77L3
Midwest Guardrail System - Standard Hardware	A77M1
Midwest Guardrail System - Wood Post and Wood Block Details	A77N1

Photo 3: Examples of different types of materials used to construct the Midwest Guardrail System.

Photo 4: Examples of current construction at Medio Creek where excavation occurred directly adjacent a large eucalyptus impacting the shallow root system.

Photo 5: Existing guardrail at Capistrano Rd. (north) composed of metal and treated wood adjacent a riparian corridor. This guardrail serves no purpose and was installed prior to the addition of a southbound off-ramp roadway built for vehicles to safely round the corner at higher speeds as they enter into the Harbor.

Photo 6: SR-1 at Medio Creek is very dangerous to cross so the culvert underneath the roadway has been used for decades by residents of Miramar.

Photo 7: SR-1 at Medio needs sufficient work to upgrade current conditions. Describe this work and materials proposed in detail.

Response to Comment Letter I-17: Jill Grant Rogers

I-17-1. This comment refers to specific design details and engineering layouts for various Project elements. Please note that, at this stage, these documents are not yet available. The final design would be determined during the Plans, Specifications, and Estimates (PS&E) stage of the Project.

The Build Alternative does not propose to add any through lanes to SR 1. This is primarily a maintenance project, which would rehabilitate roadway pavement and traffic systems (e.g., guard rails, crash cushions, and drainage). Construction staging would take place within the existing Caltrans right-of-way, and the Project would have a disturbed soil area of less than 1 acre overall.

Context-sensitive designs would be used for all Project elements. Concrete used for the Project (e.g., for roadway rehabilitation and ADA curb ramps) would generally match existing conditions.

I-17-2. Please see the response to Comment I-18-1.

I-17-3. The proposed cameras would allow Caltrans to monitor traffic volumes and patterns live, and would inform future planning decisions along the coast. Loop

detectors installed below the roadway surface would not fulfil the same purpose, because Caltrans would not be able to monitor live conditions. Use of loop detectors would substantially limit data fidelity along this corridor and would inhibit informed traffic planning decisions in the future.

I-17-4. Regarding the use of drainage culverts for pedestrian passage, please see the responses to Comments I-13-1 and I-16-1. Drainage culverts are not intended for pedestrian passage and are not a safe use of this facility. Caltrans does not condone, support, or approve of pedestrian passage through its drainage systems. Please do not enter drainage culverts.

I-17-5. Please see the response to Comment I-20-1 regarding public notification and the review period. Caltrans has accepted comments submitted after the close of comment date for inclusion in the final Initial Study document.

Comment Letter I-18: Dan Haggerty

August 25, 2022

Via email-john.seal@dot.ca.gov
Caltrans, District 4
Office of Environmental Analysis

Subject: Comments on Draft Initial Study of SR1 Multi-Asset Road Rehabilitation Project (EA 04-0Q130)

To Whom It May Concern:

1) Midwest Guardrail System (Sec. 1.4.3)

Environmental impacts of concrete use under guardrails.
- Alters natural soil hydrology. Super weeds can be seen on SR 92 where concrete was used.
- Increases surface runoff.
- Global shortage of sand needed for concrete(see links at bottom of letter). Over mining of sand impacts the natural flow of sand to replenish our beaches and protect against coastal erosion. Use of concrete should be reserved for only when it is absolutely necessary.
- There is a significant Co2 impact with concrete production and placement.

Esthetic impacts of Concrete under guardrails on the State Scenic Highway are real and not included in section 2.2.1.
- Prevents natural wildflower growth.
- Takes away from the country feel of the highway
- Sets precedent for an unnatural patchwork of concrete on side of our scenic highway.
- Essentially widens pavement of road unnecessarily.
- Slightly raised mounds under guardrails would allow for a more natural moisture runoff (alternative control) as functioning currently in many existing guardrail locations.

I-18-1

No unnecessary removal and replacement of guardrails in good repair.
- It is very likely that there would not be a significant difference in the strength of a newer guardrail compared to existing guardrails in good condition.
- We have been hearing time and time again that there are no funds available for Highway 1 projects that are in critical need (see Community input on past Highway 1 Safety and Mobility Studies). Do not waste tax dollar funds.

Crash Cushions. (Please provide drawings and explanations as to why they are better).
- No clear drawings have been submitted. We don't know what you have in mind here. From looking at regional examples in place, many crash cushions appear to be pointed into the direction of traffic. This puts them closer to the traffic lane, increasing the chance they will be hit and visual impact. It appears that the older method typically bends the guardrail away from the road and bury into surrounding soil.
-

Please respond to concerns I have raised above on Midwest guardrails.

2) Culverts (Sec. 1.4.7)

I-18-2

Medio Creek Culvert rebuild/repair.
Our community has used the SR-1 Medio Creek culvert as a safe pedestrian method to cross under SR-1 for decades. This is a highly valued asset to the families in our community. We

I-18-2 Cont.

want to be sure that any repairs to this culvert will not prevent or reduce its continued use by the community for this purpose.

Please acknowledge that this is a critical asset to the community today and no effort will be taken to rebuild in a way that will restrict it's use by our community for crossing under SR1.

3)TOS (Sec. 1.4.6)

I-18-3

Reasons I do not support a Wireless Detection System.

- No clear answers have been provided regarding the specifics of how this system would work.
- Exactly what would be acceptable to CalTrans should be known already and provided first by CalTrans.
- Certainly there are other CalTrans locations in California with similar systems that are currently in place and working.

Please provide more information on how TOS and WDS will function.

4) Complete Streets (Sec. 1.4.9)

I-18-4

Highway 1 crosswalk at the southern end of Coronado is not needed and if constructed would have a major impact to overall Highway 1 traffic and local flow considering the heavy automobile left turning to south bound Highway 1.

ADA implementations should be least obtrusive and match existing community standards of Grey color textile pads with colored concrete to match surrounding environment as best as possible. Not only our community, but many other communities have also taken these steps.

All concrete work should be colored to best match environment. No uncolored white concrete.

Has anyone from Caltrans visited this area on a busy weekend?

5) Pedestrian Underpasses

I-18-5

The whole project description should be expanded beyond build and no-build.

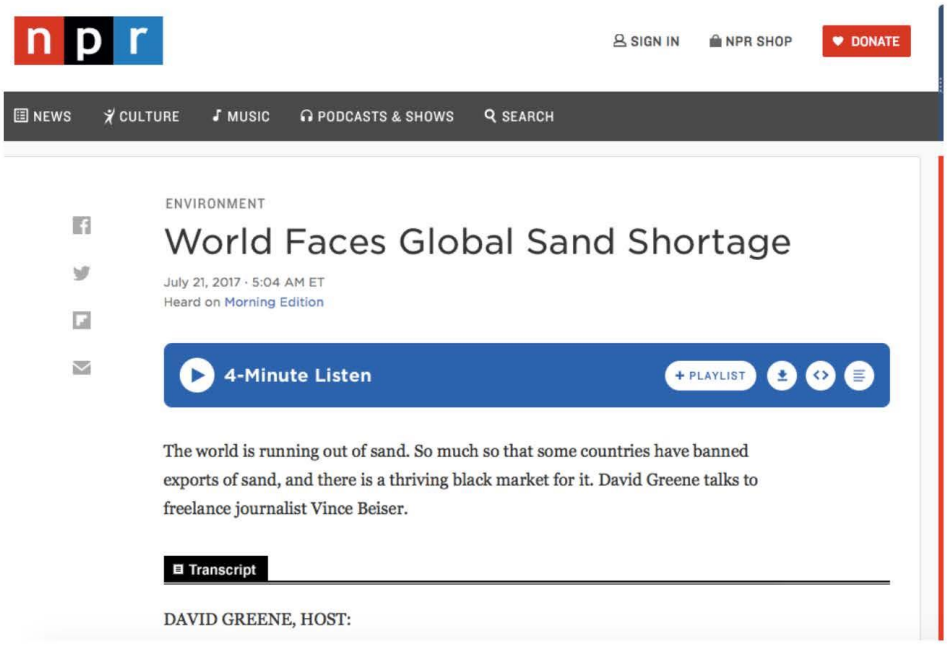
- Example: Feasibility Studies on Pedestrian Underpass at Gray Whale Cove and other locations. Also, Pedestrian medians with offset crosswalks (avoiding traffic stops in both directions at the same time). These are ideas that would meet your stated purpose of "improving roadway safety and enhancing pedestrian/bicycle access", and should be part of the "Complete Streets" concept. In addition to the California Coastal Act Section 30210.
- Frenchman's Creek is in desperate need for a pedestrian underpass. I have witnessed repeated pedestrians crossings here during peak traffic times. The 30 second red light over and over can quickly add heavily to the traffic backups in both directions. A pedestrian underpass here would solve this problem.

Please acknowledge that underpasses will provide a safe crossing without impacting traffic flow. I know CalTrans has installed pedestrian underpasses elsewhere in California for this same reason.

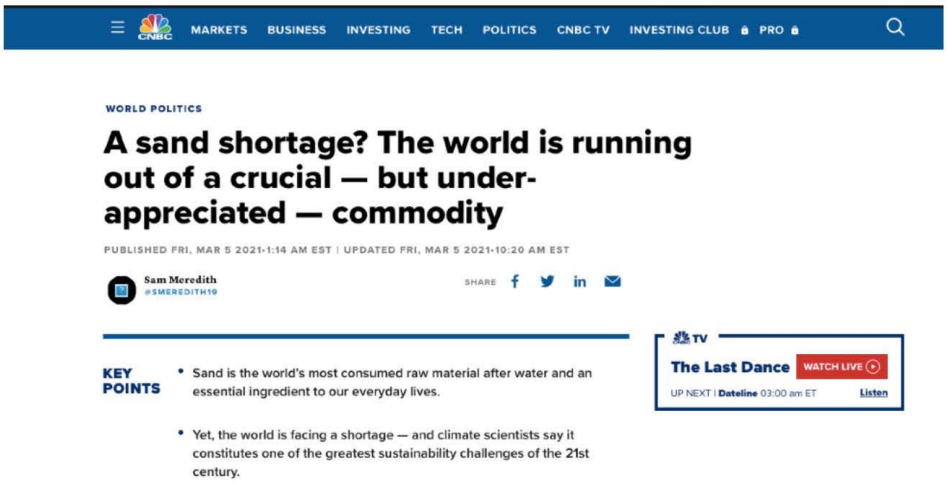
Attached below:
Links to writings on Global Sand Shortage
(Please review and explain how CalTrans is being responsible with Concrete use for Midwest Guardrails).

Thank you,

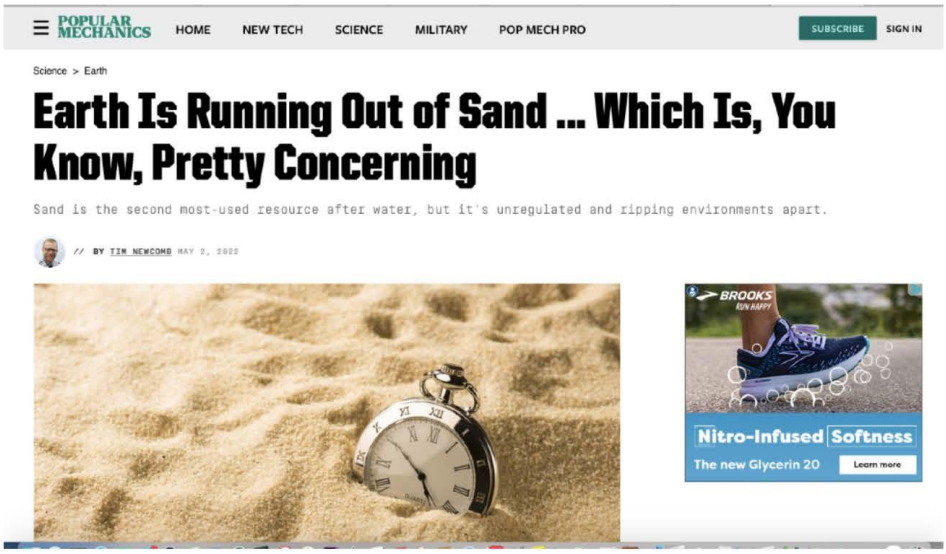
Dan Haggerty
El Granada



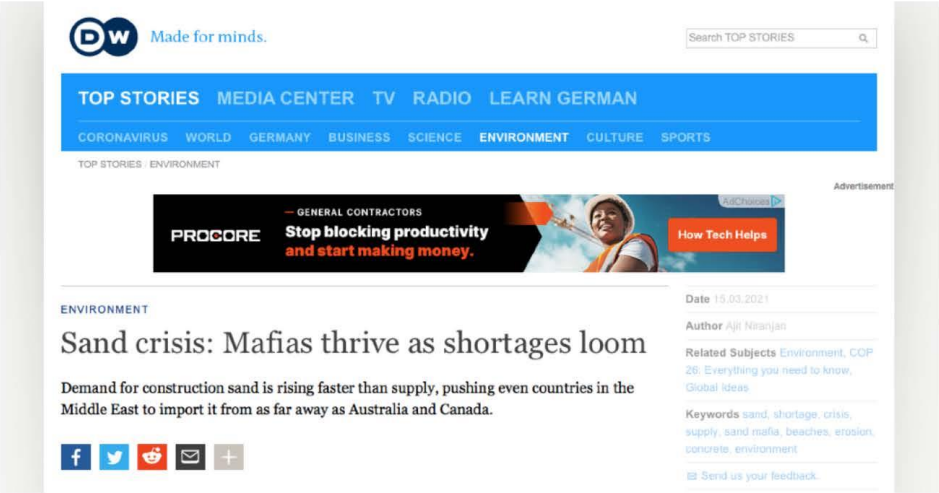
https://www.npr.org/2017/07/21/538472671/world-faces-global-sand-shortage



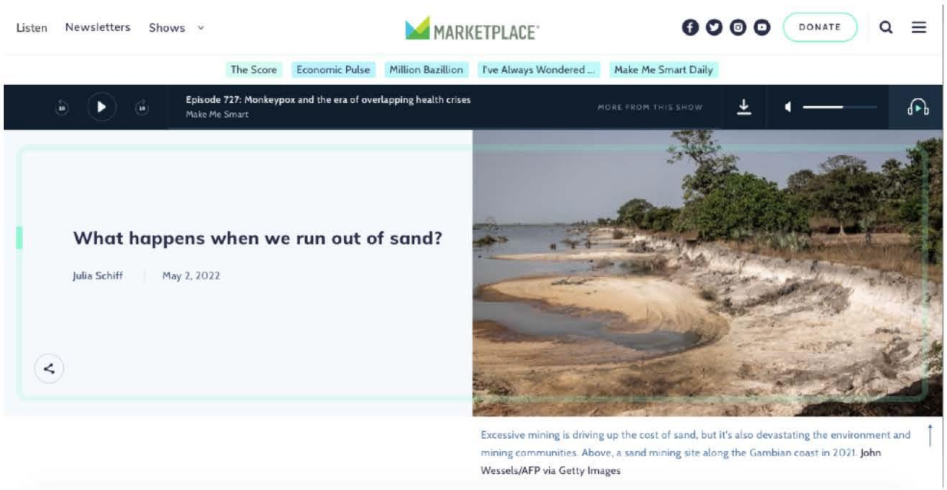
https://www.cnbc.com/2021/03/05/sand-shortage-the-world-is-running-out-of-a-crucial-commodity.html



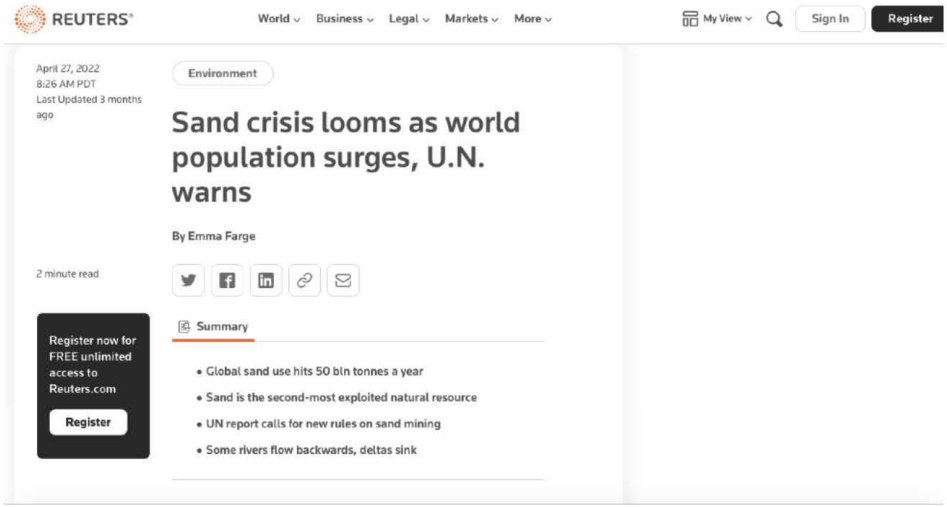
https://www.popularmechanics.com/science/environment/a39880899/earth-is-running-out-of-sand/



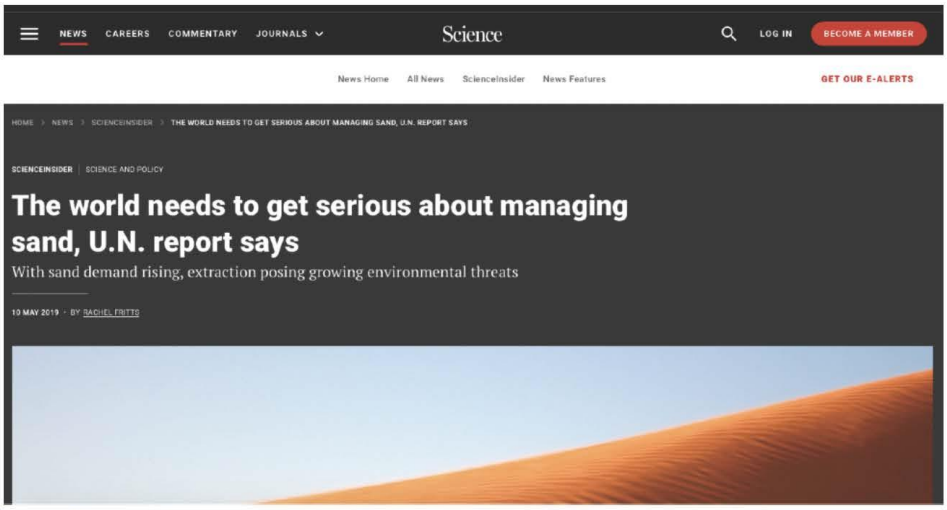
https://www.dw.com/en/sand-crisis-shortage-supply-mafia/a-56714226



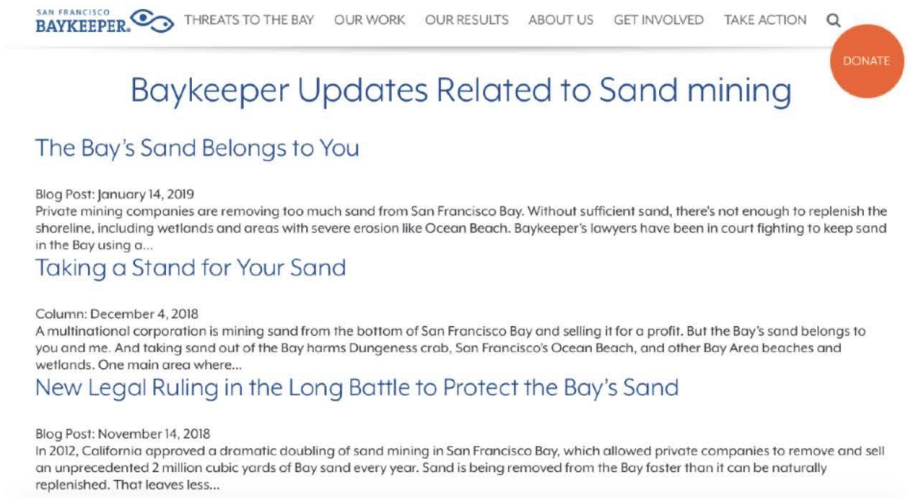
https://www.marketplace.org/2022/05/02/what-happens-when-we-run-out-of-sand/



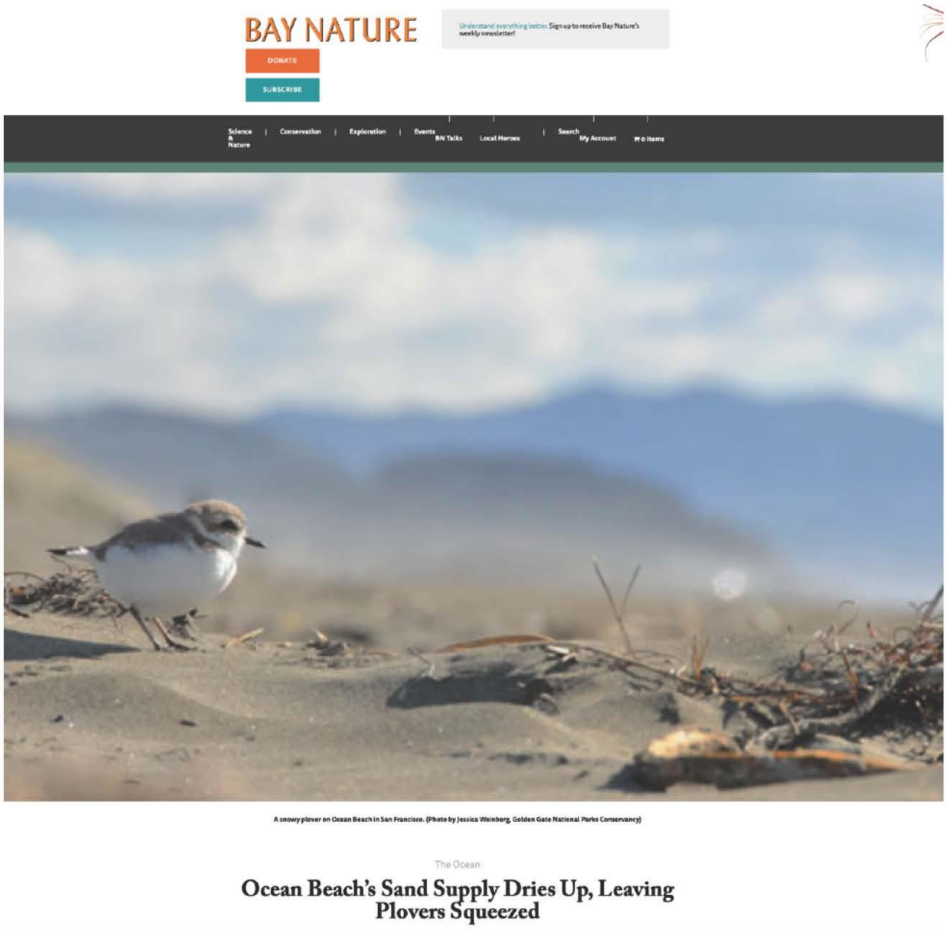
https://www.reuters.com/business/environment/sand-crisis-looms-world-population-surges-un-warns-2022-04-26/



https://www.science.org/content/article/world-needs-get-serious-about-managing-sand-says-un-report



https://baykeeper.org/category/sand-mining



https://baynature.org/article/ocean-beachs-sand-supply-dries-leaving-plovers-stranded/

Response to Comment Letter I-18: Dan Haggerty

I-18-1. Regarding the MGS, please see the responses to Comments I-22-1, I-22-3, and I-22-3. The final Project design will comply with Caltrans Standard Plans and Policies for Midwest Guardrail Systems and Caltrans Authorized Materials List for crash cushions.

Regarding the market-based concerns about the availability of sand, the proposed Project is subject to market supply and demands for all construction materials.

Regarding CO_2 emissions, Section 2.2, under Air Quality, discusses the Project's potential impacts on air quality; and Section 2.3 further discusses climate change and greenhouse gas.

Aesthetic impacts are considered in Section 2.2, under Aesthetics. The replacement of metal beam guardrail with MGS would have less-than-significant visual impacts. The proposed MGS would be similar in appearance to existing metal beam guardrail (MGBR) and would have the advantage of meeting current Caltrans' specifications.

Section 2.2, under Hydrology and Water Quality, considers the Project's potential impacts from new impervious surfaces. The Project would have no impact because it would not substantially alter the existing drainage pattern of the site or area and would not result in a substantial area of new impervious surfaces.

Regarding Project plans, Appendix A of the Initial Study was included for circulation and shows proposed locations for the work considered. The Project design is currently at a conceptual level and will be refined during the final design and permitting phase of the Project. Caltrans' current standard plans are publicly available for download online at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications for anyone who wishes to examine them.

I-18-2. Please see the responses to Comments I-13-1 and I-16-1. Drainage culverts are not intended for pedestrian passage and are not a safe use of this facility. Caltrans does not condone, support, or approve of pedestrian passage through its drainage systems. Please do not enter drainage culverts.

I-18-3. Thank you for your comments. Your comment is related to the WDS and TOS proposed by the Project. Section 1.4.6, Conduits, and Traffic Operations Systems, outlines the needs for these elements. Data collected by these systems will be sent directly to Caltrans District 4 to analyze traffic conditions and inform future planning decisions. Existing traffic data collection systems on other roadways may be useful in comparing traffic data, but would not be directly informative of traffic conditions on SR 1 in the Project area.

Please see the response to Comment R-4-4 regarding the specific functions of the WDS. There are approximately 40,000 traffic detectors of varying technologies, including types of WDS, installed on the California's state highways. All of these provide

valuable insights to Caltrans, cities, and the public. None of the traffic detectors installed by Caltrans throughout the state collect or store PII, and this Project complies with that practice. The vendor and type of WDS that will be installed on the proposed Project will be determined during the design phase to ensure that the most reliable, effective, and modern technology is implemented.

I-18-4. The crosswalk proposed at Coronado Street would connect an existing sidewalk that serves Wilkinson School (a K through 8th grade school) in the Community of El Grenada. An additional crosswalk at this location would provide a more direct route and reduce the number of crossings for the public. Reducing the number of crossings required at this intersection would improve pedestrian safety and is included in the Project to meet Caltrans' Complete Streets guidance.

Regarding the visual character of ADA project components, it is atypical to incorporate colored concrete or out-of-standard detectable warning pads for curb cuts. Additionally, detectable warning surfaces require a strong contrast to assist individuals with impaired eyesight.

I-18-5. Thank you for these comments. Regarding Gray Whale Cove, that location is outside of the Project area considered in the Initial Study. Caltrans, San Mateo County, and the Metropolitan Transportation Commission proposed the Gray Whale Cove Pedestrian Crossing Project and filed its Notice of Completion in August 2019. The CEQA filing for that Project is available online at: https://ceqanet.opr.ca.gov/2019 089080/2.

Regarding Frenchman's Creek, the primary purpose of the Project's proposed Build Alternative is to provide necessary maintenance to existing infrastructure, with repavement being the largest Project component. The proposed Build Alternative does not include construction of new pedestrian underpasses. Caltrans may consider construction of such elements as part of future efforts along this corridor.

Please see the response to Comment I-18-1.

Comment Letter I-19: Steve Terry

From: Steve Terry <terrysteve@comcast.net>
Sent: Thursday, August 25, 2022 11:38:10 PM
To: Seal, John@DOT <John.Seal@dot.ca.gov>
Subject: State Route 1 Multi-Asset Roadway Rehabilitation Project — (project ID 04-1800-0053).

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi John,

These comments relate to the *State Route 1 Multi-Asset Roadway Rehabilitation Project, Draft Initial Study with Proposed Negative Declaration,* (DIS/ND).

Regarding traffic management system elements, the entirety of this component for the proposed project is described in the two paragraphs of section 1.4.6:

> ***1.4.6 Conduits, and Traffic Operation System Elements Installation***
>
> *The proposed TOS elements are needed because SR 1, through the project area, lacks traffic monitoring systems that can be used to collect data on traffic flow and volumes. These data can be used to inform future planning decisions and projects in San Mateo County. Overall, Caltrans anticipates that inclusion of TOS elements into this project would improve traffic congestion along the corridor by helping to identify future transportation needs and deficiencies.*

I-19-1

> *Caltrans proposes to upgrade and install new communication devices, such as closed-circuit television cameras, fixed intersection cameras, and traffic monitoring stations. Figure 1-3 through Figure 1-5 show the proposed locations for these TOS elements. New conduit installation to support these elements would require trenching during installation. Excavation limits would be determined by conduit size and location.*

That description is very general, but the referenced figures provide a bit more detail:
Figure 1-3 specifies locations for three *closed circuit television* (CCTV) cameras.
Figure 1-4 specifies locations for nine *fixed intersection* cameras.
Figure 1-5 specifies locations for two *traffic monitoring systems* (TMS).

In section 1.4.6, TMS are *stations*, whereas in Figure 1.5, they are *systems*.
Regardless, the detailed nature of the TMS are not defined anywhere in the DIS/ND.
However, in your Jul 21 public meeting, the following slide was included in the presentation:

This would indicate the TMS systems are inductive loops. In the Q&A session of the Jul 21 meeting, it was asked whether the TMS systems mentioned in the DIS/ND were, in fact, inductive loops, and your team replied that they were.

> 1. Please confirm that the TMS system listed in the DIS/ND only specify inductive loops.

I have heard that inductive loops are not a preferred technology by Caltrans as they do not provide quality traffic monitoring data.

> 2. Please comment on the quality, efficacy, and utility of inductive loops, especially in comparison to other traffic management system elements. And please describe how they integrate into a comprehensive traffic management system, for example, when an inductive loop system would be preferred instead of another element.

I-19-1 Cont.

The DIS/ND differentiates between CCTV and fixed intersection cameras, whereas the above slide differentiates between fixed intersection and dome cameras, both of which are characterized as CCTV.

> 3. Please provide clear, unambiguous detail on the type of cameras proposed for this project.

> 4. Also, please provide a link to Caltrans' specification document(s) for each of the cameras that the system design engineer must satisfy for product selection.

A common concern is whether the cameras will have the physical ability to read license plates (regardless of stated intent, as intent can change over time whereas the camera technology, once installed, cannot be downgraded via policy). Such technology necessitates rigorous safeguards to protect privacy. The ACLU has flagged the issue of traffic cameras increasingly being used to track Americans' movements.
(Please see https://www.aclu.org/issues/privacy-technology/location-tracking/you-are-being-tracked)
They call for policies that adhere to the following principles:

I-19-2

1. License plate readers may be used by law enforcement agencies only to investigate hits and in other circumstances in which law enforcement agents reasonably believe that the plate data are relevant to an ongoing criminal investigation.
2. The government must not store data about innocent people for any lengthy period. Unless plate data has been flagged, retention periods should be measured in days or weeks, not months and certainly not years.
3. People should be able to find out if plate data of vehicles registered to them are contained in a law enforcement agency's database.
4. Law enforcement agencies should not share license plate reader data with third

parties that do not follow proper retention and access principles. They should also be transparent regarding with whom they share license plate reader data.
5. Any entity that uses license plate readers should be required to report its usage publicly on at least an annual basis.

5. If the camera system technology includes the capability to read license plates, (e.g., to satisfy Amber Alert needs), please address each of the principles above individually and describe whether and how Caltrans is making best efforts to abide by each policy.

I-19-2 Cont.

Because of the very brief and general description of the traffic management elements proposed for this project, there is concern that SR-1 is being instrumented in a disjointed, piecemeal fashion. There doesn't appear to be a coordinated, long term effort stemming from a comprehensive plan. Indeed, in response to my earlier mail, you had indicated that **"the corridor traffic management plan is currently in development under our Caltrans Traffic Operations team. Due to this, there is nothing to share at the moment"** [emphasis added]. This is very concerning and can lead to numerous detrimental results, including over- or under-instrumentation, unnecessary costs, (e.g., if system is over-built), inefficiencies (in installation, etc.), interoperability issues, right-sizing, and so on.

6. Please provide an estimate for when a preliminary comprehensive corridor traffic management plan will be completed and available for public review.

7. Please remove the traffic management system elements from this project unless or until a preliminary corridor traffic management plan is first completed.

Taking a long term view of the situation, there is question as to whether many of the traffic management system elements are needed at all. A decade ago, very few people had smart phones; now, nearly everyone does, and those devices provide accurate, reliable traffic information to drivers (and any 3rd parties that may want to make use of it). This technology is rapidly advancing, and, a decade from now, it's likely that every vehicle will have a smart-phone-like device built into its dashboard, providing traffic info far better than we're accustomed to today.

I-19-3

8. Please describe what consideration Caltrans has given to smart phone, dashboard, and mobile device technology generally as a strategy for achieving quality and effective traffic management and how that technology can be leveraged by Caltrans and how that strategy fits it with (or, perhaps, competes with) its SR-1 corridor traffic management plan.

9. Please include the considerations of #8 above in your upcoming comprehensive corridor traffic management plan.

The only cost information provided in the DIS/ND is the total project cost, estimated at $46M. It would greatly help guide public understanding to provide, at least, a breakdown of cost estimates for various components.

10. Please provide project cost estimates for the various high level components of the project, specifically, each of 1.4.2 – 1.4.10.

Thank you for your consideration on these concerns.
Steve Terry
El Granada

Response to Comment Letter I-19: Steve Terry

I-19-1. The proposed traffic operation system (TOS) elements are described in Section 1.4.6, and would include closed-circuit television cameras, fixed intersection cameras, and traffic monitoring systems (TMS). TMS are inductive loops that would be installed on or below the roadway surface.

Inductive traffic loops may not provide the same level of detail as cameras with some analytical capabilities. However, loop detectors are a preferred means for operating traffic signals because they are 97 to 99 percent accurate in detecting vehicles. Fixed intersection cameras can provide additional traffic information that is not possible with the current loop infrastructure, such as the number of left-, through-, and right-turning vehicles. Depending on the vendor, pedestrian and bicycle counts can also be collected with fixed intersection cameras.

The proposed closed-circuit television cameras would have the ability to monitor the approaches without the need to move the camera to monitor other movements or incidents.

The specifications for cameras installed by the Project will be determined in the final design phase, and specific manufacturers are not dictated by specifications. Materials that meet the requirements of contract specifications may be acceptable for installation.

Caltrans' standard plans and specifications are available to the public here:

https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications

Please be aware that the final design may require nonstandard plans or specifications that would be included in the Project's final bid package.

I-19-2. The cameras proposed for this Project's Build Alternative are for vehicle detection to collect traffic information for analysis. The existing and proposed cameras owned and maintained by Caltrans are not used for scanning automobile plates. Traffic data collected by Caltrans goes directly to Caltrans and does not go to a third party.

I-19-3. Caltrans has not proposed a comprehensive corridor traffic management plan, and the proposed Project build alternative does not require such a plan. Caltrans will develop a Project-specific traffic management plan, described in Section 2.2, Transportation, as avoidance and minimization measure TRANS-01. This measure states:

TRANS 01: Development of a Transportation Management Plan

Caltrans will develop a Project-specific TMP during the final design phase of the Project. The TMP will be prepared in accordance with Caltrans requirements and guidelines to minimize construction-related delays and impacts on emergency vehicles and the traveling public. The TMP will include the following provisions:

- Coordination with San Mateo County, the City of Half Moon Bay, and any other applicable local jurisdictions for notification of closures and detours
- Coordination with the California Highway Patrol and other local law enforcement
- Use of portable changeable message signs, the California Highway Patrol construction zone enhanced enforcement program, one-way traffic controls, and flaggers
- Continued access for emergency services
- Continued access to any residential driveways

Regarding removal of traffic management systems from this Project, Caltrans will retain these elements as part of the Build Alternative. These traffic systems would be critically necessary to understand existing traffic conditions and estimate future traffic needs along this section of the SR 1 corridor.

Regarding use of cellular phone applications or cars with digital applications that can provide traffic information to inform motorists of roadway conditions, Caltrans cannot verify the accuracy of nor rely on private companies such as Google or WAZE to draw its real time travel data to manage the highway corridor that is owned and operated by the state. These cellphone applications are third-party applications and may not be available to all travelers. Furthermore, the use of cellphones and applications while driving is unsafe because they may contribute to motorists looking away from the road and outside surroundings to view cellphone screens.

Caltrans requires real-time travel information to assess traffic flow and congestion levels along all its corridors. Continuous monitoring enables Caltrans to act quickly in emergencies for incident management purposes, and in this case would allow Caltrans to communicate with coastal communities that are somewhat more remote than others in the San Francisco Bay Area. The WDS proposed in this Project assists in collecting generalized real-time travel data from corridor traffic.

Comment Letter I-20: Carlysle Ann Young

From: Carlysle Ann Young

8-24-2022

To: John Seal, Associate Environmental Scientist Caltrans District 4 PO Box 23660, MS 8B Oakland, CA 94623-0660 Via Email – john.seal@dot.ca.gov

RE: SUBJECT: MidCoast Citizen's Comments on the Draft Initial Study with Proposed Negative Declaration for the State Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130)

I-20-1

While there are many necessary and long-awaited improvements in the proposed project, some details and information seem to be missing making it difficult for the public to fully review the impacts to our community. Due to community concerns, and the notification glitch given to the public to respond within the 30-day review period, at the minimum I would like to request an extension of the review period for 15 days following an additional presentation by Caltrans at a local meeting thus allowing essential public input with Q & A .

My comments are:

I-20-2

A.) **Regarding Roadway Rehabilitation: one.)** Please add more room on the shoulders beyond the fog line as I often notice in many places there is barely any room for cyclists to safely pedal along without drifting into traffic. (This is especially noticeable along the edges of Devil's Slide, and I worry that I might hit the pedestrians or cyclists who have the habit of riding or walking along that stretch, despite the lack of a consistent shoulder width.) I do not believe there is a consistent shoulder width anywhere along the section you are proposing to rehabilitate. **2.)** Please leave enough room for two people to walk abreast or for a cyclist to pass a pedestrian along the shoulders.

I-20-3

B.) **Guardrails –** I know that there is a great need for sufficient Barriers along the Highway One portion known as Devil's Slide, due to incidents of cars flying off the cliffs there, but I am vehemently opposed to the urban look and feel of the "Midwestern Guard Rail Systems" that you are proposing. **1.)** Because they use concrete to anchor them in place (which should be a neutral earth tone color if used at all) I feel in the interest of ***sustainability***, that you should consider anchoring them with a more pervious material to allow for water to percolate into the ground below, rather than installing a hard surface that creates more run-off in storms. **2.)** And, besides, there is a world-wide sand shortage, which is an element needed to make concrete. **3.)** Using a hardscape material will not keep down weeds in this Coastal environment, just look at the provided photos of the guardrails on Hwy 92. We get so much wind, that weed seeds are blown about and plant themselves even in the cracks of concrete sidewalks or pavers. Do not waste the money on concrete, simply in the name of weed suppression. **4.)** I saw no mention of the terminal buffers (endcap treatments for the guardrail), but I would like to suggest that a rounded terminal buffer should be used, if these guard rails are eventually installed. **5.)** Never-the-less, please consider a less URBAN, more aesthetic treatment, which takes into consideration the scenic corridor views, as well as our environment, rather than the mundane guardrail solution that you have proposed. **6.)** I did not see a location list of the proposed guardrails. For instance, would you be placing them along the west side of the Highway at "Surfer's Beach"? If so, a barrier there "might" deter some of the multiple incidents of Jaywalkers who cross the road frequently in El Granada but will block ocean views. **7.)** Please keep in mind the special, unpretentious rural attractiveness of the Coastal corridor, and try not to make the Coast take on the industrial appearance of Milpitas.

I-20-4

C.) **Traffic Monitoring Systems – AKA " Intelligent Traffic System" 1.)** I am in favor of imbedding traffic monitoring devices in the roadways ***right away***, because of the need for updated vehicle counts at specific, already-impacted intersections is urgent. Then, once you get around to selecting other systems in 2023 (fixed dome cameras, CATV or similar camera systems) you will have some idea of the **congested traffic burden** we are currently facing. **2.)** Since school has gone back into session, the morning commute back-up starts at the first traffic signal at Capistrano Road in El Granada heading towards Half Moon Bay, and continues south all the way to Kelly Avenue, just past Hwy 92. There are three schools in Half Moon Bay and the Unincorporated area parents must drive their children there five days a week in horrible back-

I-20-4 Cont.

ups because **THERE ARE NO SCHOOL BUSES! 3.)** Weekends are far worse, because it does not let up after school starts, as on weekdays, but we endure a 2-day-long flow of visitors from other areas. **4.) There is a dire need for traffic flow data monitoring immediately, because of the decades-long unaddressed #HMBGRIDLOCK. Every new proposed construction project seems to get "approved in a vacuum" without adequate, updated traffic data, and quite a few projects are under consideration right now using older traffic surveys. 5.) Please also consider installing one imbedded sensor at Marine Blvd, in Moss Beach, at the far northern end of this project. That will help estimate the amount of time it takes to get from Moss Beach to Half Moon Bay (7 MILES).**

I-20-5

D.) Drainage – Culverts and Dikes 1.) It is quite easy to observe that the highway storm water run-off is haphazard at best, on the Coastside. I have observed vast puddles of water in various locations over the years: At North Main Street and Hwy 1 in Half Moon Bay the unimproved median comprised of dirt & weeds becomes a mushy mess, as well as at the junction of Hwy 1 and 92 in the intersection where left-turning motorists getting on Hwy 92 must splash their way through the intersection at that light. Also, heading north on Hwy 1, near the Airport and the Brussels Sprouts fields there are larger puddles on the sides of the Highway. Last December's storm, the area of the Highway at Carlos Street, near the Sheriffs' substation in Moss Beach, was flooded, despite the cattails/bullrushes growing in the marshy area between the Post Office and the Highway. **2.)** It is also worth noting that Caltrans does not do any regular cleaning or maintenance of existing drainage features year-round (just observe photos provided of the pampas grass growing out of the drain grates next to the center divider on Hwy 92 just west of Skyline Hwy 35). The Road maintenance crews wait until just before the first winter storms arrive to attempt to clear highway storm drains, and then water runs off the roadways in sheets to wherever it can, taking whatever floating debris (trash & leaves) with it. **3.) Because of this, it is imperative that any future drainage dikes have adequate screening devices to keep from getting clogged OR that culverts are constructed with an adequate capacity or provide ample flow during significant storms like the one we had on Dec. 13th, 2021. 4.)** Not only should the Culvert for Medio Creek remain useable for an under roadway crossing for people (as it historically has been) but consideration should also be made for other culverts to be large enough for wildlife to pass underneath the highway as well.

I-20-6

E.) Complete Streets 1.) Please do not add *ANY* additional crosswalks at Coronado or the proposed Surfer's Beach "Mid Crossing." As it is now, morning traffic congestion is already horrible, and adding another two crossings will only make it worse. ***Please*** do a complete month's traffic survey and ***observational*** study there before moving forward with this ill-conceived project. On weekends, despite the huge mobile flashing sign *ONLY CROSS AT DESIGNATED CROSSWALKS* people continuously ignored the flashing notice, and families dragging kids, beer coolers and beach gear or surfers carrying their boards simply crossed over to the beach side from whatever location they had parked their cars. Therefore, a mid-block crossing would become quickly irrelevant. **2.)** The curb was not originally painted red on the west side of Hwy 1 at Surfer's Beach when I first moved to the Coast in 1988, but then one day, the City of Half Moon Bay had that western side curb painted red, without any (or much) public notice, and …. without the necessary permits to do so from Caltrans. (There are not any posted No Parking signs, which cause me to doubt the legality of the red curb.)Please Provide the **documentation** of the permitting of the Westside red curb at that section of roadway.) I also observed that the sand and weeds are nearly covering the curb now, but neither The City of HMB nor Caltrans seem to maintain the street sweeping of that section. **3.)** By checking existence of, or revoking the past **red curb** permits for that area, you could save a bundle of money by restoring the parking on the westside of the highway and eliminate the need for a mid-block crosswalk, that will not be used anyway. By having the parking ***ONLY*** on the Eastern side of the road, you have created an on-going Jaywalking situation that could be avoided by once again permitting (restoring) the west side parking. **4.)** Incidentally, a CHP patrol car was involved in hitting and killing an inebriated jaywalker who was apparently running across the highway in the dark, from SAM's Chowder House back to where he parked his vehicle after attending a reception, so an observational study should be done about the total trans-highway pedestrian crossings that take place ***weekly,*** and at ***all hours***, between the two signals at Coronado and Capistrano, due to attractions on the west side such as the beach, the restaurant or the hotel & RV Park on the opposite side of the road from the eastside parking. **5.)** As part of

I-20-6 Cont.

your initial study, I would like to see an analysis of the average speeds being driven on that stretch vs the posted speed. It often moves at a crawl, and if a motorist is lucky enough to not encounter any traffic back-up, they still need to be alert to wayward pedestrians crossing everywhere, to get to the beachside, or back to their parked cars, often with children, dogs, or objects in their grasp. (See images of Surfer's beach curb & jaywalkers strolling across the road).

F.) **Safety Risks that have not been covered in the study. 1.) Emergency Evacuation** Not only does the City of Half Moon Bay **NOT** have any Emergency Evacuation Plan in place, but I have yet to see anything from San Mateo County or CalFire either. (They are working on it, but that could also just be lip-service.) **1.)** Never-the-less, we might all be trapped, in the event of a wildland fire, like there was on the South Coast in 2020; Or due to a Tsunami like the ones on April 1st, 1946 at Princeton Harbor (from the Aleutian Islands E/Q near Alaska) or on March 12, 2011 (from the Fukushima, Japan E/Q) because there is the possibility that our roads, and escape routes would be flooded. There also could be a strong local Earthquake in the Bay Area (as has been long predicted) that might cause roads to separate, keeping first responders from getting to areas that may need medical assistance, fire suppression, or rescue due to a building collapse.

I-20-7

I am also concerned that there might be significant hazards awaiting us should the large eucalyptus trees growing in the creeks adjacent to Highway One at Medio Creek and Ruisseau Francais suddenly topple or lose heavy branches in a windstorm. Note: CalTrans did remove one tree that was blocking the view of the traffic signal heading north, at Frenchmen's Creek... but it is already sprouting again and might regrow. They left another tree remaining there, and those branches hang down and block the signal when driving northbound, as well. Besides visibility concerns, I am concerned about the possibility of those large trees coming down in a bad coastal storm and injuring people or blocking the only roadway north & south. **2.)** Please form a plan to remove these heavy, unstable trees when doing culvert work or roadway improvements in these areas (Hwy 1 at Miramar Drive and Furtado Lane near Medio Creek AND the remaining trees blocking the northbound Frenchmen's Creek signal at Highway One at Ruisseau Francais Ave.

Thank you for addressing my concerns as a long-time resident of the Coastside.

Sincerely,

Carlysle Ann Young

180 San Lucas Avenue

Moss Beach, CA 94038

ADDENDUM photos on next 5 pages

Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130 5 PAGES WITH LETTER FROM C.YOUNG

I-20-8

CEMENT DOES NOT PREVENT WEEDS AROUND GUARD RAILS

PLEASE USE A MORE SUSTAINABLE, AND A PERVIOUS ANCHOR.

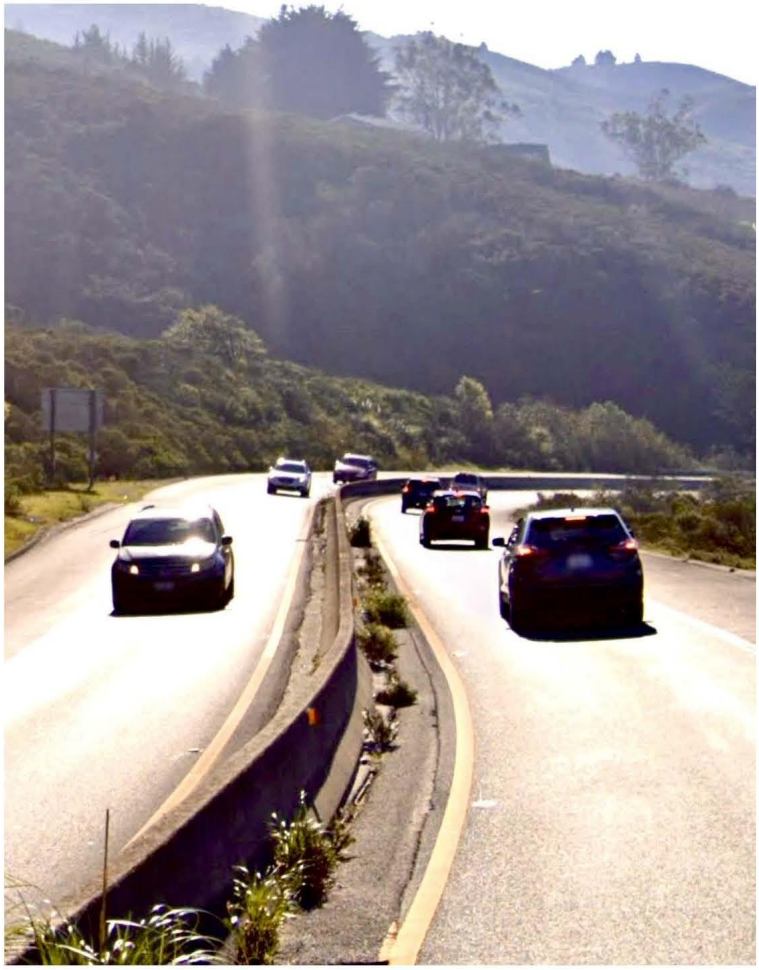
I-20-9

DRAINAGE SYSTEMS GET CLOGGED WITH TRASH AND WEEDS UNLESS MAINTAINED VERY FREQUENTLY.

HIGHWAY 92 WEST JUST BELOW SKYLINE HWY 35 INTERSECTION

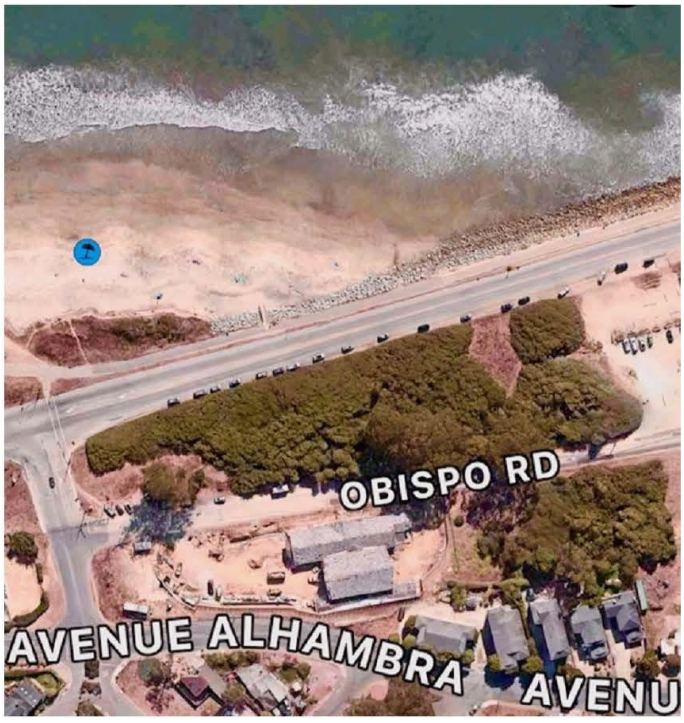
PAMPAS GRASS, WEEDS AND TRASH GROWING FROM THE DRAINAGE SLOTS ALONG THE CENTER K-RAIL ON HWY 92 WESTBOUND

I-20-10

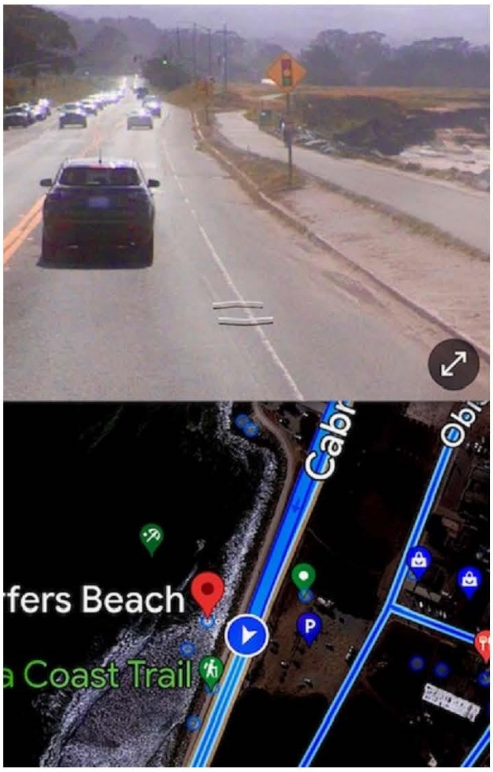


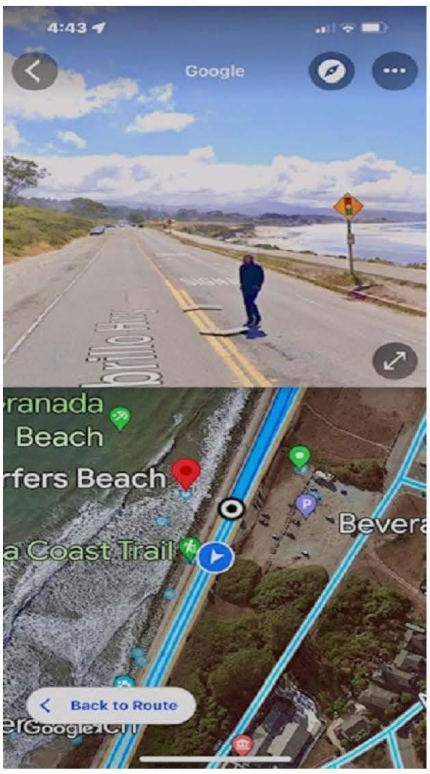
CABRILLO HWY BETWEEN CORONADO & CAPSTRANO AT SURFER'S BEACH ELG & HMB

I-20-11



I-20-12



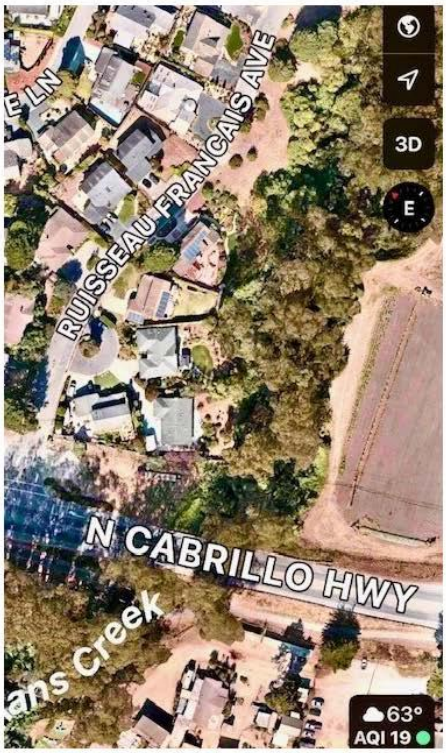


ONCE THE CURB WAS PAINTED RED, BEACH-GOERS ONLY PARK ON THE EAST SIDE OF THE HWY & THEN JAY WALK TO AND FROM

I-20-13

THE LACK OF ANY VISIBLE NO PARKING SIGNS, OR STREET SWEEPING AT CURB, MAKES ME BELIEVE THE RED CURBS WERE UNAUTHORIZED.

I-20-14



PLEASE CONSIDER REMOVING DANGEROUS EUCALYPTUS TREES FROM THE CREEK BEDS AT HWY ONE IN MIRAMAR, AT MIRAMAR DRIVE AND FURTADO LANE NEAR THE MEDIO CREEK CROSSING AND ALSO NEAR THE FRENCHMEN'S CREEK BY THE (RUISSEAU FRANCAIS) SIGNAL WHERE ONE TREE WAS TOPPED RECENTLY IN HALF MOON BAY.

NOT ONLY ARE THEY DANGEROUS IN STORMS, BUT THEY COULD CLOSE THE HIGH-WAY WERE THEY TO FALL ON A CAR.

WE NEED TO BE ASSURED OF A SAFE AND CLEAR EVACUATION ROUTE, IN CASE OF AN EMERGENCY!

THANK YOU! Route 1 Multi-Asset Roadway Rehabilitation Project (EA 04-0Q130

Response to Comment Letter I-20: Carlysle Ann Young

I-20-1. Caltrans provided notification to the public of the availability of the Draft Initial Study by sending out mailers to local residents near the proposed Project area; posting the draft initial study document on its District 4 Website; posting the document on CEQA-Net; transmitting notification letters to state and local elected officials, non-elected state and federal officials, and direct stakeholder groups in advance of circulation; and by sending notification to agencies with interest through its CEQA posting on the State Clearinghouse. A public meeting was held as announced on July 21, 2022, to make the public aware of the availability of the draft Initial Study and provide an opportunity to ask clarifying questions on the proposed Project.

Caltrans has accepted comments submitted after the close of comment date for inclusion in the final Initial Study document and posted the meeting materials on its District 4 website.

Caltrans has adequately provided notification and opportunity for public input and has received substantial input on this Project's draft Initial Study. The formal comment period was not extended, and an additional public meeting will not be held.

I-20-2. This comment requests that Caltrans look into the feasibility of increasing shoulder widths along SR 1 within the Project limits. It is Caltrans policy to implement 8-foot shoulders where feasible. However, 4- to 6-foot shoulders may be considered in locations where constructing larger shoulders would have substantial adverse environmental or right-of-way impacts, or would conflict with local coastal plans.

I-20-3. This comment refers to the Midwest Guardrail System (MGS) proposed by the Project to replace existing Metal Beam Guardrail (MBGR). The proposed guardrail replacement locations are shown in Figure 1-2 of the Draft Environmental Document. Caltrans' final design for this element will comply with standard plans and policies for MBGR.

The proposed MGS would be aesthetically similar to existing MBGR, and would update these elements to meet current design and safety standards. It is Caltrans' goal to employ context-sensitive solutions wherever feasible to maintain the scenic character of SR 1. The goal of using concrete treatments, where applicable, is to reduce and minimize the abundance of weeds in such areas. This does not entirely prevent weed growth, but it reduces the need for frequent maintenance (and thus time spent by workers adjacent to live traffic) and allows Caltrans maintenance workers to remove weeds safely and efficiently.

Regarding Surfer's Beach, the Build Alternative does not propose to add new guardrail at this location. Existing MGBR would be replaced with the current standard MGS; no new guardrail would be added where it does not already exist. Please refer to Figure 1-2 for guardrail replacement locations.

I-20-4. The objective of the proposed traffic operation system elements is to gather key data on traffic volumes and patterns to inform future planning decisions along the coast. The proposed traffic operation system (TOS) elements will do this by implementing closed-circuit television cameras, fixed intersection cameras, and traffic monitoring systems (which include inductive loops on or below the roadway surface). Please note that Caltrans cannot implement any such features, including inductive loops, until the proper environmental evaluation has been completed and the Project has been approved. It should also be noted that the Project's design is currently conceptual, and would be finalized during the detailed design phase.

I-20-5. Caltrans appreciates your concern regarding drainage patterns, and the adequacy of existing facilities. The Build Alternative would include the following drainage inlet, culvert, and dike replacement work:

- Replacement of 12-inch-diameter pipes with 18-inch-diameter pipes
- Replacement of a headwall and 20-foot-long pipe for a 72-inch-diameter reinforced concrete pipe at PM 31.31
- Addition or replacement of flared end sections at ends of pipes, as needed
- Lining the inside of 24-inch, 36-inch, and 60-inch pipes, as needed
- Cleaning and clearing buried pipe ends to maintain flow pattern
- Repairing or replacing damaged headwalls to improve flow into culverts
- Regrading certain unlined ditches to maintain original flow pattern
- Cleaning existing drainage facilities

These actions would improve drainage along SR 1 by replacing or upgrading existing facilities.

I-20-6. The crosswalk locations that would be implemented as part of the Build Alternative have been identified in regional and local plans as pedestrian needs. The proposed crosswalk at Coronado Street is not expected to lead to traffic delays, because the intersection is already signalized. Please note that the potential Surfer's Beach crossing is not part of the Build Alternative at this time, but would be explored further by Caltrans and local stakeholders.

I-20-7. Thank you for sharing your additional concerns regarding safety. Please note that the scope of this environmental assessment is limited to the Build Alternative and No Build Alternative described in Section 1.5 of the Draft Environmental Document. Although the safety-related topics this comment references are not part of the Build Alternative, that does not preclude future projects from incorporating additional safety features.

I-20-8. See the response to Comment R-4-3. Concrete vegetation control is used under guardrail to minimize weed growth, and effectively reduces maintenance worker exposure to high-speed traffic without the use of herbicides. It does not completely eliminate weed growth, but vastly reduces it, thereby protecting maintenance workers by minimizing time spend in hazardous situations. These benefits are weighed against visual impact, and concrete vegetation control is not recommended along scenic, undeveloped segments of the coast. Caltrans evaluated the visual context for proposed guardrail replacement in the Project corridor and determined that it occurs at or near urbanized areas.

I-20-9. Caltrans is working with the Regional Water Quality Control Board to design and implement trash capture measures in its roadway drainage projects. Caltrans makes its best efforts to manage and maintain drainages in its right-of-way, and it is a substantial undertaking. Trash and weeds accumulate in drainages substantially as a result of upstream sources (weeds that have established in the surrounding ecosystem) and people who dump their waste in the roadway or surrounding communities, where it is then blown or washed into drainages. Caltrans welcomes all individual, community, and local support in reducing the sources of these waste streams into our shared environment and will continue to work with stakeholders in managing this shared challenge.

I-20-10. Pampasgrass and jubatagrass (*Cortaderia* spp.) are considered species of High Invasiveness by the California Invasive Plant Council. Caltrans included in the draft and final Initial Study, Project Feature PF-BIO-10, Invasive Species Management. The text of that measure is provided again here in response to this comment.

To reduce the spread of invasive nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. The purpose of this order is to prevent the introduction of invasive species and provide for their control to minimize economic, ecological, and human health impacts. If high- or medium-priority noxious weeds, as defined by the California Department of Food and Agriculture or the California Invasive Plant Council, are disturbed or removed during construction-related activities, the contractor will contain the plant material associated with these noxious weeds and will dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. If seeding is not possible, the area will be covered to the extent practicable with heavy black plastic solarization material until completion of construction. All earthmoving equipment, as well as seeding equipment to be used during Project construction, would be thoroughly cleaned before arriving on the Project site.

I-20-11. Thank you for providing a screenshot of this online map showing SR 1 near Surfer’s Beach.

I-20-12. Caltrans is continuing to coordinate with state and local stakeholders on pedestrian crossings at Surfer's Beach. The following text is included in the Initial Study under Section 1.4 and is repeated here in response to this comment.

Coordination with Local Transportation Plans, and Pedestrian Crossings on SR 1 at Surfer's Beach

Coordination with San Mateo County would occur to complete the medium to long-term improvements that are proposed in the Caltrans-funded SR 1 Safety and Mobility Improvement Studies (http://planning.smcgov.org/highway-1-safety-and-mobility-study) and the County of San Mateo's Connect the Coastside, San Mateo County Midcoast Comprehensive Transportation Management Plan, Final Draft October 2021 (hereafter referred to as Connect the Coastside Plan), available online at: https://planning.smcgov.org/connect-coastside (San Mateo County 2021). Caltrans will continue to coordinate with the County of San Mateo and local stakeholders on pedestrian crossings on SR 1 at Surfer's Beach in the community of El Granada, as recommended in the Connect the Coastside Plan (see Connect the Coastside Plan, Map 14: Recommended Infrastructure Improvements El Granada, Page 109; https://planning.smcgov.org/sites/planning.smcgov.org/files/Connect%20the%20Coastside%20Final%20Draft_Oct%202021.pdf.

I-20-13. See the response to Comment I-16-11. Roadside parking is not allowed on the southbound shoulder of SR 1 at Surfer's Beach. Caltrans maintains this segment of the road at SR 1 and provides street sweeping. This location is directly adjacent to Surfers Beach and is subject to high winds and sand blowing into the road.

Caltrans is respectful of the coastal community and makes all best efforts to avoid and reduce the number of signs in the Coastal Zone that would clutter and affect coastal views along SR 1. The addition of No Parking signs at this location is not proposed.

I-20-14. Caltrans will manage trees in its right-of-way that pose a risk to road users. During the Project's final design and permitting phase, any trees identified for trimming and/or removal will be addressed. Any trees proposed for removal and any proposed replanting will be coordinated with the appropriate permitting agencies with jurisdiction.

Caltrans' Initial Study proposes avoidance and minimization measure BIO-01 for riparian vegetation protection.