State Route 1 Bridge Rail Replacement Project

Draft Initial Study with Proposed Negative Declaration

MARIN COUNTY, CALIFORNIA
DISTRICT 4 – MRN – 1 (PM 0.4-23.0)
04-0P960/0418000030

Prepared by the
State of California, Department of Transportation

April 2023

General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the State Route (SR) 1 Bridge Rail Replacement Project (Project). Caltrans proposes to remove and upgrade the existing bridge rails at the Coyote Creek Bridge/Location 1 (post mile [PM] 0.42), Eskoot Creek Bridge/Location 2 (PM 12.37), Olema Creek Bridge South/Location 3 (PM 22.81), and Olema Creek Bridge North/Location 4 (PM 22.96) on SR 1 in Marin County, California. The Project would also include widening Coyote Creek Bridge/Location 1 by 2 feet on each side (for a total of approximately 4 feet), Eskoot Creek Bridge/Location 2 by 2 feet and 1 inch on each side (for a total of approximately 4 feet and 2 inches), Olema Creek Bridge South/Location 3 by 1 foot and 5 inches on each side (for a total of approximately 2 feet and 10 inches), and Olema Creek Bridge North/Location 4 by 8 inches on each side (for a total of approximately 16 inches), to accommodate the updated bridge railings. Additional Project information is provided in Chapter 2.

Caltrans is the lead agency under the California Environmental Quality Act (CEQA). This IS/ND describes why Caltrans proposes the Project, how the existing environment could be affected by the Project, potential environmental impacts, and the Project Features, and avoidance and minimization measures that would avoid and/or minimize Project impacts.

What you should do:

- Please read this IS/ND.
- This IS/ND, maps, and Project information are available to download at the District 4 Environmental Documents by County website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs). In addition, a hard copy of this IS/ND will be made available at the following location in the vicinity of the Project:
  - Point Reyes Library
    11431 State Route 1
    Point Reyes Station, CA 94956

- Marin City Library
  164 Donahue Street
  Sausalito, CA 94965

- We would like to hear what you think. Send comments by June 20, 2023, to either of the following:

Caltrans, District 4
ATTN: Elizabeth Nagle, Senior Environmental Planner
P.O. Box 23660, MS-8B
Oakland, CA 94623-0660; or

The Project email address: 04_0P960_Project_Inbox@dot.ca.gov

What happens next:

Per CEQA Section 15073, Caltrans will circulate this IS/ND for review for 30 days from May 22, 2023, to June 20, 2023. During the 30-day public review period, the general public and responsible and trustee agencies can submit comments on this IS/ND to Caltrans. Caltrans will consider the comments and will respond to the comments after the 30-day public review period.

After comments have been received from the general public and responsible and trustee agencies, Caltrans may:

1. Grant environmental approval to the Project.
2. Conduct additional environmental studies.
3. Abandon the Project.

If the Project is granted environmental approval and funding is obtained, Caltrans could design and construct all or part of the Project.

Alternative Formats:

For individuals with sensory disabilities, this IS/ND can be made available in Braille, in large print, on audiocassette, or on computer disk by writing to the Caltrans District 4 mailing or email address or by calling **California Relay Service** at **(800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.

An accessible electronic copy of this IS/ND is available to download at the District 4 Environmental Documents by County website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs).

Initial Study with Proposed Negative Declaration

04-MRN-1	0.4-23.0	04-0P960
DIST. – CO. – RTE.	PM	EA

Project title:	State Route 1 Bridge Rail Replacement Project
Lead agency name and address:	California Department of Transportation 111 Grand Avenue, Oakland, CA 94612
Contact person and phone number:	Elizabeth Nagle, Senior Environmental Planner (510) 496-9654
Project location:	Marin County, California
General plan description:	Conventional Highway
Zoning:	Transportation Corridor
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements)	Marin County California Department of Fish and Wildlife California Transportation Commission National Park Service Regional Water Quality Control Board San Francisco Bay Conservation and Development Commission U.S. Army Corps of Engineers U.S. Fish and Wildlife Service

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Maxwell Lammert

Maxwell Lammert
Acting Chief, Office of Environmental Analysis
California Department of Transportation, District 4

4/14/2023
Date

To obtain a copy in Braille, in large print, on audiocassette, or on computer disk, please mail Caltrans, District 4, ATTN: Elizabeth Nagle, Senior Environmental Planner, P.O. Box 23660, MS-8B, Oakland, CA 94623-0660; email 04_0P960_Project_Inbox@dot.ca.gov; or call **California Relay Service** at **(800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.

Proposed Negative Declaration

Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the State Route (SR) 1 Bridge Rail Replacement Project (Project). Caltrans proposes to remove and upgrade the existing bridge rails at the Coyote Creek Bridge/Location 1 (post mile [PM] 0.42), Eskoot Creek Bridge/Location 2 (PM 12.37), Olema Creek Bridge South/Location 3 (PM 22.81), and Olema Creek Bridge North/Location 4 (PM 22.96) on SR 1 in Marin County, California. The Project would also include widening Coyote Creek Bridge/Location 1 by 2 feet on each side (for a total of approximately 4 feet), Eskoot Creek Bridge/Location 2 by 2 feet and 1 inch on each side (for a total of approximately 4 feet and 2 inches), Olema Creek Bridge South/Location 3 by 1 foot and 5 inches on each side (for a total of approximately 2 feet and 10 inches), and Olema Creek Bridge North/Location 4 by 8 inches on each side (for a total of approximately 16 inches) to accommodate the upgraded bridge railings. Additional Project information is provided in Chapter 2.

Determination

This Proposed Negative Declaration is included to notify the general public, responsible agencies, and trustee agencies that Caltrans intends to adopt a Negative Declaration for the Project. This Negative Declaration is subject to change based on comments received from the general public, responsible agencies, and trustee agencies.

Caltrans has prepared this IS/ND for the Project and, pending public review, expects to determine from this study that the Project would not have a significant effect on the environment for the following reasons:

- The Project would have no impacts on agriculture and forest resources, land use and planning, mineral resources, population and housing, recreation, and tribal cultural resources.
- The Project would have less-than-significant impacts on aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation, utilities and service systems, and wildfire.

_____ _____

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

Date

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List of Abbreviated Terms

Abbreviated Term	Definition
AASHTO	American Association of State Highway and Transportation Officials
AMM	avoidance and minimization measure
APE	area of potential effects
APN	Assessor's Parcel Number
BSA	Biological Study Area
BMP	best management practice
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCA	California Coastal Act
CCC	Central California Coast
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH_4	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO_2	carbon dioxide
CRLF	California Red-Legged Frog
CWA	Clean Water Act
dBA	A-weighted decibel
EFH	essential fish habitat
ESA	Environmentally Sensitive Areas
ESHA	environmentally sensitive habitat area

Abbreviated Term	Definition
FIGR	Federated Indians of Graton Rancheria
GGNRA	Golden Gate National Recreation Area
GHG	greenhouse gas
IS/ND	Initial Study with Proposed Negative Declaration
L_{max}	highest sound level measured during a single noise event
MASH	*Manual for Assessing Safety Hardware*
MBGR	metal beam guardrail
MGS	Midwest Guardrail System
MCP	Marin Countywide Plan
MLD	Most Likely Descendent
MRZ	Mineral Resource Zone
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NES	Natural Environment Study
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NSO	Northern spotted owl
PA	Programmatic Agreement
PF	Project Feature
PM	post mile
$PM_{2.5}$	particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers

Abbreviated Term	Definition
PM_{10}	particulate matter with aerodynamic diameter equal to or less than 10 micrometers
Project	State Route 1 Bridge Rail Replacement Project
PQS	Professionally Qualified Staff
PS&E	plans, specifications, and estimates
ROW	right of way
RWQCB	(San Francisco Bay) Regional Water Quality Control Board
Section 106	Section 106 of the National Historic Preservation Act
SHOPP	State Highway Operation and Protection Program
SR	State Route
SSC	Species of Special Concern
SSP	standard special provision
TMP	Traffic Management Plan
USACE	U.S. Army Corps of Engineers
EPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VMT	vehicle miles traveled
WPCP	Water Pollution Control Program
WPT	Western pond turtle

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) for the State Route (SR) 1 Bridge Rail Replacement Project (Project) and has prepared this Initial Study with Proposed Negative Declaration (IS/ND). Caltrans proposes to replace and upgrade the existing bridge railings to meet current Caltrans standards at various bridges on SR 1 in Marin County, California (Figures 1-1 through 1-6). The Project comprises four bridges:

1. Coyote Creek Bridge/Location 1 (Bridge No. 27-0018) at Post Mile (PM) 0.42
2. Eskoot Creek Bridge/Location 2 (Bridge No. 27-0077) at PM 12.37
3. Olema Creek Bridge South/Location 3 (Bridge No. 27-0020) at PM 22.81
4. Olema Creek Bridge North/Location 4 (Bridge No. 27-0021) at PM 22.96

In relation to Locations 3 and 4, the majority of Olema Creek runs parallel to SR 1 except for three places where the creek crosses under SR 1. Therefore, there are three bridges that cross over Olema Creek, and this Project focuses on the two northernmost bridges that span Olema Creek. For the purposes of this document, the two Olema Creek bridges will be referred to as Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4.

The Project footprint at each location encompasses the maximum extent of construction-related activities, including ground disturbance and staging areas, and is approximately 1.08 acres at Coyote Creek Bridge/Location 1, 0.27 acre at Eskoot Creek Bridge/Location 2, 0.52 acre at Olema Creek Bridge South/Location 3, and 0.46 acre at Olema Creek Bridge North/Location 4.

The Project would be funded by the State Highway Operation and Protection Program (SHOPP) under program code 201.112 (Bridge Rehabilitation and Reconstruction) for the 2019/2024 program period. SHOPP is California's "fix-it-first" program, which funds the repair and protection of the State Highway System, safety improvements, and some highway operational improvements. The Project total cost estimate, including capital and support costs, is approximately $14,681,000.

Caltrans is a recipient of Federal Highway Administration federal-aid highway funds. Recipients of federal funds are required to comply with various non-discrimination laws and regulations, including Title VI of the Civil Rights Act of 1964 (Title VI). Title VI forbids discrimination against anyone in the United States on the basis of race, color, or national origin, in the programs and activities of an agency receiving federal financial assistance. Caltrans' commitment to upholding the mandates of Title VI is summarized in the Non-Discrimination Policy Statement (Appendix B).

1.2 Purpose and Need

The purpose of the Project is to address bridge railing systems on four bridge structures in Marin County on SR 1.

The Project is needed to meet current Caltrans bridge railing safety standards. Safety standards for roadway design consider speed, transportation modes, surrounding land use, size of current vehicles using the road, and the required safe distances between motorized and non-motorized traffic. The four bridges range from 65 to 95 years old. Modern vehicles travel at higher speeds than older vehicles at the time the bridges were constructed. Therefore, the bridge railings at these four locations need to be upgraded to reduce the severity of collisions.

1.3 Existing Conditions

Within the Project corridor, SR 1 is a two-lane undivided highway bordered by open space, commercial, and residential land uses. Travel lanes at the four locations are approximately 10 to 11 feet wide. When other pedestrian facilities are not present, pedestrians are allowed on the shoulders of SR 1 and its bridges. There are separate existing parallel Class I pedestrian bridge facilities on both sides of Coyote Creek Bridge/Location 1. Eskoot Creek Bridge/Location 2 includes existing 5-foot-wide sidewalks on both sides of the bridge. Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/ Location 4 do not have existing pedestrian facilities adjacent to the structures. Eskoot Creek Bridge/Location 2 meets the standard width of 40-feet-wide for a two-lane bridge; however, Coyote Creek Bridge/Location 1, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4 do not meet this standard width.

Coyote Creek Bridge/Location 1 currently has 230-foot-long metal beam guardrail (MBGR). The northbound and southbound approaches include a 12.5-foot long MBGR with a 37.5-foot alternative flared terminal system. The northbound departure

is metal beam bridge railing with a Type C end cap, and the southbound departure is 55-foot MBGR with a 50.75-foot alternative in-line terminal system. The existing Coyote Creek Bridge/Location 1 cross section has two 11-foot-wide travel lanes with a 4-foot-wide southbound shoulder and a 2.5-foot-wide northbound shoulder. The length of the bridge is 102.75 feet, and the structure width is 32.5 feet.

Eskoot Creek Bridge/Location 2 currently has 50-foot-long concrete baluster barriers, with no northbound or southbound approach or departure terminal systems. The existing Eskoot Creek Bridge/Location 2 cross section has two 11-foot-wide travel lanes with 4-foot-wide shoulders on either side. The length of the bridge is 24.75 feet, and the structure width is 42.2 feet.

Olema Creek Bridge South /Location 3 and Olema Creek Bridge North/Location 4 currently have 112-foot-long concrete baluster barriers. The existing northbound and southbound approaches and departures at Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 are 25-foot MBGR with Type C end cap, and a 37.5-foot alternative flared terminal system. Their cross sections include two 10-foot-wide travel lanes and no shoulders. The lengths of the bridges are 54.14 feet, and the widths are 23.2 feet (Olema Creek Bridge South/Location 3), and 25.2 feet (Olema Creek Bridge North/Location 4). Table 1-1 summarizes the existing conditions at each bridge.

Table 1-1. Existing Conditions

Location	Structure	Bridge No.	Post Mile	Lane Width (feet)	Northbound Shoulder Width (feet)	Southbound Shoulder Width (feet)	Structure Length (feet)	Structure Width (feet)	Bridge Rail System	End-Treatment Type
1	Coyote Creek Bridge	27-0018	0.42	11	2.5	4	103	32.5	MBGR	Alternative Flared Terminal System
2	Eskoot Creek Bridge	27-0077	12.37	11	4	4	26	42.2	Concrete Baluster Barriers	None
3	Olema Creek Bridge – South	27-0020	22.81	10	0	0	54	23.2	Concrete Baluster Barriers	Alternative Flared Terminal System
4	Olema Creek Bridge – North	27-0021	22.96	10	0	0	54	25.2	Concrete Baluster Barriers	Alternative Flared Terminal System

Chapter 2 Project Description

2.1 Introduction

Caltrans proposes to replace and upgrade the bridge railings at Coyote Creek Bridge/Location 1, Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4 (Section 1.1) on SR 1 in Marin County, California. The Project would also include widening the bridges as follows:

- Coyote Creek Bridge/Location 1 approximately 2 feet on each side (for a total of approximately 4 feet)
- Eskoot Creek Bridge/Location 2 approximately 2 feet, 1 inch on each side (for a total of approximately 4 feet, 2 inches)
- Olema Creek Bridge South/Location 3 approximately 1 foot, 5 inches on each side (for a total of approximately 2 feet, 10 inches)
- Olema Creek Bridge North/Location 4 approximately 8 inches on each side (for a total of approximately 16 inches).

The Project would remove the MBGR, concrete baluster barriers, and alternative flared terminal systems. Midwest Guardrail System (MGS) would be installed at Coyote Creek Bridge/Location 1, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4, and alternative in-line terminal systems would be installed at the northbound and southbound approaches and departures at Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4. Alternative in-line terminal system would be installed at the southbound approach of Coyote Creek Bridge/Location 1. Vegetation control would be installed beneath the MGS at Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4. The Project footprint encompasses the maximum extent of construction-related activities, including ground disturbance, staging areas, and temporary construction easements (TCEs), and is approximately 1.08 acres at Coyote Creek Bridge/Location 1, 0.27 acre at Eskoot Creek Bridge/Location 2, 0.52 acre at Olema Creek Bridge South/Location 3, and 0.46 acre at Olema Creek Bridge North/Location 4.

2.2 Project Components

This section discusses Project components that would be constructed as part of the Project. Figures 1-3 through 1-6 in Appendix A show the Project components at Coyote Creek Bridge/Location 1, Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4, respectively. Table 2-1 summarizes the proposed conditions at each bridge.

2.2.1 Remove and Replace Bridge Rails

The Project would remove the MBGR (bridge rail) at Coyote Creek Bridge/Location 1 and replace it with California ST-75. The concrete baluster barriers (bridge rail) at Eskoot Creek Bridge/Location 2 would be removed and replaced with concrete barrier Type-85SW (Modified). The concrete baluster barriers (bridge rail) at Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 would be removed and replaced with California ST-75.

2.2.2 Install Falsework and Widen Bridges, Abutments, and Wingwalls

To upgrade the bridge rails, each bridge would be widened to accommodate the new standard bridge rail system on top of the bridge deck. Coyote Creek Bridge/Location 1 would be widened by 2 feet on each side; this would include widening of the bridge abutments (the walls that support the bridge structure) and modifying the existing wingwalls on either side of the bridge abutments. This work would require excavation at either end of the bridge. Falsework would be installed along the length of the bridge to construct the cast-in-place concrete for the bridge widening, followed by forms which would be constructed over the falsework, structural steel would be placed in the forms, and then concrete would be pumped into the forms. Eskoot Creek Bridge/Location 2 would be widened by 2 feet, 1 inch on each side. Olema Creek Bridge South/Location 3 would be widened by 1 foot, 5 inches on each side, and the wingwall at the southbound departure would be modified. Olema Creek Bridge North/Location 4 would be widened by 8 inches on each side, with similar construction methodology.

The widening is required to maintain existing lane widths while complying with the AASHTO MASH-compliant barriers, which are wider than the older bridge railings. The widening of these bridges will not widen the highway width, and the lane and shoulder widths will remain the same.

Table 2-1. Proposed Conditions

Location	Structure	Bridge No.	Post Mile	Structure Width (feet)	Bridge Rail System	End-Treatment Type
1	Coyote Creek Bridge	27-0018	0.42	36.5	California ST-75	Alternative In-Line Terminal System and Crash Cushion
2	Eskoot Creek Bridge	27-0077	12.37	46.2	Concrete Barrier Type 85SW (Modified)	None
3	Olema Creek Bridge	27-0020	22.81	26	California ST-75	Alternative In-Line Terminal System
4	Olema Creek Bridge	27-0021	22.96	26.5	California ST-75	Alternative In-Line Terminal System

2.2.3 Replace Sidewalks

Eskoot Creek Bridge/Location 2 has existing 5-foot-wide sidewalks on both sides of the bridge. The Project proposes to remove and reconstruct the sidewalks to accommodate the bridge railing upgrade and bridge widening while maintaining pedestrian access. The proposed sidewalks would be widened to 6 feet. The existing asphalt concrete walkway ramps at the northeast and southwest approaches to the bridge sidewalks would be reconstructed using concrete, and a new concrete walkway ramp would be constructed at the southeast approach of the bridge. The ramps would be designed to meet the Americans with Disabilities Act (ADA) requirements. The northwest bridge abutment and northerly bridge sidewalk are immediately adjacent to the Stinson Beach Fire Station driveway; therefore, the sidewalk would be reconstructed to include a ramp to conform to the existing driveway elevation at the bridge abutment.

2.2.4 Remove Alternative Flared Terminal Systems and Install Alternative In-Line Terminal Systems

The Project would remove the alternative flared terminal systems at the northbound and southbound approaches at Coyote Creek Bridge/Location 1 and the northbound and southbound approaches and departures at Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4. The Project would install alternative in-line terminal systems at the southbound approach at Coyote Creek Bridge/Location 1, and at the northbound and southbound approaches and departures at Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4.

2.2.5 Install Vegetation Control

Per the *Final Marin State Route 1 Repair Guidelines* (Caltrans 2015), vegetation control at Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 would consist of a non-pavement treatment, such as gravel.

2.3 Construction Methodologies

This section discusses the anticipated methodology for construction staging, schedule, construction-related equipment, utilities, and right-of-way (ROW) for the Project.

2.3.1 Construction Staging

Prior to the beginning of ground-disturbing activities, the Project would develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72

hours. Additionally, construction area signs, environmentally sensitive area (ESA) fencing, and construction site erosion control and water pollution control best management practices (BMPs) would be installed prior to the beginning of ground-disturbing activities. The existing utility attached to the Coyote Creek Bridge/Location 1 bridge deck is anticipated to be permanently relocated within the new barrier. The existing 6-inch water line along the southern edge of the Eskoot Creek Bridge/Location 2 bridge deck would be permanently relocated back onto the bridge deck after the widening. Temporary utility relocation plans would be developed during the Project design phase. All construction activities are expected to be contained to the existing bridge decks, highway shoulder, and surrounding roadside habitat. No work will occur within the creek channels. At Coyote Creek Bridge/Location 1, a gravel bag berm would be placed underneath the bridge outside of the mean high-water line to protect the work area and construction activities near the abutments on both the northbound and southbound sides of the bridge.

ESA fencing would delineate the limits of the work area and protect vegetation and trees outside the work area from construction-related activities. Temporary debris catchment systems would be installed beneath the bridges to contain and prevent demolition and construction-related debris from entering Coyote Creek, Eskoot Creek, and Olema Creek. To maintain the use of SR 1 for the traveling public, the bridge railings would be upgraded one lane at a time. One-way alternating traffic control would keep one lane open to the traveling public in both directions (Figures 2-1 through 2-4). Temporary traffic signals would stop the traveling public at either end of the bridge approach sections. In addition to the one-way alternating traffic control, detour routes at Coyote Creek Bridge/Location 1 and Eskoot Creek Bridge/Location 2 would be provided for the traveling public as well. Detour routes are explained in Section 3.3.17.

The Project is anticipated to be constructed in three stages. The northbound side would be completed in the first stage and includes: closing the northbound lane, restriping for temporary one-way alternating traffic control, installing temporary barrier systems along the centerline of SR 1, installing temporary crash cushions and temporary traffic signals along the approach sections. Then vegetation would be cleared where applicable, the bridge would be widened, the bridge rails and end treatments would be upgraded, and vegetation control would be installed. At Coyote Creek Bridge/Location 1, the abutments would be widened and the wingwalls would be modified. The northbound lane then would be reopened, and the southbound lane closed.

This construction methodology then would be repeated for the second stage of construction to complete the southbound side of the bridges. In addition, the second stage would consist of modifying the wingwall at the southbound departure of Olema Creek Bridge South/Location 3. The southbound lane then would be reopened.

The third stage would include removing BMPs, ESA fencing, the temporary debris-catchment system, the gravel bag berm at Coyote Creek Bridge/Location 1, and construction area signs; restriping; removing temporary barrier systems along the centerline of SR 1, temporary crash cushions, and temporary traffic signals along the approach sections.

2.3.2 Construction Schedule

Construction is anticipated to take approximately 19 months, or two construction seasons, to complete. The Project is anticipated to require approximately 180 working days and occur between December 2024 and August 2026.

Construction is anticipated to require approximately 22 nights of nightwork which will include: restriping for temporary one-way alternating traffic control; installing temporary barrier systems and temporary crash cushions along the centerline of SR 1; removing the MBGR, and installing MGS and alternative in-line terminal systems. Otherwise, construction-related activities would be limited to daytime hours.

2.3.3 Staging Areas

Staging areas would be established within the lane closed to traffic (within Caltrans ROW) for the overnight storage of construction-related equipment and materials. Coyote Creek Bridge/Location 1 would have two additional staging areas, one located west of Tennessee Valley Road and the other located east of Tennessee Valley Road (Figure 1-3). Eskoot Creek Bridge/Location 2 would have an additional staging area located east of the northbound lane at PM 12, approximately 0.5-mile south of Eskoot Creek Bridge/Location 2, and Olema Creek Bridge North/Location 4 would have an additional staging area located west of the southbound lane (Figures 1-3 and 1-6, respectively). The staging areas are not anticipated to require the removal of vegetation.

2.3.4 Construction Equipment

Construction-related equipment may include, but is not limited to, a utility truck, water truck, concrete truck, dump truck, striping truck, street sweeper, pavement cutter, jack hammer, backhoe, excavator, crane, air compressor, pile driver, asphalt paver, portable power generator, and scaffolding.

2.3.5 Utilities

Utility providers along the Project corridor include Pacific Gas and Electric (PG&E), AT&T, and North Marin Water District. Temporary utility relocation plans would be developed during the Project design phase.

A 2.5-inch galvanized iron pipe conduit is attached to the southern edge of Coyote Creek Bridge/Location 1. This utility conduit is anticipated to be permanently relocated within the new barrier. A 2-inch plastic conduit carrying a communication cable is on the face of the south abutment just below the soffit of Coyote Creek Bridge/Location 1. This utility conduit would need to be protected in place during construction of the bridge railing and potentially relocated. For the construction of the bridge rails at Eskoot Creek Bridge/Location 2, it is anticipated that an existing 6-inch water line along the southern edge of the deck would need to be permanently relocated to accommodate the proposed widening. Additionally, at Eskoot Creek Bridge/Location 2, there is an existing 4-inch high-pressure water line that is attached to the bridge deck and runs across the width of the bridge. This water line is anticipated to be permanently relocated as well.

Utility lines are present longitudinally on both sides of SR 1 at all four locations, including some that cross the highway near Coyote Creek Bridge/Location 1 and Eskoot Creek Bridge/Location 2. The utility poles supporting these lines may be jointly owned, and may carry electrical distribution, telephone, and cable television lines. If the utility poles or lines conflict with the proposed work, then they would be relocated or protected in place during construction.

Utility verification (potholing) would occur during the Project design phase to confirm the need for utility relocations, and if needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers (PG&E, AT&T, and North Marin Water District).

2.3.6 Right-of-Way

Construction-related activities, including staging areas, would occur within, as well as outside of, Caltrans ROW. The Project would require TCEs which are temporary ROW acquisitions for construction-related activities occurring outside Caltrans ROW (Table 2-2).

Table 2-2. Right of Way Acquisition

Location	Marin County Assessor Parcel Number	Easement Type	Approximate Size (acre)
Coyote Creek Bridge/Location 1	N/A Tennessee Valley Rd.	TCE	0.025
Coyote Creek Bridge/Location 1	052-061-10	TCE	0.013
Coyote Creek Bridge/Location 1	052-061-10	TCE	0.023
Coyote Creek Bridge/Location 1	052-061-10	TCE	0.006
Coyote Creek Bridge/Location 1	052-061-08	TCE	0.002
Coyote Creek Bridge/Location 1	N/A Tennessee Valley Rd	TCE	0.017
Coyote Creek Bridge/Location 1	052-062-05	TCE	0.008
Coyote Creek Bridge/Location 1	052-061-03	TCE	0.005
Olema Creek Bridge North/Location 4	166-240-22	TCE	0.089

Source: Marin County 2020

Note:

TCE = temporary construction easement

2.4 Permits, Licenses, Agreements, Certifications, and Approvals Required

The Project is anticipated to require the permits, licenses, agreements, certifications, and approvals summarized in Table 2-3.

Table 2-3. Permits, Licenses, Agreements, Certifications, and Approvals Required

Agency	Permits, Licenses, Agreements, Certifications, and/or Approval	Status
Marin County	Coastal Development Permit	Application to be submitted during the Project design phase
California Department of Fish and Wildlife	Section 1602 Lake and Streambed Alteration Agreement	Application to be submitted during the Project design phase
California Transportation Commission	Financial Approval	Targeting to receive by August 16, 2023
National Park Service	Special Use Permit	Application to be submitted during the Project design phase
Regional Water Quality Control Board	Section 401 Water Quality Certification	Application to be submitted during the Project design phase
San Francisco Bay Conservation and Development Commission	Permit	Application to be submitted during the Project design phase

Agency	Permits, Licenses, Agreements, Certifications, and/or Approval	Status
U.S. Army Corps of Engineers	Section 404 Permit	Application to be submitted during the Project design phase
U.S. Fish and Wildlife Service	Biological Opinion	Targeting to receive during Project design phase

Chapter 3 California Environmental Quality Act Evaluation

The following discussions evaluate potential environmental impacts of the Project related to the CEQA checklist to comply with state CEQA Guidelines (Title 14 California Code of Regulations Division 6, Chapter 3, Section 15091). The analysis considers potential environmental impacts of the Project as discussed in Chapter 2.

3.1 Environmental Factors Potentially Affected

As part of the scoping and environmental analysis carried out for the Project, no impacts were identified for the following environmental factors: agriculture and forest resources, land use and planning, mineral resources, population and housing, recreation, and tribal cultural resources. The environmental factors checked in the following matrix would have less than significant impacts. Further analysis of these environmental factors is discussed in the subsections that follow.

X	Aesthetics		Agriculture and Forestry	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Energy
X	Geology/Soils	X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials
X	Hydrology/Water Quality		Land Use/Planning		Mineral Resources
X	Noise		Population/Housing	X	Public Services
	Recreation	X	Transportation		Tribal Cultural Resources
X	Utilities/Service Systems	X	Wildfire	X	Mandatory Findings of Significance

3.2 Determination

On the basis of this initial evaluation:

X	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project COULD have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature:	**Date:**
Maxwell Lammert	4/14/2023
Printed Name: Maxwell Lammert	**For:**

3.3 CEQA Environmental Checklist

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the Project. In many cases, background studies performed in connection with projects will indicate that there are no impacts to a particular resource. A “No Impact” answer in the “CEQA Determination” column of the impact summary tables at the beginning of each resource category section in this chapter reflects this determination. The words "significant" and "significance" used throughout this IS/ND are related to CEQA, not National Environmental Policy Act, impacts. The questions in each impact summary table are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project Features (PFs) are measures incorporated into Caltrans projects to reduce environmental impacts that can include both design components of the Project and standardized measures that are applied to most, if not all Caltrans projects, such as construction site BMPs and measures included in the Caltrans Standard Plans and Standard Specifications or as Standard Special Provisions, and are considered to be an integral part of the Project and have been considered prior to any significance determinations documented in this chapter. Avoidance and/or minimization measures (AMMs) are additional measures to avoid and/or minimize a project’s environmental impacts but are more specifically tailored to a given project’s particular impacts. The PFs and AMMs incorporated into the Project are described in this chapter and are compiled in Appendix C.

Sections 3.3.1 through 3.3.20 present the CEQA determinations under Appendix G of the CEQA Guidelines. The CEQA determinations depend on the level of potential environmental impact that would result from the Project. The level of significance determinations is defined as follows:

- No Impact: Indicates no physical environmental change from existing conditions.
- Less Than Significant Impact: Indicates the potential for an environmental impact that is not significant with or without the implementation of PFs/ AMMs.
- Less Than Significant Impact with Mitigation Incorporated: Indicates the potential for a significant environmental impact that would be mitigated with the implementation of mitigation measures (MMs) to a level of less than significant.
- Potentially Significant Impact: Indicates the potential for a significant and unavoidable environmental impact.

3.3.1 Aesthetics

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

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

CEQA Significance Determinations for Aesthetics

A Visual Impact Assessment was prepared by the Caltrans Office of Landscape Architecture (Caltrans 2022b). A summary of the findings is presented in the following sections.

The entirety of SR 1 in Marin County is listed as being eligible for designation as a State Scenic Highway. All four bridge locations are within the eligible Scenic Highway segment.

Coyote Creek Bridge/Location 1 in the City of Mill Valley is busy, with a traffic light within the Project footprint. Traffic can be extremely busy at rush hours, meaning motorists have ample time to view both the positive and negative elements of the visual landscape. A wooden trail elevated above marshland adjacent to Coyote Creek meets SR 1 within the Project footprint and is heavily used by pedestrians and bicyclists. Where the trail turns north, crossing the creek and running adjacent to the highway, it becomes further elevated, making the view even more expansive and important. The view includes Coyote Creek and marsh, nearby and distant developed but tree-clad hillsides, nearby business, and more distant largely undeveloped hillsides. Although highway traffic is heavy, it is not traveled at high speed and the location retains great scenic value in spite of the many elements introduced as part of the highway.

Eskoot Creek Bridge/Location 2 is near the point at which SR 1 enters the Town of Stinson Beach and traffic can be exceptionally busy during tourist season. The visual

environment is that of a small but busy seaside town, attractive but neither manicured nor bucolic. There are utility poles and overhead wires, and the Stinson Beach Fire Department building is immediately adjacent to the Project footprint on the northbound side of the highway. Heading north, the developed area of the town comes into view. The area is heavily planted, with more non-native than native landscape plantings. Algerian ivy covers many plants at the southwest side of the Project footprint, contributing to a feel of a benignly neglected landscape. Because the existing concrete barrier is very short in length and the view through its openings to an unnamed drainage is unimpressive, the age and type of bridge are only very minor factors in the landscape.

Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 are nearly identical. At this point, the highway is largely enclosed by surrounding native forest, with only a scattering of residences. Views are primarily limited to that of nearby forest and hillsides, with no extended views. Although Five Brooks Horse Camp is nearby, neither it nor any residences or other developments are visible from either Project footprint. Wooden utility poles and overhead wires are the only detractors from the quality of the landscape. Nearly all driveways that meet the highway close to each Project footprint are unpaved. The old concrete barriers, widely spaced concrete posts with narrow concrete beams, are attractive and exceptionally transparent, but the views through the barriers are essentially identical to the views seen immediately before and after highway users reach Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4.

Visual simulations of existing and proposed conditions at all four bridge locations were prepared by Caltrans (Figures 3.3.1-1 through 3.3.1-6). Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 have the same existing and proposed conditions.

Figure 3.3.1-1. Coyote Creek Bridge Existing Conditions Northbound View

Figure 3.3.1-2. Coyote Creek Bridge Proposed Conditions Northbound View

Figure 3.3.1-3. Eskoot Creek Bridge Existing Conditions Northbound View

Figure 3.3.1-4. Eskoot Creek Bridge Proposed Conditions Northbound View

Figure 3.3.1-5. Olema Creek Bridges Existing Conditions Northbound View

Figure 3.3.1-6. Olema Creek Bridges Proposed Conditions Northbound View

a and b) Less Than Significant Impact

The proposed Project is expected to result in permanent minor changes to the visual environment that cannot be avoided. This is based primarily on the increased visual weight of the proposed barriers, the change largely commensurate with the change in the surface area of railing. The new barriers will also lower the degree of visibility through and beyond the barriers as compared to the existing condition. Allowing for the changes described, upon completion of work the character of the highway will be unchanged and visual impacts would be less than significant.

The Project would not adversely affect any scenic resource identified as requiring special consideration such as a rock outcropping, important tree grouping, historic properties, or other resources, as defined by CEQA statutes or guidelines, or by Caltrans policy. Existing vistas will be unaltered. Project components would not affect the appearance of the highway corridor and would be visually consistent with the character of the corridor and surrounding area.

Upon completion of construction-related activities, the character of SR 1 would be unchanged and visual impacts would be less than substantial. The primary item of work, the replacement of bridge railing, will have only minor permanent negative visual impacts. Other items of work will have only negligible to minor visual impacts. With implementation of PF-AES-1through PF-AES-8, and AMM-AES-1 and AMM-AES-2, as presented at the end of this section, impacts to scenic resources in the Project corridor would be less than significant.

c) No Impact

The Project would not substantially degrade the existing visual character or quality of public views of Coyote Creek Bridge/Location 1, Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, or Olema Creek Bridge North/Location 4and their surroundings, nor conflict with applicable zoning and other regulations governing scenic quality.

d) Less Than Significant Impact

The Project would not result in new substantial light or glare that would adversely affect nighttime views. Construction-related lighting would be limited to the Project footprints, and light trespass to adjacent businesses, residences and to the traveling public would be minimized with the use of directional lighting, shielding, and other

measures as needed. With implementation of PF-AES-3, and PF-AES-8, presented at the end of this section, the impact would be less than significant.

PROJECT FEATURES

Caltrans would incorporate the following PFs into the Project to reduce potential impacts to visual resources:

- **PF-AES-1, Temporary Fencing:** Use temporary exclusion fencing to protect the roots and canopies of nearby trees from construction-related activities.
- **PF-AES-2, Construction Equipment and Materials Storage:** Construction equipment and materials would be stored in staging areas beyond the direct view of the traveling public and residential properties to the greatest extent feasible.
- **PF-AES-3, Nightwork:** For nightwork, limit construction lighting to the Project footprints for construction-related activities, and use directional lighting, shielding, and other measures as needed to minimize light trespass to adjacent businesses, residences and to the traveling public.
- **PF-AES-4, Vegetation Impacts and Protection:** Reduce impacts to vegetation to the greatest extent possible while allowing the Project to be implemented. Vegetation to remain would be protected from construction activities by temporary fencing when vegetation is close to construction-related activities.
- **PF-AES-5, Revegetate and Reseed Disturbed Areas:** Revegetate disturbed areas with commercially available, locally appropriate, native seed mix and apply erosion control seeding and similar measures to all areas of disturbance where they are beyond paved areas.
- **PF-AES-6, Tree Pruning:** Where the pruning of trees is required to accommodate construction operations, pruning must be under the supervision of a licensed arborist.
- **PF-AES-7, Construction Material Storage:** Construction materials and equipment would be stored in a staging area beyond direct view of the motoring public and residential properties to the greatest extent feasible.

- **PF-AES-8, Minimize Lighting Impacts:** For any night work, limit construction lighting to the Project footprint and use directional lighting and shielding to minimize light trespass to areas outside the Project footprint.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMMs into the Project to avoid and/or minimize potential impacts to visual resources:

- **AMM-AES-1, Selection of Staging Areas:** Ensure that the establishment of staging areas would not require the removal of anything but weedy non-native vegetation or cause the compaction of any tree roots.

- **AMM-AES-2, Selection of Materials:** In conjunction with the Office of Landscape Architecture, select materials and Project components appropriate for the visual character of the location and to maintain corridor consistency.

3.3.2 Agriculture and Forest Resources

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

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

CEQA Significance Determinations for Agriculture and Forest Resources

The Project is located along previously disturbed portions of SR 1 (ground-disturbing activities are not anticipated to occur in previously undisturbed areas), and the Project footprints are not located within farmland, forestland, or timberland (California Department of Conservation 2016 and 2019). There are no Williamson Act contracts within the Project footprints.

a, b, c, d, and e) No Impact

The Project would not affect agricultural land and would not convert Farmland to a non-agricultural use. The Project would not affect areas under a Williamson Act contract. The Project would not conflict with existing zoning for forest land or timberland, or convert forest land to non-forest use land, as there are no forest lands or timberlands within the Project footprints. The Project would not involve other changes

in the existing environment that would result in conversion of forest or agricultural land; therefore, there would be no impact.

3.3.3 Air Quality

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR AIR QUALITY

The Project is located in Marin County within the San Francisco Bay Area Air Basin (Basin) under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Marin County is designated as nonattainment for ozone (O_3) and particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers ($PM_{2.5}$) under federal air quality standards (EPA 2022), and nonattainment for ozone, $PM_{2.5}$, and particulate matter with aerodynamic diameter equal to or less than 10 micrometers (PM_{10}) under California air quality standards (CARB 2019). The area is in attainment or unclassified for all other criteria pollutants.

a) No Impact

The Project would generate temporary construction emissions which would comply with state and local regulations and policies. Emission reduction measures would be implemented as discussed under PF-AQ-1 through PF-AQ-3, presented at the end of this section, to reduce construction emissions. The Project would not affect vehicle operation on SR 1 or nearby roadways when construction is complete. Long-term emission increases and adverse impacts from the Project are not anticipated. Therefore, the Project would not conflict with the region's air quality plan. There would be no impact.

b, c, and d) Less Than Significant Impact

The bridge rail upgrades would not alter characteristics of SR 1 and local roadways, increase SR 1 transportation capacity, or change the horizontal or vertical alignments of SR 1. No long-term impacts to air quality would occur.

Construction-generated air pollutants are expected to be short term and include emissions resulting from material processing by onsite construction-related equipment, workers commuting to and from the Project, and traffic delays caused by construction. The emissions would be produced at different rates throughout the Project depending on the construction-related activities occurring in the three stages of construction. Potential impacts to air quality, including emissions of air pollutants, odors affecting nearby sensitive receptors, and exposure of sensitive receptors to pollutants, would be less than significant based on the temporary nature of the Project construction-related activities.

During construction, the Project would comply with Caltrans Standard Specification 14-9, Air Quality, which requires compliance with applicable air-pollution control rules, regulations, ordinances, and statutes. In addition, the Project would implement construction site BMPs, and PF-AQ-1 through PF-AQ-3, to further reduce air quality impacts.

The Project would have no long-term impacts on air quality and temporary construction-related impacts would be less than significant.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to air quality:

- **PF-AQ-1, Dust Control Measures:** Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 1 affected by construction traffic, and covering soils or materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.

- **PF-AQ-2, Construction Vehicles and Equipment:** Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.

- **PF-AQ-3, Limit Idling:** Limit idling times either by shutting construction-related equipment off when not in use or reducing the maximum idling time to 5 minutes.

3.3.4 Biological Resources

Would the project:

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

CEQA Significance Determinations for Biological Resources

The Caltrans Office of Biological Sciences and Permits prepared a Natural Environment Study (NES) to evaluate the effects of the Project on biological resources, including sensitive plants and wildlife species (Caltrans 2023c). A summary of the findings is presented in this section.

The Biological Study Area (BSA), which is defined as the entire area of potential direct and indirect Project impacts, is approximately 4.28 acres and includes the four individual bridge Project footprints and a 50-foot survey buffer surrounding the bridge decks. The BSA consists of the current highway prism and bridge decks, the proposed rail installation areas and bridge widening, portions of each bridge approach, waters of the United States (U.S.), and surrounding land cover.

Each bridge location has an independent Project footprint and BSA that encompasses approximately 1.20 acres and 1.66 acres at Coyote Creek Bridge/Location 1, 0.46 acre and 0.72 acre at Eskoot Creek Bridge/Location 2, 0.46 acre and 0.98 acre at Olema Creek Bridge South/Location 3, and 0.48 acre and 0.92 acre at Olema Creek Bridge North/Location 4, respectively.

The area outside the BSA, but adjacent to the Project footprint, was assessed using literature, aerial images, satellite imagery, and database searches to identify potential wildlife dispersal corridors.

A regional list of special-status wildlife and plant species was compiled using databases to evaluate the potential impacts that could occur to sensitive biological resources as a result of the Project. The database search included the California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife [CDFW] 2022a), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation Database (USFWS 2022), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2022), and the National Marine Fisheries Service (NMFS) database (NMFS 2022). The special-status wildlife and plant species on the regional lists were evaluated to determine their potential to occur within the BSA.

Additionally, various field studies were conducted within the BSA to assess existing natural resources. Field studies used in the preparation of the NES include:

- Biological reconnaissance-level surveys and habitat assessments
- Aquatic resource delineation
- Fish passage assessment
- Vegetation characterization and rare plant habitat assessment
- Protocol-level rare plant surveys
- Tree survey

a) <u>Less Than Significant Impact</u>

With implementation of PFs and AMMs described at the end of this section, the Project would have a less-than-significant impact, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW, USFWS, or NMFS.

Special-status species that are potentially present within or adjacent to the BSA are discussed in the following sections.

Plants

The potential for special-status plant species to occur in the BSA was assessed based on the vegetation types present, the degree of disturbance, the results of the database queries, and whether suitable habitat for each special-status plant species was observed within the BSA. Protocol-level rare plant surveys were conducted on April 1, May 4, and July 25, 2022. One special-status plant species was observed and documented within the BSA during rare plant surveys: Point Reyes salty bird's-beak (*Chloropyron maritimum* ssp. *palustre*, List 1B.2). No federally listed or state-listed plant species were observed during the surveys.

Implementation of PF-BIO-2, PF-BIO-3, PF-BIO-9, and AMM-BIO-1 through AMM-BIO-3 would reduce, avoid, or minimize impacts to special-status plant species and their habitat. The impact would be less than significant.

Wildlife

California Red-Legged Frog

The California red-legged frog (CRLF; *Rana draytonii*) is a federally threatened species and a California Species of Special Concern (SSC). The BSA does not include any CRLF critical habitat or any designated recovery units. Suitable breeding habitat was not identified within the BSA; however, the BSA is within the current known range of CRLF and has the potential to provide suitable nonbreeding aquatic and upland habitat.

Coyote Creek Bridge/Location 1 is characterized as not having potential for CRLF to occur based on the saltwater habitat. Additionally, there are no known CRLF occurrences within 2 miles of the BSA and no known breeding locations within 1 mile of the BSA.

Eskoot Creek Bridge/Location 2 is characterized as having low potential for CRLF to occur based on marginal habitat being present onsite, no known nearby occurrence records, and no potential breeding areas in the vicinity of this location. No known records of CRLF are present within 2 miles of this bridge and no potential breeding locations were identified within 1 mile. Although the likelihood of CRLF occurring at Eskoot Creek Bridge is low, it should not be entirely ruled out.

There are numerous CNDDB occurrences within 2 miles of the Olema Creek bridges (Locations 3 and 4) and these locations are considered to have a high potential for

CRLF. Although no breeding habitat was identified in the BSA, there are numerous aquatic resources (wetlands, ponds, creeks, streams, and drainages) located within 2 miles of the Olema Creek bridges that may provide suitable breeding habitat for the species. The nearest CNDDB breeding occurrence is approximately 0.25 mile west of these locations near Five Brooks Ranch. In addition, there are numerous breeding and nonbreeding occurrences within 2 miles of the BSA along Olema Creek, both north and south of the BSA (CDFW 2022a). Therefore, Olema Creek South/Location 3 and Olema Creek North/Location 4 are considered to have a high potential for CRLF.

The Project would result in direct temporary and permanent impacts to suitable upland habitat for CRLF at both Olema Creek Bridges and potentially at Eskoot Creek. Temporary impacts to CRLF upland habitat would result from vegetation-clearing activities. Permanent impacts to CRLF upland habitat would result from installation of hardscape materials such as the transition rails, terminal systems and vegetation control. A total of 0.148 acre of upland habitat would be temporarily impacted and a total of 0.068 acre of upland habitat would be permanently impacted across the Eskoot and Olema Creek bridges. The Project would not result in direct temporary or permanent impacts to CRLF aquatic nonbreeding habitat because all construction activities would occur from the bridge deck or associated roadside vegetation; thus, there are no direct permanent or temporary impacts to CRLF aquatic habitat.

In addition, indirect temporary impacts to suitable CRLF habitat may result from temporary visual, vibratory, or noise disturbance associated with construction activities. These temporary impacts may cause CRLF to temporarily avoid the vicinity of the bridge locations during construction activities; however, upon construction completion, the habitat would be restored and is not expected to affect the long-term habitat suitability for CRLF.

Implementation of PF-BIO-1, PF-BIO-2, PF-BIO-6, PF-BIO-7, and PF-BIO-9, as well as AMM-BIO-4 and AMM-BIO-5, would reduce, avoid, or minimize impacts to CRLF and its habitat. The impact would be considered less than significant.

Northern Spotted Owl

The northern spotted owl (NSO; *Strix occidentalis caurina*) is a federally and state listed threatened species. Suitable NSO nesting habitat was not identified within the BSA; however, suitable roosting and foraging habitat was identified within and around the vicinity of the BSA. No NSO individuals or nests were observed during the NSO habitat assessment. The BSA is not located within designated NSO critical habitat.

The Coyote Creek and Eskoot Creek bridges (Locations 1 and 2) were determined to be unsuitable for NSO because of lack of contiguous suitable closed-canopy forested habitat and their proximity to residential and commercial development.

Forested habitat adjacent to the Olema Creek bridges (Locations 3 and 4) may be suitable for use by NSO for foraging and roosting. The riparian habitat surrounding Olema Creek connects to larger tracts of closed-canopy mixed conifer forests that could support NSO nesting and foraging and, therefore, there is potential for NSO to be present in the vicinity of the Olema Creek bridges throughout the year.

Based on the CNDDB/Spotted Owl Viewer, there are 3,533 positive detections of NSO with 89 activity centers (denoting the detection of a territorial pair) of NSO within 5 miles of the BSA (CDFW 2022b). The nearest NSO activity centers are located 0.40 mile east and 0.60 mile west of Olema Creek South/Location 3.

The Project would result in temporary impacts to suitable NSO habitat of up to 0.118 acre at Olema Creek Bridge South/Location 3 and 0.067 acre at Olema Creek Bridge North/Location 4 (total of 0.185 acre) to marginal forest habitat within the Project footprint. This would be limited to potential foraging and roosting habitat because suitable nesting habitat is not present within the Project footprint. Impacts would occur following potential vegetation removal, and tree trimming activities for construction access, railing replacements, and installation of vegetation control underneath the newly installed guardrail system. While some of these features are permanent (guardrails, transition railings, in-line terminal systems, and vegetation control), they would be at ground level and would not permanently impact the overstory (NSO habitat). Indirect impact could include those caused by visual and auditory disturbances resulting from construction activities; however, these impacts would be minimized by restricting construction activities to daytime hours wherever possible and thus avoiding the primarily nocturnal behavior of the owl.

Implementation of PF-BIO-2, PF-BIO-3, PF-BIO-7, PF-BIO-9, and PF-BIO-10, as well as AMM-BIO-6 and AMM-BIO-7, would reduce, avoid, or minimize impacts to NSO and its habitat. The impact would be considered less than significant.

California Giant Salamander

The California giant salamander (CGS; *Dicamptodon ensatus*) is listed as a California SSC. CGS has the potential to occur onsite in suitable habitat such as waters and mesic riparian and forested areas within the BSA.

Nine CNDDB occurrences are found within a 5-mile radius of Coyote Creek Bridge/Location 1; however, there are no CNDDB occurrences within 2 miles of this location and this species is not anticipated to be present at this location because of the salinity of the tidal waters, lack of suitable forested habitat, and the surrounding commercial and residential neighborhoods.

There are 12 CNDDB occurrences within a 5-mile radius of Eskoot Creek Bridge/Location 2, with the closest observation located approximately 0.9 mile southeast. There are eight CNDDB recorded occurrences of CGS within a 5-mile radius of the Olema Creek bridges, with the closest occurrence approximately 0.5 mile south of Olema Creek Bridge South/Location 3 within Olema Creek (CDFW 2022a). Based on this occurrence, it is accepted that CGS may be found throughout the Olema Creek corridor.

Potential impacts to CGS habitat are limited to terrestrial habitat and include 0.148 acre of temporary impacts resulting from vegetation removal for access to the bridges, guardrails, transition railings, and terminal systems. Permanent impacts to terrestrial habitat include 0.068 acre resulting from vegetation control (gravel) and placement of the transition railings and the terminal systems.

Potential impacts to CGS terrestrial habitat would be limited to Eskoot and Olema Creek bridges (Locations 2, 3, and 4). Suitable CGS habitat is not present at Coyote Creek Bridge and, therefore, there are no Project impacts at this location.

Impacts to CGS aquatic habitat are not anticipated because construction activities would take place from the bridge deck and within associated roadside vegetation.

Implementation of PF-BIO-1, PF-BIO-2, PF-BIO-6, PF-BIO-7, and PF-BIO-9 would reduce, avoid, or minimize impacts to CGS and their habitat. The impact would be considered less than significant.

Western Pond Turtle

The western pond turtle (WPT; *Emys marmorata*) is listed as a California SSC. There is no WPT breeding habitat present within the BSA; however, aquatic habitat within and surrounding the BSA may provide suitable habitat for WPT.

CNDDB occurrences for WPT include several documented within 5 miles of the BSAs. There is one recorded occurrence within a 5-mile radius of Coyote Creek Bridge/Location 1, six occurrences within a 5-mile radius of Eskoot Creek

Bridge/Location 2, and two occurrences within a 5-mile radius of the Olema Creek locations (Locations 3 and 4). The nearest occurrence for WPT is 3 miles west and 4.2 miles south of Coyote Creek and Eskoot Creek bridges, respectively. The nearest occurrence to the Olema Creek bridges is approximately 5 miles north, where one WPT was observed basking in a pond surrounded by cattail vegetation.

Suitable WPT habitat corresponds closely to the habitat described previously for CRLF and, therefore, WPT could be present in the BSA. Potential Project impacts would be limited to terrestrial habitat and would include temporary impacts resulting from vegetation-clearing activities and permanent impacts resulting from installation of hardscape materials. A total of 0.148 acre of suitable terrestrial habitat would be temporarily impacted and a total of 0.068 acre of suitable terrestrial habitat would be permanently impacted. Following the completion of construction activities, temporarily disturbed areas would be appropriately revegetated to pre-Project conditions or better and no impacts are expected to the long-term habitat suitability for WPT should they occur in the Project footprint in the future.

Implementation of PF-BIO-1, PF-BIO-2, PF-BIO-6, PF-BIO-7, and PF-BIO-9 would reduce, avoid, or minimize impacts to WPT and its habitat. The impact would be considered less than significant.

Bat Species – Western Red Bat, Townsend's Big-Eared Bat, Pallid Bat

The western red bat (*Lasiurus blossevillii*), Townsend's big-eared bat (*Corynorhinus townsendii*), and the pallid bad (*Antrozous pallidus*) are all listed as California SSCs. A field survey was conducted to determine whether suitable bat roosts or habitat was present at or in the vicinity of each bridge BSA. During the bat habitat assessment, one myotis bat (likely Yuma myotis, *Myotis yumanensis*) was observed roosting at Olema Creek Bridge South/Location 3 within a bridge deck weep hole.

Potentially suitable western red bat foliage roost habitat in the form of dense foliage was observed at Eskoot Creek and Olema Creek bridges and may be occupied by foliage-roosting bats throughout the year. This species is unlikely to use bridge structures as roost habitat. However, surrounding tree habitat may provide suitable maternity and winter roosting habitat for western red bat.

Potentially suitable Townsend's big-eared bat roost habitat is marginal within the Project BSA and this species is unlikely to establish a colony at any of the bridge locations. The Project bridges provide little to no suitable open cavity day roost habitat, and large tree cavities were mostly absent from the Project footprint. Although

unlikely, the bridges do have marginally suitable Townsend's big-eared bat open cavity night roost habitat and may be used on occasion by bats moving through the area.

Potentially suitable pallid bat day and night crevice roost habitat was observed at Eskoot Creek and Olema Creek bridges. In addition, the pallid bat may occur in small numbers within suitable tree crevice roost habitat observed within and adjacent to the Project. Crevices observed along the bridge abutments, bridge weep holes, foliating bark, cracks, and crevices on trees within the Project area could provide suitable day roost habitat for the pallid bat.

Additionally, recorded CNDDB occurrences of all three bat species were present within 5 miles of the Project locations. Two Townsend's big-eared bats were recorded approximately 2.3 and 2.9 miles northwest of Coyote Creek Bridge/Location 1. One Townsend's big-eared bat occurrence is located approximately 3.5 miles northwest of Eskoot Creek Bridge/Location 2. Nine special-status bat species occurrences (4 Townsend's big-eared bat, 4 pallid bat, and 1 western red bat) were recorded within 5 miles of Olema Creek Bridges (Locations 3 and 4), with a pallid bat occurrence located at Olema Creek Bridge South/Location 3 (CFDW 2022a).

Potential Project impacts may include temporary loss of foraging habitat through vegetation removal. In addition, temporary impacts may include noise or visual disturbance that could impact potential roosting sites while construction is ongoing. The Project is not proposing tree removal or modification to any potential crevasses within the bridge structures, so no permanent impacts to bat habitat are anticipated.

Implementation of PF-BIO-2, PF-BIO-3, PF-BIO-7, PF-BIO-9, as well as AMM-BIO-8, would reduce, avoid, or minimize impacts to bat species and their habitat. The impact would be considered less than significant.

b) Less Than Significant Impact

Section 30107.5 of the California Coastal Act (CCA) defines environmentally sensitive natural communities as "any land in which plant or animal life or their habitats are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (for example, riparian and upland habitats, and essential fish habitat [EFH]). Section 30240(a) of the CCA calls for the protection of environmentally sensitive habitat areas (ESHAs) and states that "ESHAs shall be protected against any significant disruption of

habitat values, and only uses dependent on those resources shall be allowed within those areas."

ESHAs

Eskoot Creek Bridge/Location 2 is the only Project location that falls under the jurisdiction of the California Coastal Commission and Marin County Local Coastal Program. As categorized under the California Coastal Act and implemented by the Marin County Local Coastal Program, there are three general categories of ESHA (Marin County Community Development Agency 2019): Terrestrial, wetlands, and streams and riparian vegetation. Two types of ESHAs, as defined by the California Coastal Commission, occur within the Eskoot Creek BSA. These include terrestrial and stream and riparian vegetation ESHAs.

Terrestrial ESHAs within the Eskoot Creek BSA include White alder (*Alnus rhombifolia*) groves, California bay (*Umbellularia californica*) forest and woodlands, and Douglas-fir (*Pseudotoguga menziesii*) forest. A total of 0.092 acre of terrestrial ESHAs are present within the BSA. Potential impacts to terrestrial ESHAs include temporary impacts of 0.004 acre and permanent impacts of 0.003 acre to white alder groves. Impacts would result from vegetation clearing for access and bridge widening.

There is a total of 0.080 acre of aquatic resources and 0.046 acre of riparian habitat present within the BSA. All work activities are expected to be contained to the existing bridge deck and surrounding roadside habitat, so there are no anticipated impacts to aquatic features. Potential impacts to riparian areas include temporary impacts of 0.001 acre and permanent impacts of 0.001 acre resulting from vegetation clearing for access and bridge widening.

Implementation of PF-BIO-3, PF-BIO-7, PF-BIO-8, and PF-BIO-9 would reduce, avoid, or minimize impacts to ESHAs. The impact would be considered less than significant.

Essential Fish Habitat

The Project is located within the San Rafael, Bolinas, and Double Point U.S. Geological Survey 7.5-minute topographic quadrangle, which has designated EFH (i.e., an environmentally sensitive natural community) for anadromous species (NNMFS 2022). Of the four major components of freshwater EFH, all creeks within the Project limits have the potential to support juvenile rearing, juvenile migration corridors, and adult migration corridors and holding habitat. Suitable spawning and incubation habitat

may be present within Olema Creek but are not present within the Project limits at Coyote Creek and Eskoot Creek.

Bridge widening activities would not result in a permanent impact to EFH. All construction activities at each bridge location would be contained to the existing bridge deck, highway shoulder, or surrounding roadside habitat. No work activities will occur within the creeks. Temporary impacts to EFH may result from vegetation clearing activities; however, following completion of Project construction, appropriate revegetation measures will take place. Thus, no permanent, adverse modifications to EFH would result from the Project.

Although the Project is located within designated EFH, with implementation of PF-BIO-3, PF-BIO-7, and PF-BIO-9, there would be no adverse modifications to EFH, therefore impacts would be less than significant.

c) No Impact

The Project would have a less than significant impact on federally protected wetlands, as defined by Section 404 of the Clean Water Act (CWA), including, but not limited to, marsh, vernal pool, and coastal areas, through direct removal, filling, hydrological interruption, or other means with AMMs incorporated. The Project also would have a less-than-significant impact on state protected wetlands, defined under Section 30121 of the CCA as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens," with AMMs incorporated.

A U.S. Army Corps of Engineers (USACE) aquatic resource delineation was conducted for federally protected wetlands and other waters as defined by Section 404 of the CWA. There was no evidence of wetlands features, as defined by Section 404 of the CWA, within the BSA; however, a total of approximately 0.273 acre of potentially jurisdictional estuarine intertidal waters and less than approximately 0.419 acre of potentially jurisdictional other waters were mapped within the BSA. A California Coastal Commission aquatic resources delineation report would be prepared, and verified by the California Coastal Commission, during the permitting process.

All construction activities at each bridge location would be contained to the existing bridge deck, highway shoulder, or surrounding roadside habitat. No work activities will occur within the bed or banks of the creeks and a debris catchment system will be

placed prior to the start of construction to protect the creeks from debris that result from demolition or construction activities. With implementation of PFs and AMMs, there are no direct impacts associated to jurisdictional waterways.

Indirect temporary impacts to jurisdictional aquatic features may occur from increased sedimentation and erosion from vegetation removal or general construction activities. These indirect impacts would be minimized with implementation of PFs and AMMs described at the end of this section.

With implementation of PF-BIO-1 and PF-BIO-3, the Project is anticipating no impacts to aquatic features.

d) No Impact

A fish passage assessment was completed in December of 2021 which concluded that the bridge locations for this Project were found not to be a structural passage barrier to anadromous salmonids.

The Project would not construct any new permanent barriers to wildlife movement, or otherwise interfere with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. There would be no impact.

e) No Impact

The Project would not conflict with any local policies or ordinances protecting biological resources.

The Marin Countywide Plan (Marin County 2007) is the comprehensive, long-range general plan that guides land use and development in the unincorporated areas of Marin County. The Marin Countywide Plan states, “restore damaged portions of Stream Conservation Areas [i.e., riparian areas] to their natural state wherever possible, and reestablish as quickly as possible any herbaceous and woody vegetation that must be removed within a Stream Conservation Area, replicating the structure and species composition of indigenous native riparian vegetation.” Implementation of PF-BIO-9 is consistent with the Marin Countywide Plan. Therefore, the Project would not conflict with the Marin Countywide Plan to restore damaged portions of Stream Conservation Areas. There would be no impact.

f) No Impact

The Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to biological resources:

- **PF-BIO-1, Seasonal Avoidance:** The Project will develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.

- **PF-BIO-2, Wildlife Exclusion Fencing:** Before starting construction, at the discretion of the Caltrans biologist, wildlife exclusion fencing (WEF) may be installed along the Project footprint perimeter in the areas where wildlife could enter the Project site. The final Project plans will depict the locations where WEF will be installed, if needed, and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place at each location until work at that location is complete and will be regularly inspected for stranded animals and fully maintained daily. The WEF will be removed following completion of construction activities.

- **PF-BIO-3, Stormwater Best Management Practices:** In accordance with RWQCB requirements, a Water Pollution Control Plan (WPCP) will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:

    a. Prohibit discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.

    b. Maintain equipment to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents. Hazardous materials such as fuels, oils, and solvents will be

stored in manufacturer-approved containers in a designated location that is at least 50 feet from aquatic habitats.

c. Service vehicles and construction equipment, including fueling, cleaning, and maintenance, at least 50 feet from aquatic habitat, unless separated by a topographic or engineered drainage barrier.

d. Collect and dispose of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.

e. Maintain spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment

f. Use water trucks and dust palliatives to control dust in unvegetated areas and cover temporary stockpiles when weather conditions require.

g. Protect graded and designated staging areas from erosion using an appropriate combination of approved erosion control items or methods, in accordance with the WPCP, and as stated in the Caltrans Standard Specifications Section 13, Water Pollution Control, and the *Caltrans WPCP Preparation Manual*,

- **PF-BIO-4, Construction Site Management Practices:** The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:

a. Enforce a speed limit of 15 miles per hour in the Project footprint in unpaved and paved areas to reduce dust and excessive soil disturbance.

b. Locate construction access, staging, storage, and parking areas within the Project footprint outside any designated ESA. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.

c. Certify, to the maximum extent practicable, borrow material is nontoxic and weed free.

d. Enclose food and food-related trash items in sealed trash containers and remove them from the site at the end of each day.

e. Prohibit pets from entering the Project footprint area during construction.

f. Prohibit firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

g. Maintain equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and develop a Spill Response Plan. Hazardous materials such as fuels, oils, and solvents will be stored in industry or manufacturer- approved containers in a designated location that is at least 50 feet from aquatic habitats.

- **PF-BIO-5, Nighttime Restrictions/Lighting:** Night work would be limited wherever possible. If night work must be performed, lighting will be directed toward the highway to the greatest extent practicable to avoid exposing nocturnal wildlife and their habitats to excessive glare.

- **PF-BIO-6, Avoidance of Entrapment:** To prevent inadvertent entrapment of animals during construction, excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day using plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the BSA overnight will be inspected before they are subsequently moved, capped, or buried.

- **PF-BIO-7, Vegetation Removal:** Vegetation that is within the cut and fill line or growing in locations where permanent structures will be placed will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes, and excavators. If clearing and grubbing occurs during the nesting season (typically between February 1 and September 30), the Caltrans biological monitor will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance requirements of the MBTA and California Fish and Game Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be removed from the Project footprint to prevent attracting animals to the Project site.

- **PF-BIO-8, Preconstruction Nesting Bird Surveys and Nest Avoidance:** During the nesting season (typically between February 1 through September 30), preconstruction surveys for nesting birds will be conducted by a Caltrans 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 non-game bird nests, a 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. To minimize and avoid take of migratory birds, their nests, and their young, vegetation and tree trimming will be conducted outside of the nesting season, prior to construction when feasible. This work will be limited to vegetation and trees that are within the Project footprint. Additional nesting surveys will be required if work must occur during the nesting season.

- **PF-BIO-9, Replant, Reseed, and Restore Disturbed Areas:** Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with locally appropriate, commercially available native grasses and shrubs species to stabilize and prevent erosion. Where disturbance includes the removal of woody shrubs, native species will be replanted, based on the local species composition.

- **PF-BIO-10, Reduce Spread of Invasive Species:** To reduce the spread of invasive, non-native plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and 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 of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing locally appropriate, commercially available native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project will be covered to the greatest extent practicable with heavy black plastic solarization material until the end of the Project.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following standard AMMs to avoid and/or minimize potential impacts to biological resources:

- **AMM-BIO-1, Restoration (Replant, Reseed, and Restore Disturbed Areas):** The Project has been designed to avoid and minimize permanent and temporary impacts to terrestrial ESHAs to the maximum degree practicable. Restoration of temporarily disturbed areas, including ESHAs, will be accomplished through onsite revegetation. Restoration of temporary impact areas will occur within the same season they are disturbed so that the duration of disturbance will not exceed 12 months. Restoration of temporarily disturbed areas will be performed at a 1:1 ratio. At the end of each construction season, exposed slopes and bare ground will be reseeded with locally appropriate, commercially available native grasses and shrub species to stabilize and prevent erosion.

- **AMM-BIO-2, Avoid Rare Plants:** The Project footprint may be adjusted where feasible, to completely or partially avoid affecting special-status plant species.

- **AMM-BIO-3, Minimize Disturbance to Rare Plants:** If complete or partial avoidance is not feasible, other minimization measures may be implemented to reduce the severity of the impact to the special-status plant species. These actions may include one or a combination of the following: (1) collection of special-status plant seeds, bulbs, other propagules, or topsoil prior to construction for use in future onsite restoration or enhancement actions; (2) restoration or enhancement of suitable special-status plant habitat onsite; or (3) restoration or enhancement of suitable special-status plant habitat offsite.

- **AMM-BIO-4, Preconstruction CRLF Surveys:** Preconstruction surveys for CRLF will be conducted by an agency-approved biologist no more than 20 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. Suitable nonbreeding aquatic and upland habitat within the Project footprint (Figure 4-3), including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows, will be inspected. Fossorial mammal burrows will be inspected for signs of frog usage, to the greatest extent practicable. If it is determined that a burrow may be occupied by CRLF, USFWS will be contacted and work within the vicinity of the burrow will be stopped per agency permits.

- **AMM-BIO-5, Protocol for Species Relocation and Reporting:** If CRLF is encountered in the immediate work area, the following procedures will be followed:

    - The Resident Engineer and agency-approved biologist will be informed immediately. If a frog gains access to a construction zone, work will be halted immediately within 50 feet until the animal leaves the construction zone. The capture and removal of CRLF may only be performed following consultation with USFWS, and captured CRLF will be released within appropriate habitat outside of the construction area within the creek riparian corridor. The release habitat will be determined by USFWS.

    - The agency-approved biologist will have the authority to halt work through coordination with the Resident Engineer in the event that a CRLF is discovered within the Project footprint. The Resident Engineer will ensure construction activities remain suspended in any construction area where the agency-approved biologist has determined that a potential take of CRLF could occur. Work will resume when the animal leaves the site voluntarily or is removed following agency consultation, or if it is determined that the CRLF is not being harassed by construction activities. If take occurs, the agency-approved biologist will notify the USFWS contact by telephone and electronic mail within 1 working day.

    - The agency-approved biologist 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).

- **AMM-BIO-6, Focused NSO Surveys:** NSO-focused surveys shall be conducted by an agency-approved biologist at both of the Olema Creek Bridge Project areas as they are within 0.25 mile of suitable NSO habitat. If surveys are not completed, work at these locations should be restricted to between August 1 and February 28. For Project work within 0.25 mile of a known nest site or nesting habitat that cannot be scheduled outside of the nesting season and where the 0.25-mile buffers cannot be maintained, reduced buffers should be implemented based on guidance in *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California* (USFWS 2006).

- **AMM-BIO-7, Auditory or Visual Disturbance:** If NSO-focused surveys detect an active nest, no proposed activity generating sound levels 20 or more decibels (dB)

above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup alarms) may occur within 0.25 mile of suitable NSO nesting and roosting during the breeding season (February 1 to August 31). In addition, no human activities will occur within a visual line-of-sight of 40 meters or less from any known nest locations within the Project footprint. These above-ambient sound level restrictions will be lifted after July 31, after which the USWFS considers the above-ambient sound levels as having "no effect" on NSO and dependent young.

- **AMM-BIO-8, Preconstruction Surveys for Bats:** Prior to the start of work, including vegetation removal, a preconstruction bat survey will be performed by an agency-approved biologist. If bats are observed, a bat protection plan should be developed by an agency-approved biologist to minimize potential impacts to roosting bats. Any bats observed in the Project area should be allowed to leave on their own.

3.3.5 Cultural Resources

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

Caltrans District 4's cultural resources staff, who are Professionally Qualified Staff (PQS) according to the Secretary of the Interior's qualifications, conducted cultural resources studies in compliance with the *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA) (FHWA 2014) and prepared a *Section 106 Closeout Memo for the Bridge Rail Replacement Project at Postmiles 0.42, 12.37, 22.81, 22.96 on State Route (SR) 1, in Marin County* (Caltrans 2022a).

Caltrans PQS members reviewed the Caltrans Cultural Resource Database, as-built plans, aerial photographs, and maps in accordance with the PA. According to the statewide bridge survey, updated in 2015, all four bridges have a National Register of Historic Places (NRHP) status designation of Category 5 – Ineligible for NRHP Listing.

In accordance with Stipulation VIII.A of the PA, the area of potential effects (APE) was established in consultation with Caltrans PQS on January 7, 2022. The archaeological APE includes the Project footprint, all areas where construction-related activities will occur, staging areas, temporary construction easements, and Caltrans ROW surrounding the bridges. The architectural APE also includes seven additional parcels and the entirety of the Olema Valley Dairy Ranches Historic District (Caltrans 2022a).

Caltrans PQS requested a search of the Sacred Lands File and Native American Contact list from the Native American Heritage Commission (NAHC) on March 23, 2021. The NAHC responded on April 5, 2021, and indicated the results of the Sacred Lands File

were negative and provided the requested contact list. Caltrans sent consultation letters on April 22, 2021, to the Chairperson of the Federated Indians of Graton Rancheria (FIGR). No response was received, and a follow-up email was sent to FIGR Tribal Historic Preservation Officer on October 21, 2021. Caltrans has received no responses as of January 21, 2022 (Caltrans 2022a).

On December 13, 2021, Caltrans PQS also sent consultation letters to the General Superintendent of the National Park Service Golden Gate National Recreation Area (GGNRA) and to the Jack Mason Museum of West Marin History. Follow-up emails were sent to both parties on December 30, 2021. As of April 12, 2023, the GGNRA has not responded. On January 4, 2022, the Jack Mason Museum of West Marin History responded and stated the museum had no comments or concerns regarding the Project (Caltrans 2022a).

On April 28, 2021, Caltrans conducted an architectural history and archaeological pedestrian survey. No archaeological resources were identified within the project APE. One historic property, the Olema Valley Dairy Ranches Historic District, was identified in the APE. The historic district was listed on the NRHP in 2018, which makes it a historic resource under CEQA. No other cultural resources were identified (Caltrans 2022a).

Caltrans, pursuant to Stipulation IX.A and as applicable to Public Resources Code 5024 Memorandum of Understanding Stipulation IX.A.2, determined a finding of no historic properties affected is appropriate for the Project (Caltrans 2022a).

a and b) No Impact

Caltrans identified one cultural resource adjacent to Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4, the Olema Valley Dairy Ranches Historic District. This historic district is located between Bolinas and Point Reyes Station, California, and is comprised of 14,127 acres and includes 19 contributing ranches with a period of significance between 1856 and 1958 (Guth 2018; NPS 2018). The two bridges are not contributors to the historic district and there is no potential for the Project to impact the historic district's contributing resources or alter the integrity of the district. The historic district will continue to convey its historic significance. No archaeological resources were identified by Caltrans. Therefore, the Project will have no impact.

c) Less Than Significant Impact

California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. The procedures for the treatment of discovered human remains are contained in the California Health and Safety Code Sections 7050.5 and 7052, and the California Public Resources Code Section 5097.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all such activities within a 100-foot radius of the find will be halted immediately and the Project's designated representative will be notified. The contractor will immediately notify the Marin County coroner, Caltrans, and a qualified archaeologist. The coroner is required to examine the discovery of human remains within 48 hours of receiving notification of such a discovery on private or state lands (California Health and Safety Code Section 4052.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making the determination (California Health and Safety Code Section 7050.5[c]). The Project's designated representative will be responsible for acting upon notification of discovery of Native American human remains, as identified in detail in California Public Resources Code Section 5097.9. The Project's designated representative and the professional archaeologist will contact the Most Likely Descendent (MLD), as determined by the NAHC, regarding the remains. The MLD in cooperation with the property owner and Caltrans, will determine the ultimate disposition of the remains.

Implementation of AMM-CULT-1 and AMM-CULT-2, as discussed at the end of this section, would avoid and/or minimize the impact to a level of less than significant.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMMs to avoid and/or minimize impacts to cultural resources:

- **AMM-CULT-1, Cease Work:** Cease work if cultural resources are encountered during Project-related ground-disturbing activities, have a qualified archaeologist assess the significance of the resource, and implement appropriate avoidance or treatment measures.

  If buried cultural materials are encountered during construction, the need for archaeological and Native American monitoring during the remainder of the Project

would be reevaluated by Caltrans and a qualified archaeologist as part of a treatment measure determination. The archaeologist would consult with appropriate Native American representatives in determining suitable treatment for unearthed cultural resources if the resources are Native American in nature.

- **AMM-CULT-2, Stop Work:** Stop potentially damaging work if human remains are uncovered during construction, have a qualified archaeologist assess the significance of the find, and pursue appropriate management.

3.3.6 Energy

Would the Project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	Less Than Significant Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR ENERGY

An Energy Analysis Report was prepared by the Caltrans Office of Environmental Engineering (Caltrans 2021c). A summary of the findings is presented in the following sections.

a) Less Than Significant Impact

Activities that consume energy generate byproducts. Greenhouse gases (GHGs) are the most extensively studied byproducts of energy consumption because they are linked to climate change. To assess gasoline and diesel consumed by construction-related equipment and vehicles, the Road Construction Emissions Model (RCEM), version 9.0.0, provided by the Sacramento Metropolitan Air Quality Management District, was used to quantify carbon dioxide (CO_2) emissions. The U.S. Environmental Protection Agency's (EPA's) GHG equivalencies formulas were used to convert CO_2 to fuel volumes. It was assumed diesel would be used for all construction vehicles and equipment and gasoline will be used during workers' commutes (Caltrans 2021d). The Project is anticipated to consume approximately 37,391 gallons of diesel fuel and 2,161 gallons of gasoline during construction (Caltrans 2021c).

During construction, PF-ENERGY-1 and PF-ENERGY-2, as presented at the end of this section, would be implemented to improve energy efficiency of construction-related equipment. In addition, implementation of PF-AQ-2 and PF-AQ-3, as discussed in Section 3.3.3, would also improve energy efficiency and reduce energy consumption by Project construction.

Construction-related activities would be short term and would not increase SR 1 transportation capacity or otherwise alter long-term vehicle traffic, which have the potential to affect energy use. During Project operation, energy consumption would be limited to routine maintenance activities that are anticipated to be similar to existing

conditions. Therefore, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction and operation. The Project would have a less than significant impact.

b) No Impact

The purpose of the Project is to replace and upgrade the existing nonstandard bridge railings to meet current standards on four bridges in Marin County. By upgrading the existing nonstandard bridge railings to meet current standards, severity of collisions and maintenance needed to repair damages to highway structures caused by accidents and the associated energy consumption would be reduced.

The Project would not result in a change in traffic volumes, vehicle mix, or other factors that would cause an increase in energy consumption of the Project during operation. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with a state or local plan for renewable energy or energy efficiency.

As discussed previously, the Project would not conflict with the regional/statewide goals on renewable energy or energy efficiency. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to energy:

- **PF-ENERGY-1, Recycle Waste and Materials:** Recycle nonhazardous waste and excess construction materials offsite to reduce disposal, if feasible.
- **PF-ENERGY-2, Solar Energy:** Use solar energy as the energy source for construction-related equipment, such as, but not limited to, signal boards, if feasible.

3.3.7 Geology and Soils

Would the Project:

Question	CEQA Determination
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact
(ii) Strong seismic ground shaking?	Less Than Significant Impact
(iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
(iv) Landslides?	Less Than Significant Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

CEQA Significance Determinations for Geology and Soils

A Geologic, Seismic, and Paleontologic Analysis was prepared by the Caltrans Office of Geotechnical Design – West (Caltrans 2022c). A summary of the findings is presented in the following sections.

The Project is located within the central portion of the Coast Ranges Geomorphic Province of California. The dominant feature of the province is the San Andreas Fault, an approximately 800-mile-long fault zone that generally forms the dividing line between major tectonic plates, with the Pacific Plate situated west of the San Andreas Fault and the North American Plate situated east of the San Andreas Fault. An inferred trace of the North Coast section of the San Andreas Fault zone mapped within Tomales Bay lies 200 feet west of the Olema Creek bridges and approximately 2.5 and 8.5 miles northwest of the Eskoot and Coyote Creek bridges, respectively (Bryant 2002).

In general, the Coast ranges consist of complexly folded Mesozoic and Cenozoic sedimentary, metamorphic, and volcanic rock. Geologic units in the Project area can be characterized by bridge location as follows (Blake et al. 2000):

- Coyote Creek (Bridge No. 27-0018, PM 0.42):

  Underlain by artificial fill over Quaternary-aged marsh deposits (Qmf).

- Eskoot Creek (Bridge No. 27-0077, PM 12.37):

  Underlain by Mélange of the Franciscan Complex (fsr), a highly deformed rock complex of Mesozoic age (Blake et al. 2000). Franciscan mélange can be characterized by a tectonic mixture of variably sheared shale and sandstone with hard tectonic inclusions, blocks, and resistant masses of varying abundance and degree of shearing. Falls within Mineral Resource Zone (MRZ) 3.

- Olema Creek (Bridge No. 27-0020, PM 22.81):

  Underlain by Cretaceous-age sandstone and shale (Kfs).

- Olema Creek (Bridge No. 27-0021, PM 22.96):

  Underlain by Cretaceous-age sandstone and shale (Kfs).

Soils underlying the Project are mapped by the Natural Resources Conservation Service (NRCS). General information on these soils was obtained from NRCS web soils survey and official soil series descriptions (NRCS 2022). Soils are summarized as follows:

- Coyote Creek (Bridge No. 27-0018, PM 0.42):

  Underlain by Xerorthents-Urban land complex (map unit symbol 204).

- Eskoot Creek (Bridge No. 27-0077, PM 12.37):

  Underlain by Blucher-Cole complex (map unit 105) and Cronkhite-Barnabe complex (map units 116 and 117).

- Olema Creek (Bridge No. 27-0020, PM 22.81):

  Underlain by Blucher-Cole complex (map unit 105).

- Olema Creek (Bridge No. 27-0021, PM 22.96):

Underlain by Blucher-Cole complex (map unit 105).

a(i), (ii), (iii), (iv) and b) Less Than Significant Impact

The Project would be subject to strong ground shaking from nearby faults. However, with implementation of standard PFs and AMMs, as summarized in the following sections and included in Appendix C, the Project would have a less than significant impact to cause potential substantial adverse effects, including the risk of loss, injury, or death associated with geologic hazards. Within the Project, only Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 are located within an Alquist-Priolo Earthquake Zone of Required Investigation (California Department of Conservation 2022a and 2022b) and only Coyote Creek Bridge/Location 1 is mapped inside of the Tsunami Inundation Area (California Department of Conservation 2022c). Soils have the potential to be subject to liquefaction during a strong seismic event; however, Project components would not further add to the hazard.

The Project would require soil disturbance, which has the potential to result in erosion outside the Caltrans ROW. However, with implementation of PF-HYD-1, and PF-HYD-2, as presented in Section 3.3.10, and AMM-GEO-1, as presented at the end of this section, the Project would not result in increased seismic-related risk, substantial erosion, or loss of topsoil and the impact would be less than significant.

c, d, and e) No Impact

The Project is not mapped on an unstable geologic unit or soil and does not directly or indirectly increase the potential for surface rupture or strong ground shaking, or expose the public to increased risk of loss, injury, or death.

Soft soils (loam and clay soils) have the potential to be found at Coyote Creek Bridge/Location 1, Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4, but soils are not expected to be expansive or collapsible. No septic tanks or alternative wastewater delivery systems would be constructed or affected by the Project; therefore, no impact would occur.

f) No Impact

The underlying Franciscan mélange (fsr), marsh deposits (Qmf), and sandstone and shale (Kmf) do not lie on paleontologically sensitive units that have the potential to

contain fossils. Therefore, the Project is unlikely to expose fossils or significantly affect sensitive palaeontologic resources and the Project would have no impact.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMM into the Project to avoid and/or minimize potential impacts to geology and soil resources:

- **AMM-GEO-1, Site-Specific Geotechnical and Engineering Studies:** Site-specific geotechnical and engineering studies would be prepared during the Project design phase.

3.3.8 Greenhouse Gas Emissions

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR GREENHOUSE GAS EMISSIONS

A *Construction Greenhouse Gas Emissions Analysis* memorandum (Caltrans 2023d) was completed for the Project. This section summarizes the findings of this review.

a) Less Than Significant Impact

Construction-generated GHGs include emissions resulting from construction-related equipment, workers commuting to and from the Project, and traffic delays caused by construction of the Project. The emissions would be produced at different rates throughout the Project, depending on the construction-related activities occurring in the three phases of construction. CO_2 is a more important GHG pollutant because of its abundance when compared to other GHGs emitted from construction vehicles and equipment, including methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbon, and black carbon.

Construction-related GHG emissions were calculated using the RCEM, version 9.0.0. The estimated total amount of CO_2 produced from construction would be 436 tons. Table 3-1 summarizes the construction-related emissions, including the total carbon dioxide equivalent (CO_2e) emissions.

Table 3-1. Summary of Construction-Related GHG Emissions

Project Location: Marin County on SR 1, PM 0.42/22.96	CO_2 (tons)	CH_4 (tons)	N_2O (tons)	CO_2e[a] (metric tons)
Total Emissions	436	0.09	0.01	400.00

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

The Project would not increase SR 1 transportation capacity and, therefore, would not generate long-term GHG emissions.

The Project would implement Caltrans Standard Specifications such as complying with air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the Contract and the use of construction site BMPs to minimize or reduce short-term GHG emissions from construction activities. PF-AQ-2, PF-AQ-3, PF-ENERGY-1, and PF-ENERGY-2, as discussed in Sections 3.3.3 and 3.3.6, would reduce air emissions, energy consumption, and GHG emissions.

Therefore, the Project would not generate GHG emissions that would have a significant impact (long-term adverse effects) on the environment. The impacts would be less than significant.

b) No Impact

Plans and policies adopted for the purposes of reducing GHG emissions in California include multiple Senate and Assembly bills and Executive Orders. These policies establish GHG emissions reduction goals, set low-carbon fuel standards, support rapid commercialization of zero-emission vehicles, fund clean vehicle programs, and require climate adaptation planning. The Association of Bay Area Governments and the Metropolitan Transportation Commission (ABAG and MTC) developed *Plan Bay Area, a Regional Transportation Plan and Sustainable Communities Strategy for the Bay Area*, which includes strategies and policies for reducing GHG emissions (ABAG and MTC 2021).

The Project would comply with applicable state and regional GHG reduction policies and implement emission control measures to minimize or reduce GHG emissions. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project would not contribute to a long-term increase in GHG emissions. Therefore, the Project would not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing the emissions of GHG. There would be no impact.

3.3.9 Hazards and Hazardous Materials

Would the Project:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less Than Significant Impact

CEQA Significance Determinations for Hazards and Hazardous Materials

Near the Project footprints there are several receptors that could be sensitive to hazardous materials.

Coyote Creek Bridge/Location 1 has a Project footprint of 1.08 acres and the following receptors are within the vicinity of the Project footprint:

- A commercial building is located approximately 20 feet northeast of the northern extent of the Project footprint.
- A utility facility is located approximately 30 feet southwest of the southwestern portion of the Project footprint.
- A mobile fruit stand operates approximately 50 feet south of the southeast portion of the Project footprint.

- A religious facility is located along the east side of Tennessee Valley Road, approximately 270 feet south of the Project.
- The nearest residential property is approximately 320 feet southwest of the Project.

Eskoot Creek Bridge/Location 2 has a Project footprint of 0.27 acre and the following receptors are within the vicinity of the Project footprint:

- The Stinson Beach Fire Station is located adjacent to the Project footprint, to the north.
- A commercial property is located approximately 50 feet south of the Project boundary.
- The Stinson Beach Community Center, which hosts religious gatherings, is located approximately 120 feet north of the Project.
- The nearest residential property is located approximately 35 feet southeast of the Project.

Olema Creek Bridge South/Location 3 has a Project footprint of 0.52 acre and the following receptors are within the vicinity of the Project footprint:

- One residential property is located approximately 440 feet north of the Project, while another residential property is located approximately 480 feet southeast of the Project.
- The Olema Valley Trail, Five Brooks Trailhead, and Five Brooks Ranch are located approximately 700 feet southwest of the Project.

Olema Creek Bridge North/Location 4 has a Project footprint of 0.46 acre and the following receptors are within the vicinity of the Project footprint:

- A residential property is located approximately 75 feet east of the Project.
- The Olema Valley Trail, Five Brooks Trailhead, and Five Brooks Ranch are located approximately 800 feet southwest of the Project.

a and b) <u>Less Than Significant Impact</u>

Upgrading the bridge structures at each Project location would not involve the routine transport or use of hazardous materials when the Project becomes operational. During

construction, Caltrans' Standard Specifications would be implemented to prevent spills or leaks from construction-related equipment and from storage of fuels, lubricants, and solvents. All aspects of Project construction associated with removal, storage, transportation, and disposal of hazardous materials would be done in accordance with the appropriate California Health and Safety Code. Handling of hazardous materials would comply with Caltrans Standard Specification 14-11, Hazardous Waste and Contamination, which outlines handling, storage, and disposal of hazardous waste.

During the Project design phase, a bridge survey for asbestos-containing materials and lead-based substances would be conducted to locate and quantify hazardous materials (PF-HAZ-2, as presented at the end of this section). In addition, a site investigation for contaminants such as aerially deposited lead would be required (PF-HAZ-3, as presented at the end of this section). With implementation of PF-HAZ-4, wood removed from MBGR will be considered treated wood waste and must be disposed of by the contractor pursuant to Caltrans standard specifications.

The concrete would be subject to the EPA's National Emission Standards for Hazardous Air Pollutants, which require structural concrete to be screened for asbestos fiber prior to demolition. If elevated levels of hazardous materials are identified during surveys, the appropriate standard special provisions (SSPs) would be implemented, including required notification of the BAAQMD, to safely and thoroughly remove, transport, and dispose of the material at an appropriate offsite waste facility.

The lack of operational impacts from hazardous materials, along with compliance with implementation of PF-HAZ-1, would reduce the potential construction impacts caused by the transportation, use, and disposal of hazardous materials or an accidental release of hazardous materials. Therefore, impacts would be less than significant.

c) No Impact

No existing or proposed school is within 0.25 mile of the Project footprints. Tamalpais Valley Elementary School is located approximately 0.4 mile southwest of Coyote Creek Bridge/Location 1, Stinson Beach School is located approximately 1.25 miles northwest of Eskoot Creek Bridge/Location 2, and Lagunitas Elementary School is located approximately 4.6 miles northeast of Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4. Further, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste during operation. No impacts to schools would result.

d) No Impact

Screening of environmental regulatory databases, including the State Water Resources Control Board's GeoTracker and California Department of Toxic Substances Control's EnviroStor, revealed no known hazardous materials or hazardous waste sites within the immediate vicinity of the Project footprints. A Leaking Underground Storage Tank (LUST) Cleanup Site case, located approximately 1.5 miles west of Eskoot Creek Bridge/Location 2, has been closed as of August 1997 (Regional Board Case # 21-0026, Local Agency Case # 80) (SWRCB 2022).

The Project footprints are not located on a hazardous materials site compiled pursuant to Government Code Section 65962.5. The nearest case involving known hazardous materials or hazardous waste release (Regional Board Case # 21-0026, Local Agency Case # 80) has been cleaned up and the case closed for approximately 25 years. Therefore, no impact would result from the Project.

e) No Impact

No airports are within 2 miles of the Project. A private seaplane operation, which is open to the public, uses a dock, helipad, and open water for seaplane and helicopter operations at 242 Redwood Highway, approximately 0.5 mile east of Coyote Creek Bridge/Location 1. The Project footprints are not located within areas subject to an airport land use plan.

Additionally, no Project components, including construction-related equipment, would reach heights that have the potential to pose a safety hazard to airport operations. Further, the Project would not generate excessive noise that would impact people residing or working in the Project footprints, as discussed in Section 3.3.13. No impact on airports would result from the Project.

f) Less Than Significant Impact

The Project would require the temporary closure of traffic lanes at each of the four locations along SR 1. Potential localized delays to traffic along SR 1 would result from the lane closures and overnight traffic control temporarily implemented during construction. A Traffic Management Plan (TMP) (PF-TRANS-1), as discussed in Section 3.3.17, would be prepared prior to the beginning of construction, and would identify traffic delays and alternate routes. Emergency service response times are not anticipated to change during construction because the TMP would provide priority to

emergency vehicles during traffic control. The TMP would provide adequate instructions for response or evacuation in the event of an emergency, such as an earthquake or wildfire. Detour routes would be available for the traveling public to use at Coyote Creek Bridge/Location 1 and Eskoot Creek Bridge/Location 2, and details of these optional detour routes are discussed in Section 3.3.17. In addition, the Project would not conflict with the Marin Operational Area Emergency Operations Plan (Marin County 2014) or other emergency response or evacuation plans. The impact on adopted emergency response plans or emergency evacuation plans caused by the Project would be less than significant.

g) Less Than Significant Impact

Coyote Creek Bridge/Location 1 is partially within a Local Responsibility Area (LRA) and adjacent to a California Department of Forestry and Fire Protection (CAL FIRE)-designated very high fire hazard severity zone in a State Responsibility Area (SRA). Eskoot Creek Bridge/Location 2 is within both a moderate and high fire hazard severity zone in an SRA. Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 are not within designated fire hazard severity zones, but are within a Federal Responsibility Area (FRA). (CAL FIRE 2022) (Figure 3-3).

The Southern Marin Fire Protection District performs emergency services within the Coyote Creek Bridge/Location 1 Project footprint. Southern Marin Fire Protection District Station 4 is located approximately 0.6 mile west of Coyote Creek Bridge/Location 1. Additionally, Marin County Fire Department, Marin City Station, is located 0.7 mile southeast of Coyote Creek Bridge/Location 1.

Eskoot Creek Bridge/Location 2 is within the Stinson Beach Fire Department service area. The Stinson Beach Fire Station is located adjacent to Eskoot Creek Bridge/Location 2 on the northbound side of SR 1.

Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 are serviced by the Marin County Fire Department. The Marin County Fire Department, Point Reyes Station, is located approximately 5.6 miles northwest of Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4. Additionally, the Bolinas Fire Protection District is located approximately 6.8 miles southeast of Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4.

During construction, construction-related equipment would be used that has the potential to increase the risk of wildfire. However, construction crews would be

equipped with standard incipient-stage fire suppression equipment such as fire extinguishers and shovels. Professional fire services are stationed nearby and would be contacted immediately in the event of a fire. The Project does not have permanent components that would expose people or structures to risk of loss, injury, or death involving wildland fires. Impacts from the Project that would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires would be less than significant.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts from hazards and hazardous materials:

- **PF-HAZ-1, Caltrans Standard Specifications and Hazardous Waste Regulations:** The current Caltrans Standard Specifications Section 13-4, Job Site Management, would be implemented to prevent and control spills or leaks from construction equipment and from storage of fuels, paints, cleaners, solvents, and lubricants. All aspects of the Project associated with transport, storage, use, and disposal of hazardous materials would be done in accordance with the California Health and Safety Code and the appropriate local, state, and federal hazardous waste regulations. Handling and management of hazardous materials would comply with the current Caltrans Standard Specification Section 14-11, Hazardous Waste and Contamination, which outlines handling, storing, and disposing of hazardous waste.

- **PF-HAZ-2, Hazardous Material Surveys:** Conduct a bridge survey during Project design phase for asbestos-containing materials and lead-based substances to locate and quantify hazardous materials. Appropriate special provisions would be required, subject to the bridge and would be included in the PS&E package.

- **PF-HAZ-3, Site Investigation for Excavation of Unpaved Areas:** A site investigation for contaminants such as aerially deposited lead would be required for excavation of unpaved surfaces. Appropriate special provisions would be required, subject to the soil sampling results, and would be included in the PS&E package.

- **PF-HAZ-4, Treated Wood Waste:** Wood removed from MBGR will be considered treated wood waste and must be disposed of by the contractor pursuant to Caltrans standard specifications.

3.3.10 Hydrology and Water Quality

Would the Project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less Than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site;	Less Than Significant Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less Than Significant Impact
(iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	Less Than Significant Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

CEQA Significance Determinations for Hydrology and Water Quality

A Water Quality Study was prepared by the Caltrans Office of Water Quality (Caltrans 2023a) and a Floodplain Evaluation Report was prepared by HDR WRECO (HDR WRECO 2022). A summary of their findings are presented in the following sections.

The Project is located within the jurisdiction of Region 2 of the San Francisco Bay Regional Water Quality Control Board (RWQCB), which is responsible for the implementation and enforcement of state laws and regulations concerning water quality. Coyote Creek Bridge/Location 1, Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4 span Coyote Creek, Eskoot Creek, and Olema Creek, respectively. The Project is within the Bay Bridges and Marin Coastal hydrologic units. Coyote Creek is located in the Corte Madera Creek-Frontal San Francisco Bay Estuaries watershed, hydrologic sub area (HSA) 203.30, Eskoot Creek is located in the Drakes Bay-Frontal Pacific Ocean

watershed, HSA 201.30, and Olema Creek is located in the Lagunitas Creek watershed, HSA 201.13 (Caltrans 2023a).

Coyote Creek discharges into Richardson Bay, Eskoot Creek discharges into Bolinas Lagoon and tributaries, and Olema Creek discharges into Lagunitas Creek. Coyote Creek, Richardson Bay, Bolinas Lagoon and tributaries, and Olema Creek are included as beneficial uses as part of the Region 2 RWQCB Basin Plan.

The anticipated disturbed soil area (DSA) is less than an acre; therefore, stormwater discharges from the Project would be regulated under the Caltrans Municipal Separate Storm Sewer Systems General Permit. In addition, stormwater treatment is not required under the Caltrans General Permit because it is anticipated that the Project would create less than an acre of new impervious surface. However, it is expected that stormwater treatment would be required as a condition of the Section 401 Certification.

Per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Coyote Creek Bridge/Location 1 and Eskoot Creek Bridge/Location 2 are located within FEMA Base Floodplain Zone AE, which represents areas subject to flooding by the 100-year flood event determined by detailed methods where base flood elevations (BFE) are shown. At Coyote Creek Bridge/Location 1 and Eskoot Creek Bridge/Location 2, the 100-year flood elevation is approximately 9.3 feet North American Vertical Datum of 1988 (NAVD 88) and 46 feet NAVD 88, respectively.

Eskoot Creek Bridge/Location 2 is within a regulatory floodway and is bound by FEMA cross sections E and D, which have a 100-year water surface elevation (WSE) of 54.7 feet and 34.6 feet, respectively. A community shall "prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge" (HDR WRECO 2022).

Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 are located within FEMA Base Floodplain Zone A, which represents areas subject to flooding by the 100-year flood event determined by approximate methods where BFEs are not shown. Coyote Creek Bridge/Location 1, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4 are not within a regulatory floodway.

The Project location may be subject to tidal influence from current and/or future sea level rise projections as provided in the State of California Sea-Level Rise Guidance, 2018 Update (California Ocean Protection Council 2018). However, a discussion of climate change, including potential sea level rise, was not considered due to the limited nature of the Project scope, the purpose of which is to remove and upgrade the existing bridge rails at Coyote Creek Bridge/Location 1, Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4. Climate change and impacts from future sea level rise would be considered through the environmental evaluation process of future projects scoped to address these issues on SR 1 in the Project corridor.

a) Less Than Significant Impact

Construction-related activities have the potential to temporarily contribute stormwater runoff and pollutants to Coyote Creek, Richardson Bay, Bolinas Lagoon and tributaries, and Olema Creek. Construction-related activities that have the potential to result in water quality impacts include the following:

- Debris and sediments from removal of the existing bridge rails, widening of existing abutments, and modifications of existing wingwalls
- Concrete curing and waste
- Earth work
- Ground-disturbing activities
- Vegetation and tree removal
- Oil and grease from construction vehicles and equipment
- Sanitary wastes
- Construction-related waste

Implementation of PF-HYD-1, presented at the end of this section, would reduce temporary impacts to water quality and facilitate adherence to the applicable Total Maximum Daily Loads.

In addition, the anticipated DSA of 0.53 acre does not exceed 1 acre and, therefore, the Project is not subject to a Construction General Permit and is not expected to result in

operational-related impacts to water quality standards or exceed waste discharge requirements. To comply with the conditions of the Caltrans National Pollutant Discharge Elimination System (NPDES) permit and to further reduce potential impacts to hydrology and water quality, a Water Pollution Control Plan (WPCP) would be prepared prior to the beginning of construction. Potential hydrology and water quality impacts would be reduced to the maximum extent practicable through implementation of PF-HYD-1 and PF-HYD-2, as presented at the end of this section. As a result, Project impacts would be less than significant.

b) No Impact

Water would be used temporarily during construction, such as within the staging area entrances and exits. Water for construction-related activities would be brought in by the contractor and groundwater would not be used. Therefore, the Project would not affect groundwater supplies or groundwater recharge areas, and there would be no impact.

c(i), (ii), (iii), (iv) Less Than Significant Impact

The Project would result in a minor increase in impervious surface area of approximately 410 square feet for Coyote Creek Bridge/Location 1, 100 square feet for Eskoot Creek Bridge/Location 2, and 350 square feet for Olema Creek Bridges/Locations 3 and 4. However, the added impervious area as a result of the Project would be relatively insignificant to the size of the watersheds. As discussed for item b), implementation of PF-HYD-1 and PF-HYD-2 would reduce erosion, siltation, and the discharge of polluted surface water runoff on- or offsite. The Project would not significantly alter existing terrain or existing drainage patterns and, therefore, would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted surface runoff. Based on the hydraulic analysis, the floodplain WSE is below the deck widening elevations; therefore, the Project would not introduce fill inside the existing 100-year floodplain. The Project would not result in any increase in flood levels within the community during the occurrence of a flood. Therefore, the impact would be less than significant.

d) Less Than Significant Impact

Eskoot Creek Bridge/Location 2 is located within a regulatory floodway; however, as discussed in items a) and c), the Project would not contribute to new substantial sources of surface runoff or pollutants or result in increased flooding. With implementation of PF-HYD-1, temporary impacts to natural and beneficial floodplain values would be

minimized. The Project would not permanently impact natural and beneficial floodplain values or support incompatible floodplain development. Based on the results of the hydraulic analysis for Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4, the 100-year WSE is below the soffit and will not impact the existing FEMA 100-year floodplain. Based on the hydraulic analysis for Coyote Creek Bridge/Location 1, the proposed bridge condition would not significantly modify the water surface profile within the studied reach for the 100-year flood. Therefore, no floodplain impacts are anticipated. Coyote Creek Bridge/Location 1 is within a tsunami inundation zone (California Department of Conservation 2022c), but in the case of Project inundation, the release of substantial pollutants is not anticipated. Therefore, there would be a less than significant impact.

e) No Impact

With implementation of PF-HYD-1 and PF-HYD-2, the Project would not conflict with or obstruct implementation of a water quality control plan or suitable groundwater management plan. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce potential impacts to hydrology and water quality:

- **PF-HYD-1, Construction and Implementation of Erosion Control, Construction Site, and Water Pollution Control Best Management Practices:** Erosion control BMPs would be included in the final Project plans and SSPs to comply with the conditions of the Caltrans NPDES permit. The *Caltrans BMP Guidance Handbook* (Caltrans 2017) would provide guidance for SSPs for measures to Project-delineated ESAs and reduce stormwater discharges. Construction site BMPs would include the following:
    - Soil stabilization
    - Sediment control
    - Tracking control
    - Non-stormwater management measures
    - General construction site management
    - Stormwater sampling and analysis

Erosion control and water pollution control BMPs would be prepared and implemented during construction to minimize wind- or water-related erosion. BMPs would follow requirements of the RWQCB, and standards outlined in the *Caltrans BMP Guidance Handbook* (Caltrans 2017).

The following restrictions would be implemented to reduce potential impacts on hydrology and water quality:

- Enforce a speed limit of 15 miles per hour for construction vehicles and equipment in unpaved portions of the Project footprint to reduce dust and excessive soil disturbance.
- Locate construction access, staging, storage, and parking areas within Caltrans ROW and outside of delineated ESAs to the maximum extent practicable. Construction staging areas and storage of construction-related equipment and materials would be limited to the minimum necessary to construct the Project. ESAs would be clearly delineated prior to the beginning of construction.
- Certify, to the maximum extent practicable, that imported borrow material is nontoxic and weed-free.
- Enclose food and food-related waste in sealed containers and remove them from the Project footprint at the end of each working day.
- Prohibit pets from entering the Project footprint during construction.
- Prohibit firearms within the Project footprint, except for those carried by authorized security personnel or local, state, or federal law enforcement.

- **PF-HYD-2, Water Pollution Control Program:** A WPCP would be prepared by the contractor and approved by the Caltrans Water Quality Specialist, pursuant to the Caltrans Standard Specifications Section 13, Water Pollution Control, and the *Caltrans WPCP Preparation Manual*, and implemented prior to the beginning of construction.

3.3.11 Land Use and Planning

Would the Project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

Existing and future land uses for the Project footprints are described in the *Marin Countywide Plan* (MCP) built environment element (Marin County 2007). Coyote Creek Bridge/Location 1 is located within the Richardson Bay Planning Area, and the other three bridges are located within the West Marin Planning Area of the MCP.

CEQA Significance Determinations for Land Use and Planning

According to the MCP built environment element, the Project footprints' land use and zoning designations are, respectively:

- General Commercial/Mixed Use and Planned Commercial (Marin County Assessor's Parcel Number [APN] 052-052-38; Coyote Creek Bridge/Location 1)
- Neighborhood Commercial/Mixed Use and Residential Commercial Multiple Planned (Marin County APNs 052-061-18, 052-061-19, 195-194-37; Coyote Creek Bridge/Location 1 and Eskoot Creek Bridge/Location 2)
- Neighborhood Commercial/Mixed Use Coastal Zone and Village Commercial Residential (Marin County APNs 195-194-35, 195-194-37; Eskoot Creek Bridge/Location 2)
- Low Density Residential Coastal Zone and Residential Single Family (Marin County APN 195-212-01; Eskoot Creek Bridge/Location 2)
- Open Space and Open Area (Marin County APNs 052-061-10, 052-061-03, 052-061-08, 052-052-43, 052-052-42, 052-052-37, 188-020-15, 166-110-16, 166-240-22; Coyote Creek Bridge/Location 1, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4)

a and b) No Impact

The Project would not physically divide an established community, and the Project complies with the stated goals for the Richardson Bay and West Marin Planning Areas

of the MCP. Land use policies and goals for the two planning areas include maintaining village character, avoiding larger-scale development, and preserving historic structures, with which the Project is in compliance. Therefore, there would be no impact.

3.3.12 Mineral Resources

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

CEQA SIGNIFICANCE DETERMINATIONS FOR MINERAL RESOURCES

a and b) No Impact

The California Geological Survey (CGS) designates the four bridges of the Project as occurring within MRZ categories as follows (Miller 2013):

- Coyote Creek Bridge/Location 1 (Bridge No. 27-0018, PM 0.42): On the boundary between MRZ-1 and MRZ-3
- Eskoot Creek Bridge/Location 2 (Bridge No. 27-0077, PM 12.37): MRZ-3
- Olema Creek Bridge South/Location 3 (Bridge No. 27-0020, PM 22.81): On the boundary between MRZ-1 and MRZ-3
- Olema Creek Bridge North/Location 4 (Bridge No. 27-0021, PM 22.96): On the boundary between MRZ-1 and MRZ-3

CGS designates MRZ-1 as "areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources" and MRZ-3 as "areas containing mineral occurrences of undetermined mineral resource significance."

The Project bridges occur within the MRZ categories MRZ-1 and MRZ-3 (Miller 2013). However, the Project would not disturb mineral resources, if present, and would not result in the loss of availability of a known mineral resource or locally important mineral resource recovery site. Therefore, no impact would occur.

3.3.13 Noise

Would the Project result in:

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

CEQA Significance Determinations for Noise

A Construction Noise Analysis was completed by Caltrans Office of Environmental Engineering, Noise (Caltrans 2021b). A summary of the findings is presented in the following sections.

a) Less Than Significant Impact

The Project would not permanently increase ambient noise levels in the vicinity of the bridges. The Project footprints are within SR 1, which creates background noise levels for nearby residents. The Project would not change SR 1 transportation capacity or increase long-term ambient noise levels.

The Project would potentially expose noise-sensitive receptors to a short-term increase in noise levels during construction, but the increase would be temporary. While most construction-related activities would occur during daytime hours, construction noise would be experienced for short durations during nighttime hours. Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, Noise Control, which limits maximum hourly noise levels (L_{max}) to 86 A-weighted decibels (dBA) at 50 feet from a project from 9:00 p.m. to 6:00 a.m. PF-NOISE-1, as presented at the end of this section, includes the requirements of Caltrans Standard Specification Section 14-8.02, Noise Control.

The Roadway Construction Noise Model (RCNM) was used to estimate the noise levels during construction. In summary, the loudest operation would be from concrete bridge rail demolition at Eskoot Creek Bridge/Location 2. The L_{max} at the nearest residence

approximately 39 feet away from demolition activities would be 91.7 dBA. Because construction noise levels have the potential to exceed 86 dBA at 50 feet from the project, AMM-NOISE-1, as presented at the end of this section, includes measures to reduce construction noise and conduct public outreach to nearby noise-sensitive receptors. AMM-NOISE-1 includes temporary noise control measures listed in the Construction Noise Assessment.

b) No Impact

Pile driving is not proposed at Coyote Creek Bridge/Location 1, Eskoot Creek Bridge/Location 2, or Olema Creek Bridge North/Location 4; however, construction of Olema Creek Bridge South/Location 3 may require pile driving. One residential structure is located southeast of Olema Creek Bridge South/Location 3. Based on the Structure Design Advance Planning Study Sheet (Caltrans 2021a), it was determined the residential structure is located approximately 500 feet from proposed pile driving activities. When quantifying the potential vibration impacts to structures, Caltrans uses Peak Particle Velocity (PPV). According to the Caltrans *Transportation and Construction Vibration Guidance Manual (*Caltrans 2020), the recommended PPV limit to protect older residential buildings is 0.3 inch per second (in/sec). At 500 feet heavy construction equipment such as a vibratory roller would be below the PPV limit, and therefore construction vibration would not exceed the limits for older residential structures recommended by Caltrans. There would be no impact.

c) No Impact

There are no airports or airstrips within two miles of the Project vicinity. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following PF into the Project to reduce potential impacts to noise.

- **PF-NOISE-1, Nighttime Construction:** Construction noise levels are not to exceed 86 dBA L_{max} at 50 feet from the Project footprint from 9:00 p.m. to 6:00 a.m. per 2018 Caltrans Standard Specifications, Section 14-8.02.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMMs into the Project to avoid and/or minimize potential impacts to noise.

- **AMM-NOISE-1, Construction Noise Levels:** The following measures would be implemented to reduce noise levels during construction:
    - The Contract Specifications would include a Special Provision requiring Noise Monitoring and Control which shall include: Provide public outreach or a communication plan for residents, businesses, and others to get accurate Project information.
    - Locate staging and storage areas away from residential areas.
    - Consider reducing impact of detours.
    - Use quieter alternative construction-related equipment.
    - Prevent idling of construction-related equipment near sensitive receptors.
    - Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine within the Project footprint without the appropriate muffler.
    - If feasible, use solar or electricity as a power source instead of diesel generators.

3.3.14 Population and Housing

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR POPULATION AND HOUSING

a and b) No Impact

The Project would not induce population growth directly or indirectly, displace existing people or housing, or necessitate the construction of replacement housing elsewhere. New commercial or residential establishments would not be built as a result of the Project. The Project would not increase SR 1 transportation capacity, as the widening of these bridges will not widen the actual highway width (the lane and shoulder widths will remain in place), and no additional travel lanes would be constructed. Construction-related activities, including staging areas, would occur within, as well as outside of, Caltrans ROW. The Project would require ROW acquisitions for the purposes of TCEs for construction-related activities occurring outside Caltrans ROW including four TCEs at Coyote Creek Bridge/Location 1, and one TCE at Olema Creek Bridge North/Location 4, all located west of the southbound lane. Based on the surrounding land uses and the existing setting of the parcels of the anticipated TCEs, the Project would have no impact on population and housing.

3.3.15 Public Services

Question	CEQA Determination
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	
(i) Fire protection?	Less Than Significant Impact
(ii) Police protection?	Less Than Significant Impact
(iii) Schools?	No Impact
(iv) Parks?	No Impact
(v) Other public facilities?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR PUBLIC SERVICES

a(i), (ii) Less Than Significant Impact

Construction of the Project would not result in the provision of new or physically altered governmental facilities or result in a need for new or physically altered governmental facilities, the construction of which has the potential to cause significant environmental impacts. The following agencies provide public services for the respective Project locations:

Coyote Creek Bridge/Location 1 (Bridge No. 27-0018) at PM 00.42:

- Marin County Sheriff's Department – Southern Substation (850 Drake Ave, Sausalito, CA 94965) and Mill Valley Police Department (1 Hamilton Dr, Mill Valley, CA 94941)
- Marin County Fire Department – Marin City Station (850 Drake Ave, Sausalito, CA 94965) and Mill Valley Fire Department Station 7 (1 Hamilton Dr, Mill Valley, CA 94941)
- Sausalito Marin City School District (200 Phillips Dr, Sausalito, CA 94965) and Mill Valley School District (411 Sycamore Ave, Mill Valley, CA 94941)

Eskoot Creek Bridge/Location 2 (Bridge No. 27-0077) at PM 12.37:

- Marin County Sheriff's Department – Southern Substation (850 Drake Ave, Sausalito, CA 94965)
- Stinson Beach Fire Department No. 2 (3410 Shoreline Highway, Stinson Beach, CA 94970)
- Bolinas-Stinson Union School District (125 Olema Bolinas Rd, Bolinas, CA 94924)

Olema Creek Bridge South/Location 3 (Bridge No. 27-0020) at PM 22.81, and Olema Creek Bridge North/Location 4 (Bridge No. 27-0021) at PM 22.96:

- Marin County Sheriff's Department – Point Reyes Substation (4th St, Point Reyes Station, CA 94956)
- Marin County Fire Department – Point Reyes Fire Station (4th St, Point Reyes Station, CA 94956)
- Shoreline Unified School District (10 John St, Tomales, CA 94971)

To maintain the use of SR 1 for the traveling public and emergency service providers, construction would be performed one side of the Highway at a time, with the northbound side being completed in stage 1, and the southbound side being completed in stage 2. A TMP (PF-TRANS-1), as discussed in Section 3.3.17, would be prepared prior to the beginning of construction to avoid or minimize potential impacts to transportation service ratios, response times, and other performance objectives for public services. The TMP would identify traffic delays and alternate (detour) routes for emergency and medical vehicles associated with essential public services during full closure of SR 1 or one-way alternating traffic control. The TMP would provide priority to emergency vehicles during traffic control, as well as provide adequate instructions for response or evacuation in the event of an emergency. Additionally, the TMP would include installation of temporary railing, traffic cones, Changeable Message Signs (CMS), construction area signs, and potential lane closures to accommodate the barrier construction. Traffic impacts would be temporary during construction; therefore, impacts are anticipated to be less than significant.

a(iii), (iv), and (v) No Impact

There are no schools, parks, or other public facilities within the Project limits; therefore, there would be no impacts.

3.3.16 Recreation

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

CEQA SIGNIFICANCE DETERMINATIONS FOR RECREATION

Coyote Creek Bridge/Location 1 crosses the Charles F. McGlashan Pathway, and Olema Creek Bridge North/Location 4 is within the Point Reyes National Seashore. The nearest public park or recreational facility to each bridge is: Kay Park, approximately 0.4 mile west of Coyote Creek Bridge/Location 1; Dipsea Trail Head, approximately 0.04 mile southeast of Eskoot Creek Bridge/Location 2; and Five Brooks Trailhead, approximately 0.15 mile west of Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4.

- Bothin Marsh within 0.5 mile of Coyote Creek Bridge/Location 1
- Mill Valley/Sausalito Path within 0.5 mile of Coyote Creek Bridge/Location 1
- Golden Gate National Recreational Area within 0.5 mile of all four bridge Locations
- Stinson Beach within 0.5 mile of Eskoot Creek Bridge/Location 2
- Mount Tamalpais State Park within 0.5 mile of Eskoot Creek Bridge/Location 2
- Village Green within 0.5 mile of Eskoot Creek Bridge/Location 2
- Upton County Beach within 0.5 mile of Eskoot Creek Bridge/Location 2
- Bolinas Lagoon within 0.5 mile of Eskoot Creek Bridge/Location 2
- Point Reyes National Seashore within 0.5 mile of Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4

Recreational parks and facilities adjacent to the Project were evaluated in the *Draft State Route 1 Bridge Rail Replacement Project (04-0P960) – Evaluation of Potential*

Section 4(f) Resources and De Minimis Impact Determination (Caltrans 2023b) prepared for the Project.

a and b) No Impact

The Project would not directly or indirectly increase the demand of existing recreational facilities such that substantial deterioration of the facilities would occur. With implementation of AMM-REC-1, as presented at the end of this section, at the staging area located approximately 0.5-mile south of Eskoot Creek Bridge/Location 2 at PM 12, construction staging would not occur within the Golden Gate National Recreation Area. In addition, the Project would not require the construction of additional recreational facilities. Therefore, there would be no impact.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate the following AMMs into the Project to avoid and/or minimize potential impacts to recreation.

- **AMM-REC-1, Temporary Fencing:** Before starting construction, temporary fencing would be installed at the staging area located approximately 0.5-mile south of Eskoot Creek Bridge/Location 2 at PM 12 to prevent construction equipment or personnel from entering the Golden Gate National Recreation Area. The final Project plans will depict the exact location of where this temporary fencing will be installed and how it will be assembled/constructed. The SSPs will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within the temporarily fenced area. The temporary fencing will be removed when the staging area is no longer needed for Project construction.

3.3.17 Transportation

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR TRANSPORTATION

The Project proposes to replace and upgrade existing bridge railings to meet current Caltrans standards at four separate bridges on SR 1. Coyote Creek Bridge/Location 1 is at PM 00.42, Eskoot Creek Bridge/Location 2 is at PM 12.37, Olema Creek Bridge South/Location 3 is at PM 22.81, and Olema Creek Bridge North/Location 4 is at PM 22.96. While Eskoot Creek Bridge/Location 2 meets the required 40-foot width for a two-lane bridge, the other locations do not. Additionally, the metal beam guardrail at Coyote Creek Bridge/Location 1 would be removed and replaced and the concrete baluster barriers at Eskoot Creek Bridge/Location 2, Olema Creek Bridge South/Location 3, and Olema Creek Bridge North/Location 4 would be removed and replaced.

a) Less Than Significant Impact

Currently, SR 1 allows pedestrians on the highway shoulders and on bridges when other pedestrian facilities are not present. There are existing pedestrian bridge facilities along Coyote Creek Bridge/Location 1 on both sides. Eskoot Creek Bridge/Location 2 has existing sidewalks on both sides of the bridge, which will be removed and reconstructed and will include ADA-accessible ramps. Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4 do not have existing pedestrian facilities. The Project would conflict with the *Caltrans District 4 Bike Plan* (Caltrans 2018), which identifies infrastructure improvements that can enhance bicycle safety and mobility throughout District 4 and remove some of the barriers to bicycling in the region. However, none of the four bridge locations are located within an area that is classified as a Top Tier Project.

The Project would also conflict with Director's Policy (DP) 37, Complete Streets (Caltrans 2021b). This DP requires that the Project, which is a capital project, provide "complete streets" facilities for pedestrians walking and bicyclists biking within the Project footprints. The Project would not provide complete streets facilities and justification would be documented with final approval by the Caltrans District 4 Director. The Project would not conflict with any other programs, plans, ordinances, or policies regarding the circulation system, public transit, or bicycle and pedestrian facilities. As stated in Section 1.2, the purpose of the Project is to protect the traveling public by enhancing the reliability of the bridge railing systems.

To protect construction workers and the traveling public, traffic control would be in place while construction-related activities are under way. A detailed TMP (PF-TRANS-1, presented at the end of this section) would be developed prior to the beginning of construction to aid in coordinating and providing further safety measures for those accessing the Project footprints during construction. Therefore, impacts would be less than significant.

b) Less Than Significant Impact

The Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The Project would have no permanent impact on vehicle miles traveled (VMT). Under Section 15064.3, subdivision (b), transportation projects that have no impact on VMT would be presumed to cause a less than significant transportation impact.

c) No Impact

The Project would not increase hazards because of a geometric design feature. The Project does not include Project components that would substantially increase hazards. There would be no impact.

d) Less Than Significant Impact

The Project would not result in inadequate emergency access. With implementation of PF-TRANS-1, medical and emergency vehicles would be able to continue to use SR 1 for fire, medical, emergency, and law enforcement purposes. The Project has the potential to cause short-term, localized traffic congestion and delays resulting from one-way traffic control during construction. Detours would not be required during construction because one lane of traffic will remain open during construction; however,

detour routes would be available for the traveling public to use at Coyote Creek Bridge/Location 1 (Figure 3-1) and Eskoot Creek Bridge/Location 2 (Figure 3-2).

At Coyote Creek Bridge/Location 1, the northbound detour would begin at the intersection of SR 1 and Tennessee Valley Road, turn right on Marin Avenue, right onto Flamingo Road, and end at the intersection of SR 1 and Flamingo Road. The southbound detour at Coyote Creek Bridge/Location 1 would begin at the intersection of SR 1 and Flamingo Road, left onto Marin Avenue, left onto Tennessee Valley Road, and end at the intersection of SR 1 and Tennessee Valley Road (Figure 3-1, Appendix A).

At Eskoot Creek Bridge/Location 2, the northbound detour would begin at the intersection of SR 1 and Arenal Avenue, right onto Calle Del Mar, and then end at the intersection of Calle Del Mar and SR 1. The southbound detour would begin at the intersection of SR 1 and Calle Del Mar, travel south on Calle Del Mar, left onto Arenal Avenue, and then end at the intersection of Arenal Avenue and SR 1 (Figure 3-2, Appendix A). The impact would be less than significant.

PROJECT FEATURES

Caltrans would incorporate the following PF into the Project to reduce potential impacts to transportation:

- **PF-TRANS-1, Transportation Management Plan:** A TMP would be prepared prior to the beginning of construction and in consultation with the appropriate agencies to avoid or minimize potential impacts to transportation. The TMP would identify traffic delays and alternate detour routes for emergency and medical vehicles associated with essential public services during one-way alternating traffic control and would provide notifications and instructions for rapid response or evacuation in the event of an emergency. The TMP would aid in coordinating and providing further safety measures for those accessing SR 1 within the Project limits during construction and would provide priority to emergency vehicles during traffic control.

3.3.18 Tribal Cultural Resources

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

Question	CEQA 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	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR TRIBAL CULTURAL RESOURCES

a and b) No Impact

Under Section 106 of the National Historic Preservation Act (NHPA) and Assembly Bill 52, Caltrans sent consultation letters initiating consultation to the identified tribes and individuals from the list provided by the NAHC. No tribal cultural resources were identified through the consultation process under Section 106 of the NHPA or Assembly Bill 52 or through the archaeological pedestrian survey. No tribe has requested further information or formal consultation as of the date of this document. Therefore, the Project would have no impact on tribal cultural resources.

3.3.19 Utilities and Service Systems

Would the Project:

Question	CEQA Determination
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less Than Significant Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

Utility providers along the Project corridor include PG&E, AT&T, and North Marin Water District. Potable water for Point Reyes Station and nearby communities is supplied through the Point Reyes Treatment Plant, which is operated by North Marin Water District. There is no wastewater service provider for the community of Point Reyes Station.

A 2.5-inch galvanized iron pipe conduit is attached to the southern edge of Coyote Creek Bridge/Location 1. This utility conduit would need to be temporarily or permanently relocated during construction of the bridge railing. A 2-inch plastic conduit carrying a communication cable is on the face of the south abutment just below the soffit of Coyote Creek Bridge/Location 1. This utility conduit would potentially need to be protected in place during construction of the bridge railing. For the construction of the bridge rails at Eskoot Creek Bridge/Location 2, it is anticipated that an existing 6-inch water line along the southern edge of the deck would potentially be relocated to accommodate the proposed widening. Additionally, at Eskoot Creek Bridge/Location 2, there is an existing 4-inch high pressure water line that is attached to the bridge deck and runs across the width of the bridge. This water line is anticipated to be relocated as well.

Utility lines are present longitudinally on both sides of SR 1 at all four locations, including some that cross the highway horizontally near Coyote Creek Bridge/Location 1 and Eskoot Creek Bridge/Location 2. The utility poles supporting these lines may be jointly owned, and may carry electrical distribution, telephone, and cable television lines. If the utility poles or lines conflict with the proposed work, then they would be relocated or protected in place during construction.

CEQA SIGNIFICANCE DETERMINATIONS FOR UTILITIES AND SERVICE SYSTEMS

a) Less Than Significant Impact

The Project has the potential to require utility relocation. Utility verification (potholing) would occur during the Project design phase to confirm the need for utility relocations and, if needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers (PG&E, AT&T, and North Marin Water District). Caltrans would coordinate with the appropriate utility provider. With the implementation of PF-UTIL-2, presented at the end of this section, the impact would be less than significant.

b, c, d, and e) No Impact

The Project would not generate a demand for potable water supplies or the services of a wastewater treatment provider; therefore, there would be no impact. The Project would not result in any substantial demands for solid waste disposal and would comply with federal, state, and local statutes regarding the disposal of solid waste. Implementation of PF-UTIL-1, presented at the end of this section, and PF-HAZ-4, presented in Section 3.3.9, would require the proper disposal of construction trash. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate the following standard PFs into the Project to reduce impacts to utilities and service systems:

- **PF-UTIL-1, Trash Management:** All food-related trash items, such as wrappers, cans, bottles, and food scraps, will be disposed of in closed containers and removed by the contractor at least once daily from the Project limits. A trash reduction system would also be developed by the contractor, approved by Caltrans, and implemented per the Caltrans NPDES Permit and San Francisco RWQCB Cease and Desist Order.

- **PF-UTIL-2, Notify Utility Owners of Construction Schedule to Protect Utilities:** Caltrans would notify all affected utility companies of the construction schedule for the Project so that relocations can be conducted by each utility company as necessary prior to the start of construction.

3.3.20 Wildfire

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

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less Than Significant Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Less Than Significant Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less Than Significant Impact

The four bridge locations that correspond to the Project are all located within Marin County and are within varying levels of local, state, federal responsibility areas and are within or near varying types of fire hazard severity according to CAL FIRE (Figure 3-3). Coyote Creek Bridge/Location 1, near Marin City, is within an LRA; directly east of the bridge is classified as an SRA and is considered a very high fire hazard severity zone (Figure 3-3a). Eskoot Creek Bridge/Location 2, south of Stinson Beach, is within an SRA and is partially within a moderate and high fire hazard severity zone (Figure 3-3b). Olema Creek Bridge South/Location 3 and Olema Creek Bridge North/Location 4, located south of Tomales Bay, are both within an FRA (Figure 3-3c and Figure 3-3d).

The Marin County Fire Department provides fire suppression, rescue, and emergency services within the Project corridor (Marin County 2022a). In 2005, the Marin County Fire Service created the Mt. Tamalpais Threat Zone Plan (MTZ Plan) for wildland urban interface fires on and around Mt. Tamalpais; its purpose is to define roles, responsibilities, and authorities and create a framework for organization, including maps that defined areas to include Structure Protection Zones and evacuation routes (Marin County 2022b). While the MTZ Plan was expanded in 2008 to include all of the wildland urban interface areas in Marin County, including additional maps for expanded areas, the Project is not located within a Structure Protection Evacuation Zone or Wildland Urban Interface Zone (Marin County 2022b). Further, the Project

does not fall within a designated evacuation zone as identified by Marin County (Marin County 2022b; Fire Safe Marin 2022).

CEQA SIGNIFICANCE DETERMINATIONS FOR WILDFIRE

a, b, c, and d) Less Than Significant Impact

A TMP (PF-TRANS-1), as discussed in Section 3.3.17, would be prepared prior to the beginning of construction and in consultation with the appropriate agencies to avoid or minimize potential impacts to transportation. The TMP would identify traffic delays and alternate routes for emergency and medical vehicles associated with essential public services during one-way alternating traffic control and would provide notifications and instructions for rapid response or evacuation in the event of an emergency. The TMP would aid in coordinating and providing further safety measures for those accessing SR 1 within the Project limits during construction. In the event of a wildfire, the TMP would be implemented. The Project would not exacerbate wildfire risks or expose people or structures to significant risks. Therefore, the Project would have a less than significant impact.

3.3.21 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)?	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE

a) Less Than Significant Impact

As determined in Section 3.3.4, Biological Resources, the Project would not 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, or substantially reduce the number of or restrict the range of a rare or endangered plant or animal.

The Project would generate temporary and permanent impacts to both terrestrial ESHAs and aquatic ESHAs. Implementation of PFs and AMMs would avoid and/or minimize impacts to terrestrial ESHAs and aquatic ESHAs. Indirect temporary impacts to jurisdictional aquatic features may occur from vegetation removal or general construction activities. The incorporation of standard PFs and AMMs would minimize the temporary impacts.

No archaeological resources were identified within the project APE, however one historic property was identified. The four bridges are not contributors to the historic district and there is no potential for the Project to impact the historic district's contributing resources or alter the integrity of the district. The historic district will continue to convey its historic significance.

The Project would also result in other temporary, minor, and construction-related impacts. PFs and AMMs (Appendix C), would avoid, and/or minimize impacts to less than significant levels.

b) No Impact

A review of projects in the vicinity of the Project determined that no past, present, or future projects would pose a cumulative effect together with implementation of the Project. For biological resources, no cumulative impacts are anticipated due to the implementation of the PFs and AMMs as summarized in Appendix C.

With respect to population and housing, the Project would not be growth inducing. With respect to land use and planning, the Project is generally consistent with State Scenic Highway Program, Marin Countywide Plan, California Coastal Act, Habitat Conservation Plan, and Natural Community Conservation Plan. With these considerations, the Project would not have cumulative impacts, therefore there would be no impact.

c) Less Than Significant Impact

The Project would have no impact on agriculture and forest resources, land use and planning, mineral resources, population and housing, recreation, and tribal cultural resources. The Project would potentially affect aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation, utilities and service systems, and wildfire. However, with implementation of PFs and AMMs these potential impacts would be avoided and/or minimized to a less than significant level. Construction-related activities would temporarily increase criteria air pollutant emissions, ambient noise levels, and emergency response times and the Project would incorporate PFs and AMMs to avoid or minimize potentially adverse effects to humans. Therefore, the Project would not have a substantial direct or indirect impact on the human environment. Impacts would be less than significant.

Chapter 4 Community Outreach and Consultation and Coordination with Public Agencies

To date, public and agency coordination consists of the following:

4.1 Community Outreach

This IS/ND, maps, and Project information are available to download at the District 4 Environmental Documents by County website (https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs). In addition, a hard copy of this IS/ND will be made available at the following location in the vicinity of the Project:

- Point Reyes Library
  11431 State Route 1
  Point Reyes Station, CA 94956

- Marin City Library
  164 Donahue Street
  Sausalito, CA 94965

The deadline for submission of comments on the IS/ND is June 20, 2023.

4.2 Consultation and Coordination with Public Agencies

Consultation with agencies occurred during the environmental evaluation process. A list of coordination activities and contacts is provided in Table 4-1.

Table 4-1. Consultation and Coordination with Public Agencies

Organization(s)	Date	Topic
California Coastal Commission	July 14, 2021	Caltrans sent an email to the California Coastal Commission on July 14, 2021, providing the Project description and details for Eskoot Creek Bridge/Location 2 and stating that Caltrans will not apply for a Coastal Development Permit (CDP) with the Commission, but rather will submit an application to Marin Local Coastal Program (LCP). The Commission reviewed the Project description and details, and responded on August 3, 2021, stating that they do not foresee any issues with the single widening/railing replacement located in the Coastal Zone (Eskoot Creek Bridge/Location 2).
Marin County	February 7, 2023	Senior Planner at Marin County was provided with the layouts for Eskoot Creek Bridge/Location 2. Marin County Senior Planner replied stating that the County will look at the layouts and provide further direction regarding local requirements.
National Oceanic and Atmospheric Administration National Marine Fisheries Service	October 18, 2022	Caltrans Biologist met with NOAA Fisheries to discuss using the Caltrans Programmatic Biological Opinion.
National Park Service	August 4, 2022 August 24, 2022 September 15, 2022 September 26, 2022 October 10, 2022 January 5, 2023 January 12, 2023 February 9, 2023	Environmental Planner followed up with National Park Service regarding the Special Use Permit (SUP) application that had been submitted by Caltrans on April 4, 2022. Additionally, the Environmental Planner followed up with National Park Service on August 24, 2022, September 15, 2022, September 26, 2022, October 10, 2022, January 5, 2023, and January 12, 2023, regarding the status of the SUP. The SUP was granted February 9, 2023.
Native American Heritage Commission	April 22, 2021 October 21, 2021	Caltrans PQS sent a consultation letter to the Federated Indians of Graton Rancheria on April 22, 2021, no response received. Caltrans PQS sent a consultation letter to the Tribal Historic Preservation Officer, Federated Indians of Graton Rancheria on October 21, 2021, no response received.
U.S. Fish and Wildlife Service	March 17, 2022 January 24, 2023	Caltrans Biologist requested technical assistance from USFWS on March 17, 2022. On January 24, 2023, Caltrans Biologist reinitiated a request for technical assistance from USFWS.

Chapter 5 List of Preparers and Reviewers

The primary people responsible for preparing and reviewing this IS/ND are summarized in Table 5-1.

Table 5-1. List of Preparers and Reviewers

Organization	Name	Role
Caltrans	Maxwell Lammert	Office Chief (Acting), Office of Environmental Analysis
Caltrans	Arnica MacCarthy	Senior Environmental Planner, Office of Environmental Analysis
Caltrans	Elizabeth Nagle	Senior Environmental Planner (Acting), Office of Environmental Analysis
Caltrans	Robert Blizard	Branch Chief, Office of Biological Sciences and Permits
Caltrans	Grant Samaniego	Environmental Scientist, Office of Biological Sciences and Permits
Caltrans	Alicia Sanhueza	Environmental Planner (Architectural History), Office of Cultural Resource Studies
Caltrans	Kathryn Rose	Senior Environmental Planner (Archaeology), Office of Cultural Resource Studies
Caltrans	Althea Asaro	Branch Chief (Acting), Office of Cultural Resource Studies
Caltrans	Shilpa Mareddy	Branch Chief, Office of Environmental Engineering
Caltrans	Kevin Krewson	Office Chief, Office of Environmental Engineering
Caltrans	Akshitha Boddu	Transportation Engineer, Office of Environmental Engineering, Hazardous Waste Branch
Caltrans	Chris Risden	Branch Chief, Office of Geotechnical Design – West
Caltrans	Mark Morancy	Branch Chief, Office of Hydraulic Engineering – Marin County
Caltrans	Joaquin Pedrin	Branch Chief, Office of Landscape Architecture
Caltrans	Wo Guan	Landscape Architecture Associate, Office of Landscape Architecture
Caltrans	Mojgan Osooli	Branch Chief, Office of Water Quality
Caltrans	Tayebeh Chimeh	Transportation Engineer, Office of Water Quality
Caltrans	Raja Ereiqat	Transportation Engineer, Office of Water Quality
Caltrans	Jawad Marji	Air Quality and Noise Specialist, Office of Environmental Engineering
Caltrans	Va Lee	Air Quality and Noise Specialist, Office of Environmental Engineering
Caltrans	Ronald Sangalang	Office Chief, Project Manager Marin County

Organization	Name	Role
Caltrans	Saman Soheilifard	Transportation Engineer, (Acting) Project Manager
Caltrans	Bob Zandipour	Senior Transportation Engineer, Roadway Design and Utility Engineering, Division of Design Services
Caltrans	James Tucker	Project Engineer, Division of Design Services, Office of Roadway Design and Utility Engineering
Caltrans	Joy Cheung	Office Chief, Area Construction Manager Marin & Sonoma County
Caltrans	Jose David	Branch Chief, Construction Engineer Marin County
Caltrans	Adam Menke	Senior Transportation Engineer, Office of Bridge Design West, Bridge Design Branch 9
Caltrans	Jeff Kress	Senior Bridge Engineer, Area Bridge Construction Engineer, Office of Structures Construction
Caltrans	Shella Orson	Branch Chief, Right of Way Project Coordination
Caltrans	Jim Murphy	Associate Right of Way Agent, Project Coordination
Caltrans	Naghdali Hosseinzadeh	Project Engineer, Office of Bridge Design West, Bridge Design Branch 9
Caltrans	Hong Wong	Senior Transportation Engineer, Utility Engineering
Caltrans	Ihar Saladukha	Transportation Engineer, Utility Engineering
HDR | WRECO	Chris Sewell	Associate Vice President
HDR | WRECO	Wana Chiu	Hydraulics Engineer
Jacobs	Rachel Cotroneo	Senior Biologist
Jacobs	Jack Gordon	Biologist
Jacobs	Patricia Ambacher	Senior Cultural Resources Specialist
Jacobs	Hong Zhuang	Senior Environmental Engineer
Jacobs	Yassaman Sarvian	Senior Environmental Planner
Jacobs	Joe Aguirre	Environmental Planner
Jacobs	Hannah Minderhout	Environmental Planner
Jacobs	Erik Lauritzen	Environmental Planner
Jacobs	Ryo Nagai	Environmental Planner
Jacobs	Will Packard	Environmental Planner
Jacobs	Sam Schoevaars	Environmental Planner
Jacobs	Tara Zuroweste	Environmental Planner
Jacobs	Yerandy Pacheco	Transportation Planner
Jacobs	Loretta Meyer	Senior Environmental Planner/Project Manager

Organization	Name	Role
Jacobs	Joza Burnam	Senior Environmental Planner
Jacobs	Chris Archer	Geospatial Professional
Jacobs	Clarice Ericsson	Senior Publications Technician
Jacobs	Bryan Bell	Senior Technical Editor
Jacobs	Jenny Sullivan	Technical Editor

Chapter 6 Distribution List

The IS/ND will be circulated by transmittal letter via email on May 22, 2023, to the agencies and elected officials listed in the following sections.

6.1 Agencies

Bay Area Air Quality Management District
375 Beale Street, Suite 660
San Francisco, CA 94105

California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

California Department of Fish and Wildlife
2825 Cordelia Road, Suite 100
Fairfield, CA 94534

California Department of Parks and Recreation
845 Casa Grande RD
Petaluma, CA 94954

California Transportation Commission
1120 N Street MS 52
Sacramento, CA 95814

Governor's Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

Marin County Planning Division
3501 Civic Center Drive, Suite 308
San Rafael, CA 94903

Marin County Sheriff's Office
1600 Los Gamos Drive, Suite 300
San Rafael, CA 94903

National Park Service
333 Bush Street, Suite 500
San Francisco, CA 94104

San Francisco Bay Conservation and Development Commission
375 Beale St.
San Francisco, CA 94105

San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Transportation Authority of Marin
900 Fifth Avenue, Suite 100
San Rafael, CA 94901

U.S. Fish and Wildlife Service
2800 Cottage Way, Suite W-2605
Sacramento, CA 95825

U.S. Army Corps of Engineers
450 Golden Gate Ave, 4th Floor
San Francisco, CA 94102

6.2 Elected Officials

The Honorable Dianne Feinstein
United States Senate
One Post Street, Suite 2450
San Francisco, CA 94104

The Honorable Alex Padilla
United States Senate
333 Bush Street, Suite 3225
San Francisco, CA 94104

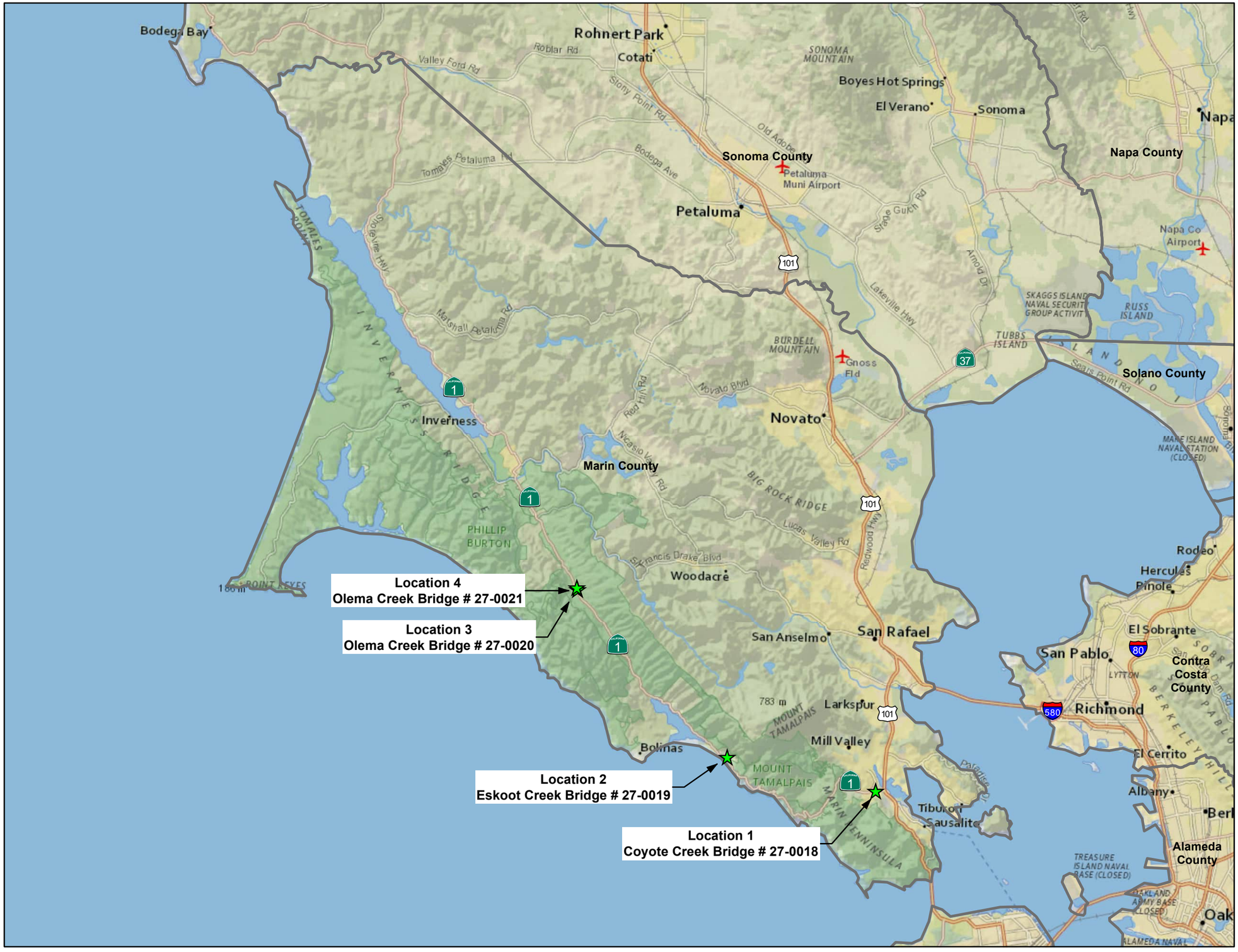
The Honorable Jared Huffman
United States Congress (CA-2)
999 Fifth Avenue, Suite 290
San Rafael, CA 94901

The Honorable Mike McGuire
California State Senate, District 2
50 D Street, Suite 120A
Santa Rosa, CA 95404

The Honorable Damon Connolly
California State Assembly, District 12
3501 Civic Center Drive, Room 412
San Rafael, CA 94903

The Honorable Dennis Rodoni
Marin County Board of Supervisors, District 4
3501 Civic Center Drive, Room 329
San Rafael, CA 94903

Appendix A Figures



LEGEND

★ Project Location

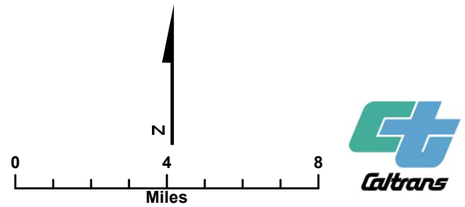
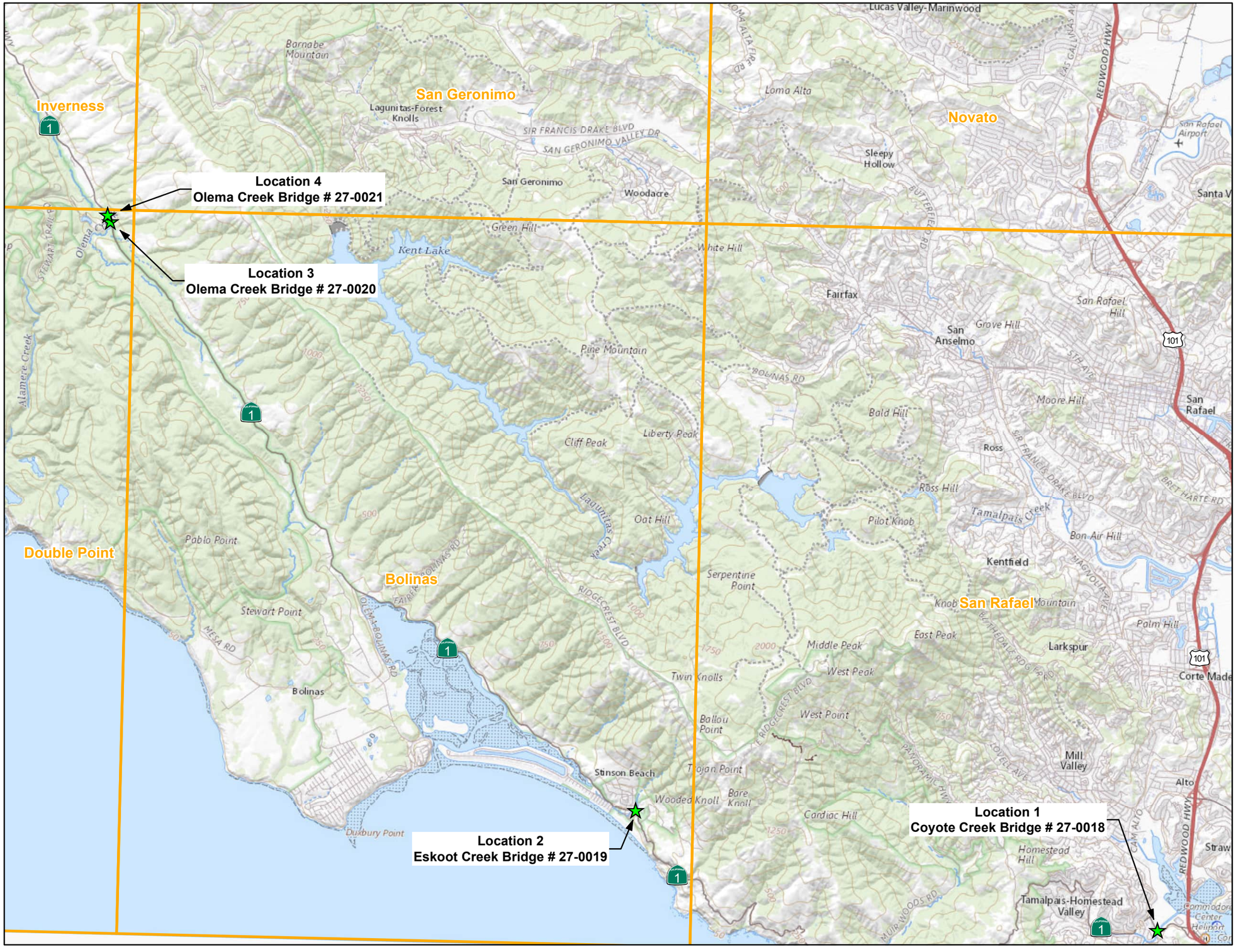


Figure 1-1
Regional Location
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0P960_MRN_1_RAIL_REPLACEMENT\MAPFILES\REPORT\2022\DED\AUGUST\FIG1-1_REGIONAL_LOACTION_0P960.MXD CARCHER 8/22/2022 2:03:58 PM



LEGEND

- Project Location
- USGS 7.5 Minute Quadrangle

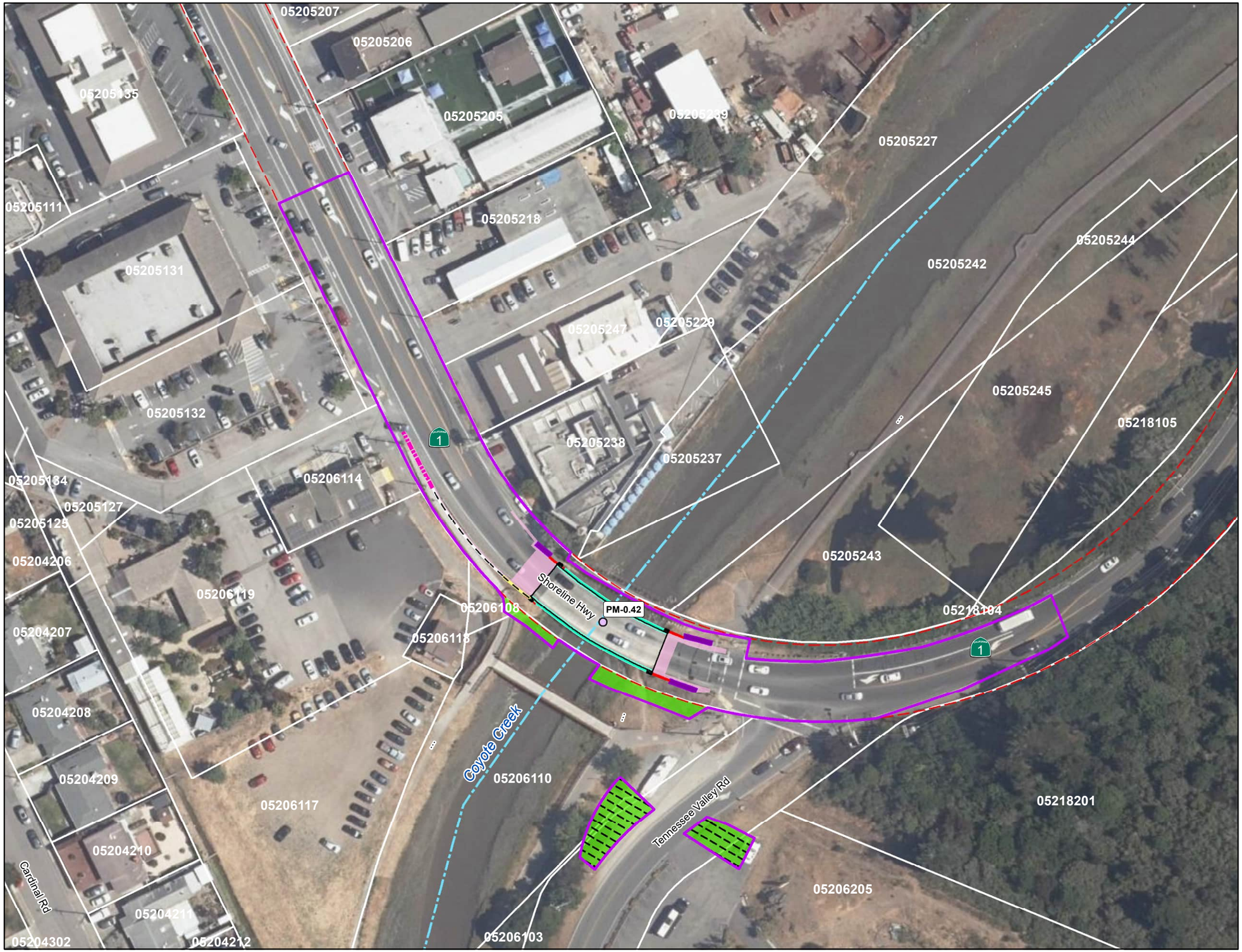
N

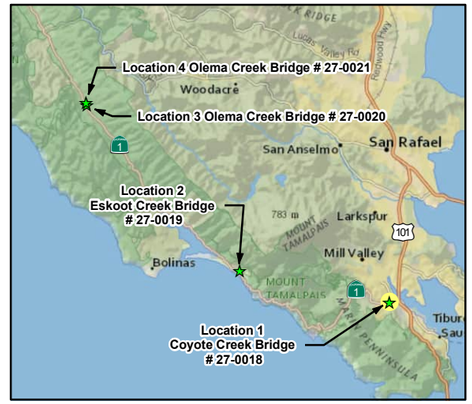
0 6,000 12,000
Feet

Caltrans

Figure 1-2
Project Location
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0P960_MRN_1_RAIL_REPLACEMENT\MAPFILES\REPORT\2022\DED\AUGUST\FIG1-2_PROJECT_LOCATION_0P960.MXD CARCHER 8/22/2022 2:14:41 PM





Legend

- Post Mile
- Caltrans Right of Way
- Marin County Parcels
- Project Footprint
- Existing Bridge
- Widen Bridge and Upgrade Bridge Railing
- Widen Abutment
- Modify Wingwall
- Install Transition Railing
- Install Midwest Guardrail System
- Install Alternative In-Line Terminal System
- Install Crash Cushion
- Remove Existing Asphalt Concrete and Replace with Hot Mix Asphalt
- Staging
- Right of Way Acquisition / Temporary Construction Easement
- Creek

Imagery Source:
Marin County, June 2018

N

0 75 150
Feet

Caltrans

Figure 1-3
Location 1
Coyote Creek Bridge # 27-0018
Project Components
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

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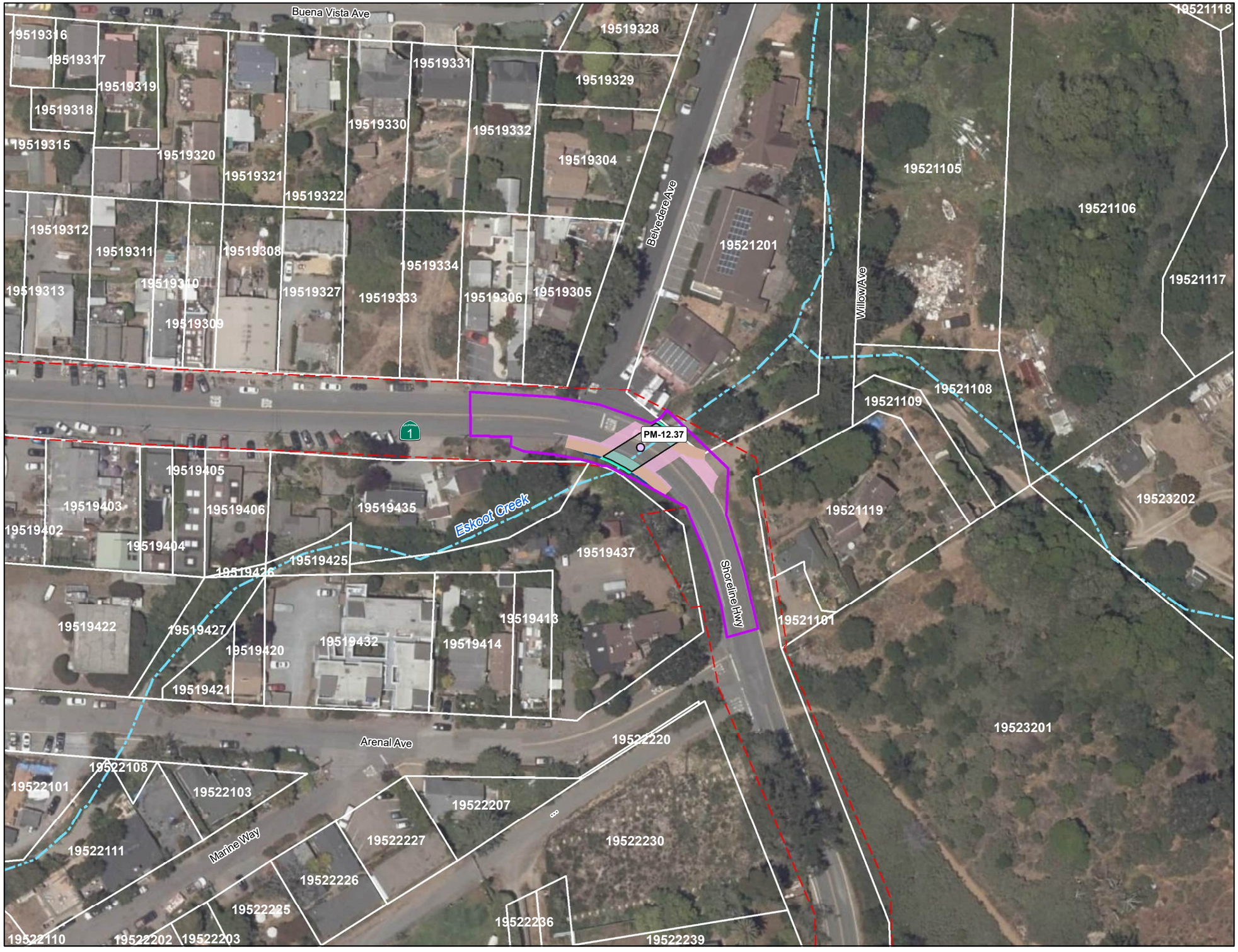

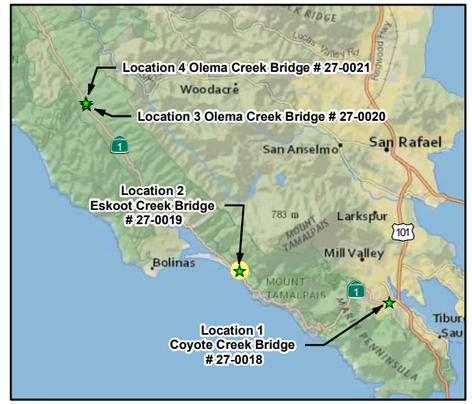

Legend

- Post Mile
- Caltrans Right of Way
- Marin County Parcels
- Project Footprint
- Existing Bridge
- Widen Bridge and Upgrade Bridge Railing
- Install Concrete Barrier Transition
- Replace Sidewalk
- Replace Bridge Sidewalk
- Remove Existing Asphalt Concrete and Replace with Hot Mix Asphalt
- Creek

Imagery Source:
Marin County, June 2018

N

0 75 150
Feet

Figure 1-4
Location 2
Eskoot Creek Bridge # 27-0077
Project Components
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

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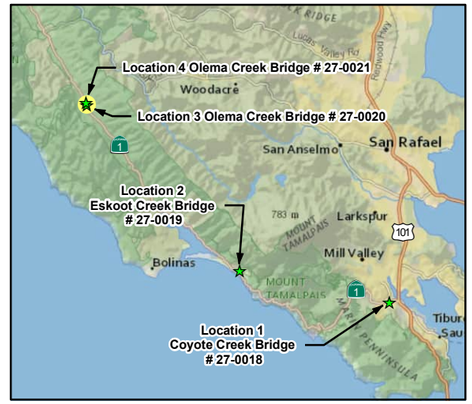

Legend

- Post Mile
- Caltrans Right of Way
- Marin County Parcels
- Project Footprint
- Existing Bridge
- Widen Bridge and Upgrade Bridge Railing
- Modify Wingwall
- Install Concrete Barrier Transition
- Remove Metal Beam Guardrail
- Remove Alternative Flared Terminal System
- Install Transition Railing
- Install Midwest Guardrail System
- Install Alternative In-Line Terminal System
- Install Vegetation Control
- Remove Existing Asphalt Concrete and Replace with Hot Mix Asphalt
- Creek

Imagery Source:
Marin County, June 2018

N

0 75 150
Feet

Caltrans

Figure 1-5
Location 3
Olema Creek Bridge # 27-0020
Project Components
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

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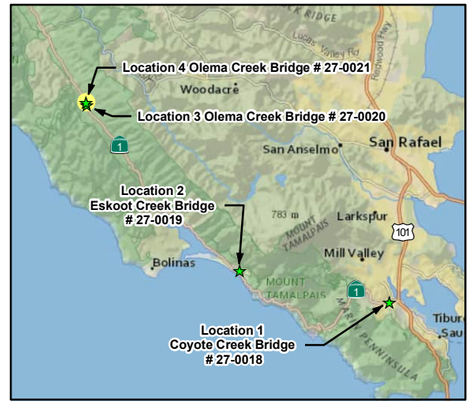

Legend

- Post Mile
- Caltrans Right of Way
- Marin County Parcels
- Project Footprint
- Existing Bridge
- Widen Bridge and Upgrade Bridge Railing
- Install Concrete Barrier Transition
- Remove Metal Beam Guardrail
- Remove Alternative Flared Terminal System
- Install Transition Railing
- Install Midwest Guardrail System
- Install Alternative In-Line Terminal System
- Install Vegetation Control
- Remove Existing Asphalt Concrete and Replace with Hot Mix Asphalt
- Staging
- Right of Way Acquisition / Temporary Construction Easement
- Creek

Imagery Source:
Marin County, June 2018

N

0 75 150
Feet

Caltrans

Figure 1-6
Location 4
Olema Creek Bridge # 27-0021
Project Components
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

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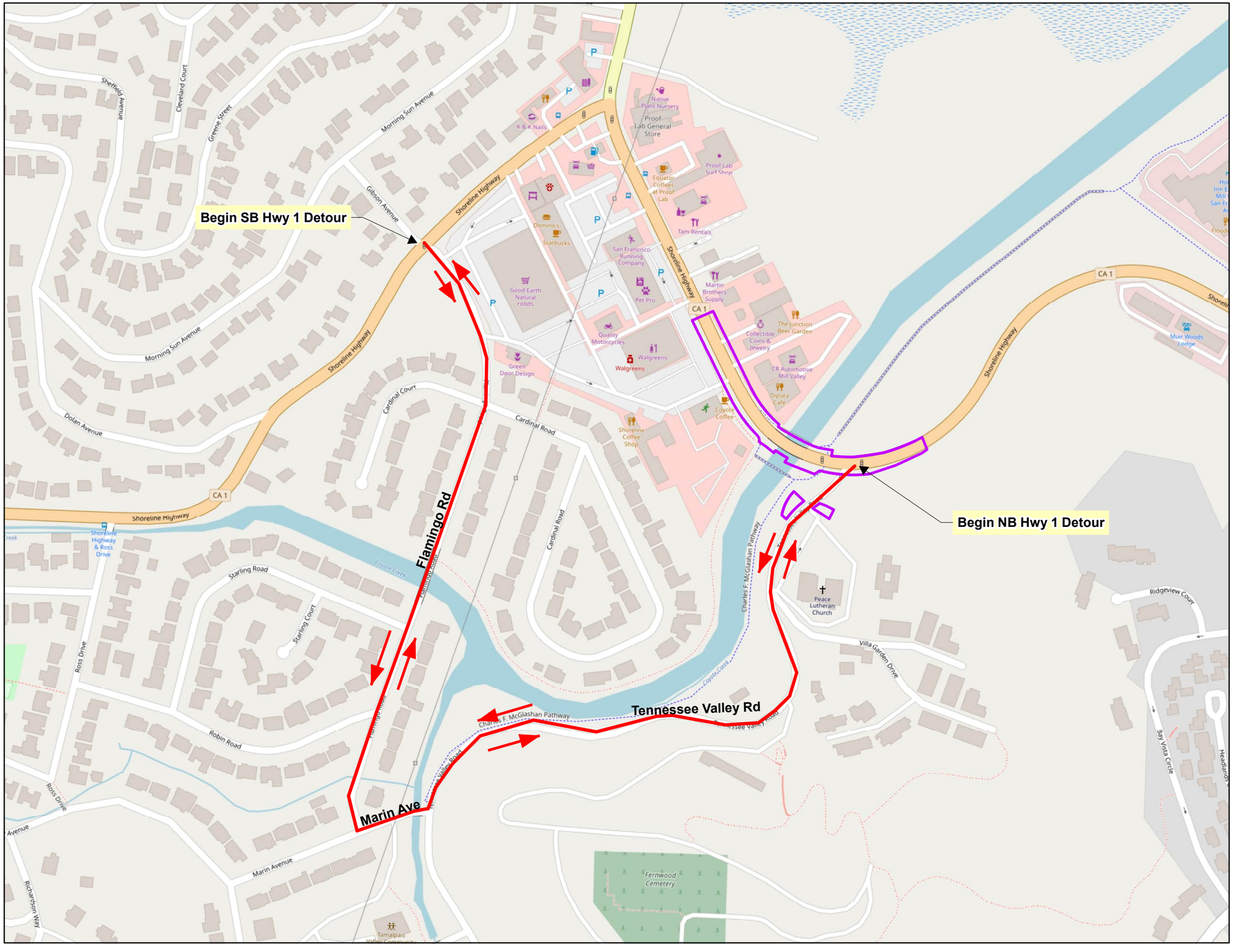
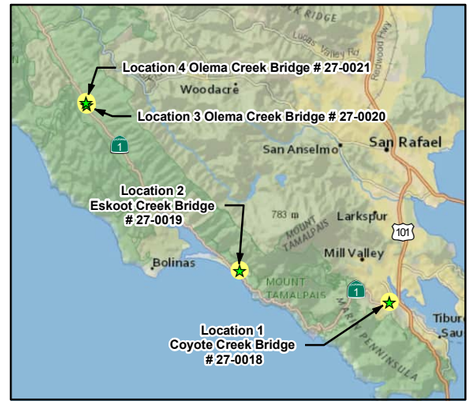




Legend

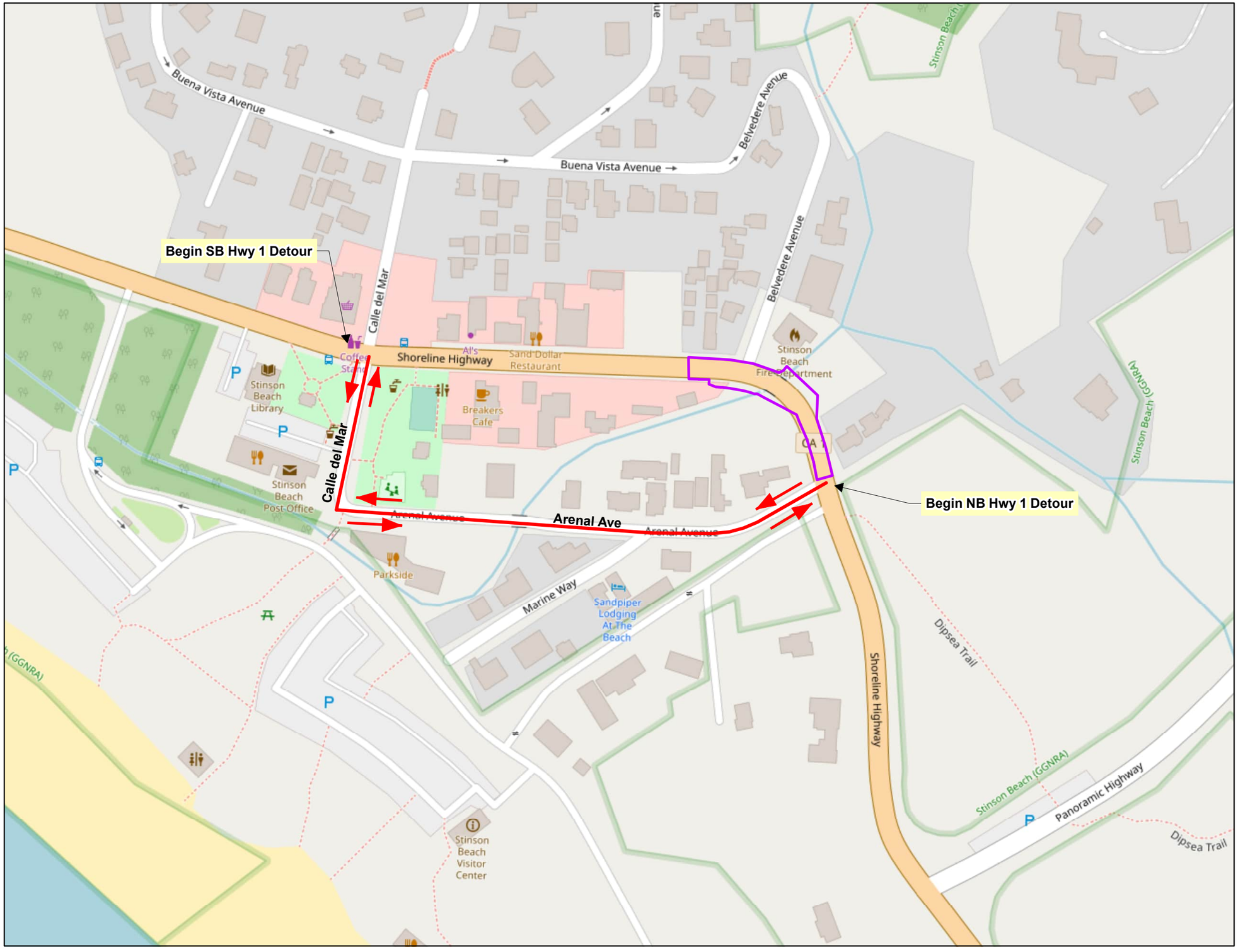
- Project Footprint
- Detour Route

0 250 500 Feet

N

Figure 3-1
Coyote Creek Bridge/Location 1 Optional Detour
State Route 1 Bridge Rail Replacement Project EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0P960_MRN_1_RAIL_REPLACEMENT\MAPFILES\REPORT\2023\DED\04_APRIL\FIG3-1_COYOTE_CREEK_BRIDGE_DETOUR_0P960.MXD CARCHER 4/11/2023 11:22:35 AM



Legend

- Project Footprint
- Detour Route

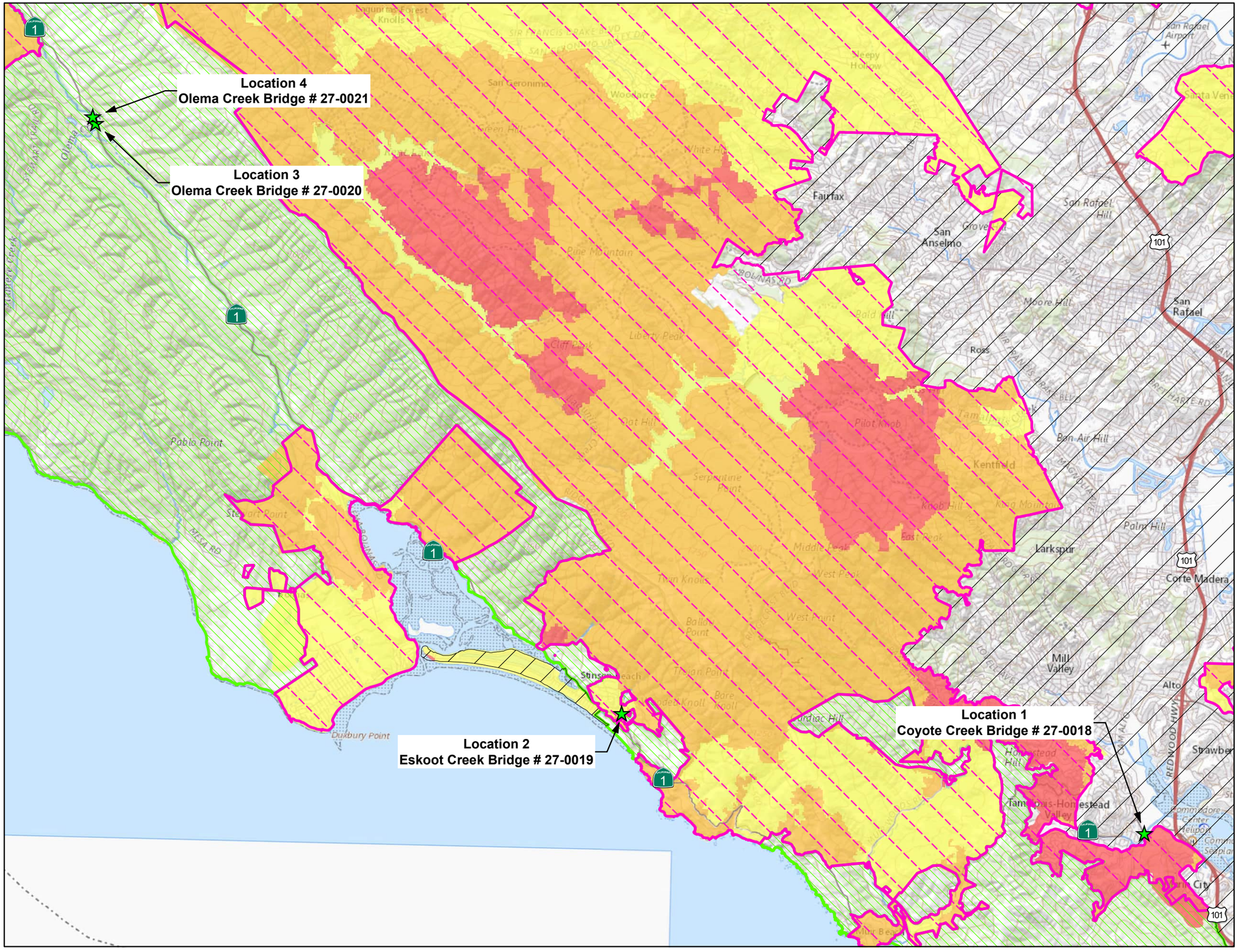
N

0 150 300

Feet

Figure 3-2
Eskoot Creek Bridge/Location 2 Optional Detour
State Route 1 Bridge Rail Replacement Project EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0P960_MRN_1_RAIL_REPLACEMENT\MAPFILES\REPORT\2023\DED\04_APRIL\FIG3-2_ESKOOT_CREEK_BRIDGE_DETOUR_0P960.MXD CARCHER 4/11/2023 11:34:47 AM



LEGEND

- Project Location
- Local Responsibility Area (LRA)
- State Responsibility Area (SRA)
- Federal Responsibility Area (FRA)

CAL FIRE Fire Hazard Severity Zones

- Moderate
- High
- Very High

Sources:
CAL FIRE-FRAP

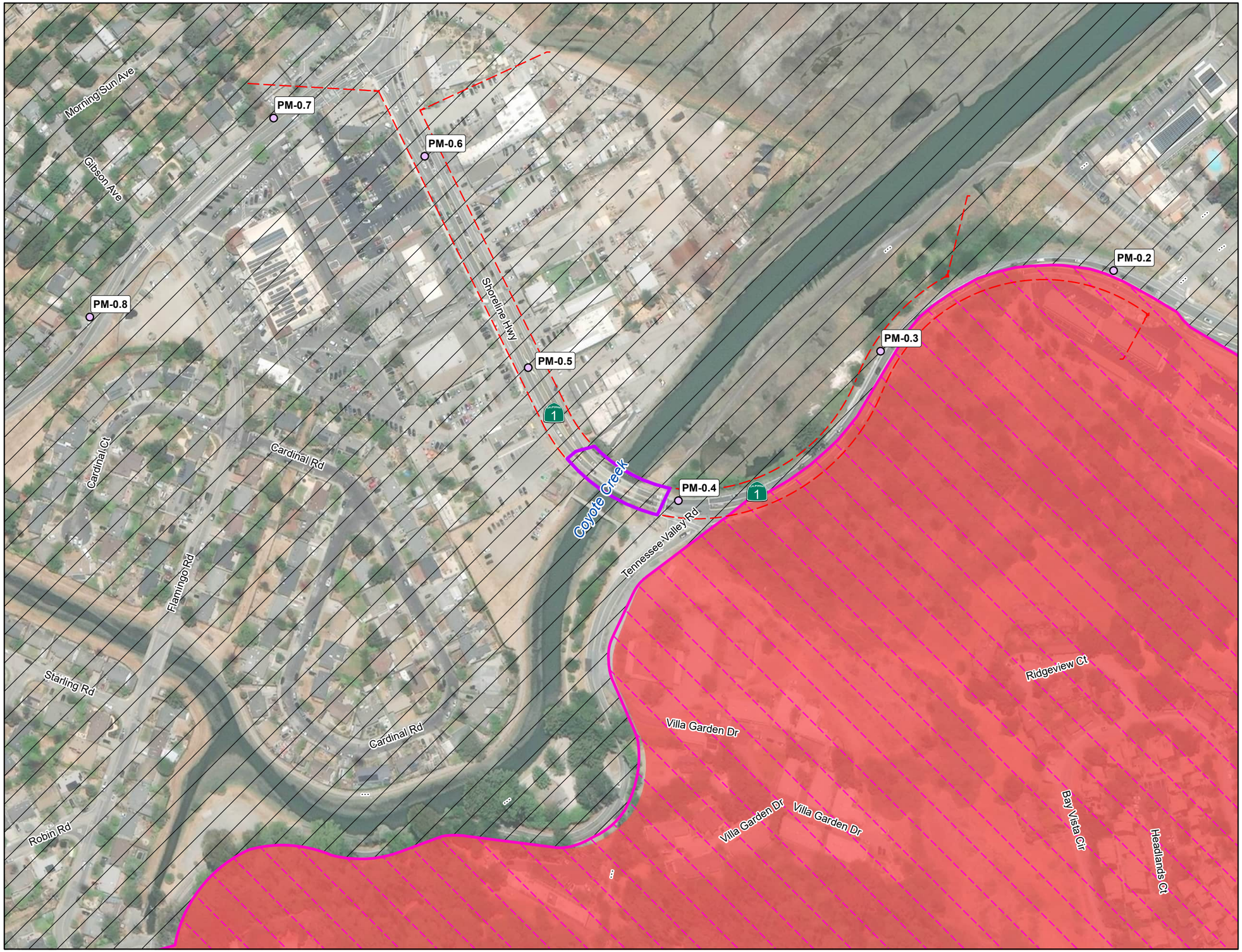
N

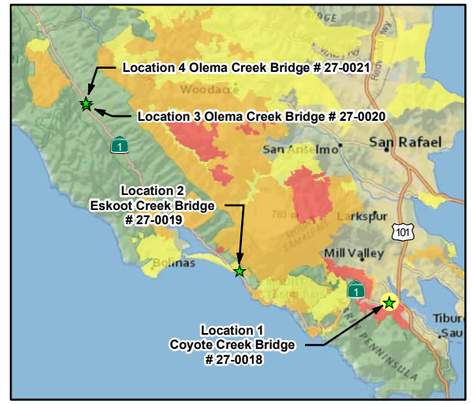
0 6,000 12,000
Feet

Caltrans

Figure 3-3
Fire Hazard Severity Zones
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0P960_MRN_1_RAIL_REPLACEMENT\MAPFILES\REPORT\2022\DED\AUGUST\FIG3-1_FIRE_SUSCEPTIBILITY_MAP_0P960_OVERVIEW.MXD CARCHER 8/29/2022 12:44:21 PM





LEGEND

- Post Mile
- Caltrans Right of Way
- Project Footprint (0.286 acre)
- Local Responsibility Area (LRA)
- State Responsibility Area (SRA)
- Federal Responsibility Area (FRA)

CAL FIRE Fire Hazard Severity Zones

- Moderate
- High
- Very High

Imagery Source:
ESRI, Maxar 4/27/2021

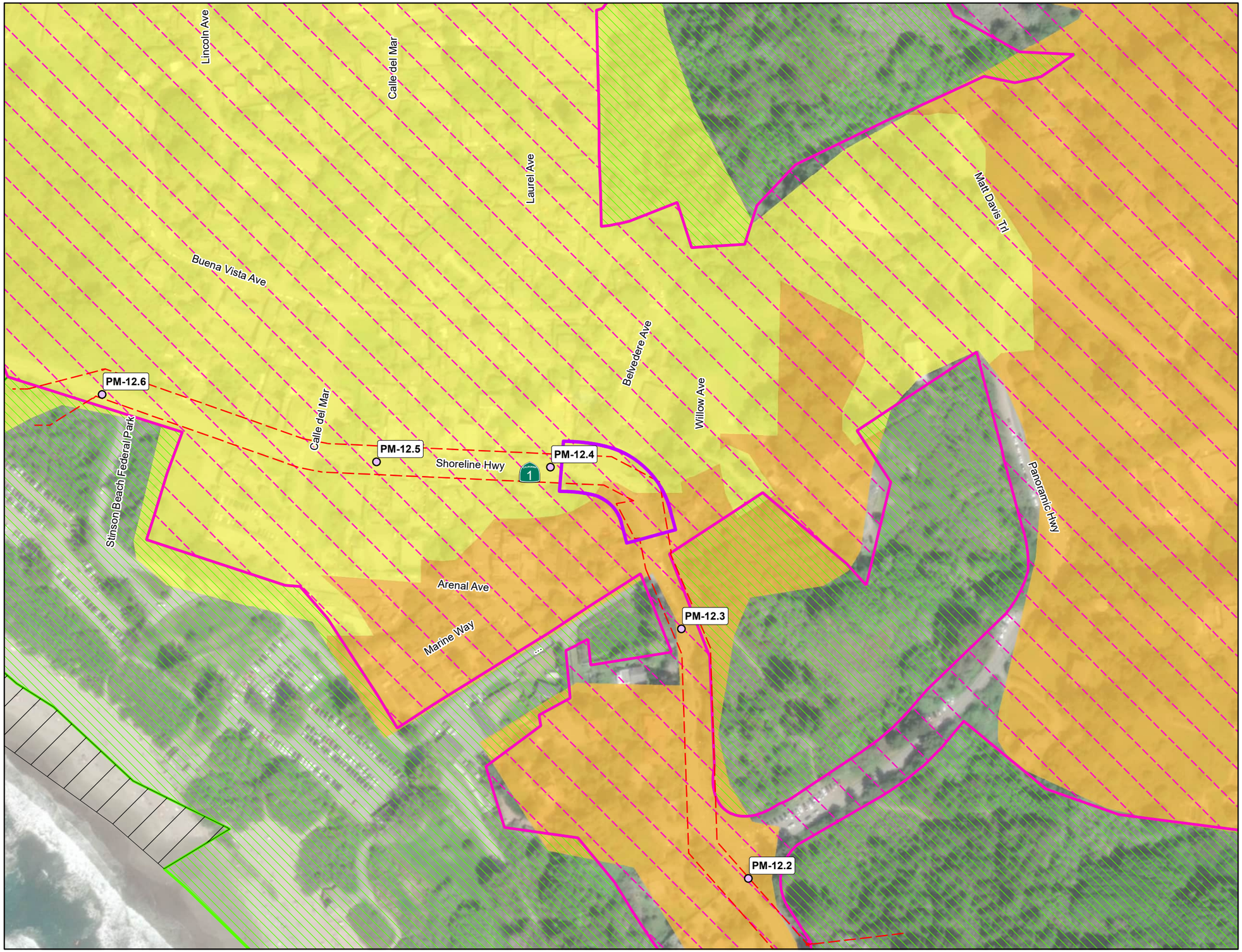
N

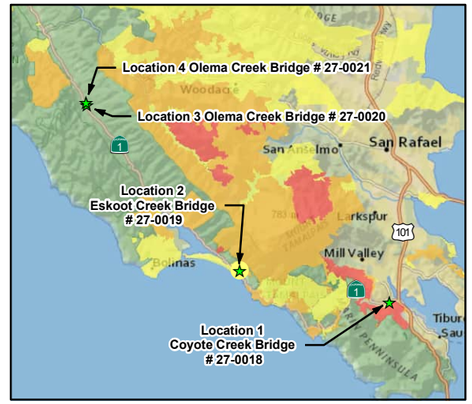
0 200 400
Feet

Caltrans

Figure 3-3a
Fire Hazard Severity Zones
Location 1
Coyote Creek Bridge # 27-0018
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0P960_MRN_1_RAIL_REPLACEMENT\MAPFILES\REPORT\2022\DED\AUGUST\FIG3-1_FIRE_SUSCEPTIBILITY_MAP_0P960.MXD CARCHER 8/29/2022 2:52:49 PM





LEGEND

- Post Mile
- Caltrans Right of Way
- Project Footprint (0.642 acre)
- Local Responsibility Area (LRA)
- State Responsibility Area (SRA)
- Federal Responsibility Area (FRA)

CAL FIRE Fire Hazard Severity Zones

- Moderate
- High
- Very High

Imagery Source:
ESRI, Maxar 4/27/2021

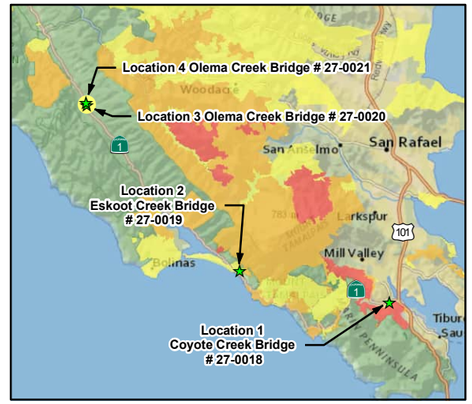
N

0 200 400
Feet

Caltrans

Figure 3-3b
Fire Hazard Severity Zones
Location 2
Eskoot Creek Bridge # 27-0019
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0P960_MRN_1_RAIL_REPLACEMENT\MAPFILES\REPORT\2022\DED\AUGUST\FIG3-1_FIRE_SUSCEPTIBILITY_MAP_0P960.MXD CARCHER 8/29/2022 2:52:49 PM



LEGEND

- Post Mile
- Caltrans Right of Way
- Project Footprint (0.684 acre)
- Local Responsibility Area (LRA)
- State Responsibility Area (SRA)
- Federal Responsibility Area (FRA)

CAL FIRE Fire Hazard Severity Zones

- Moderate
- High
- Very High

Imagery Source:
ESRI, Maxar 4/27/2021

N

0 200 400
Feet

Caltrans

Figure 3-3c
Fire Hazard Severity Zones
Location 3
Olema Creek Bridge # 27-0020
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

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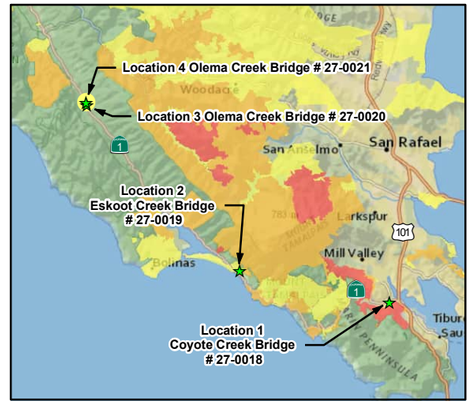

LEGEND

- Post Mile
- Caltrans Right of Way
- Project Footprint (0.504 acre)
- Local Responsibility Area (LRA)
- State Responsibility Area (SRA)
- Federal Responsibility Area (FRA)

CAL FIRE Fire Hazard Severity Zones

- Moderate
- High
- Very High

Imagery Source:
ESRI, Maxar 4/27/2021

N

0 200 400
Feet

Caltrans

Figure 3-3d
Fire Hazard Severity Zones
Location 4
Olema Creek Bridge # 27-0021
State Route 1 Bridge Rail Replacement Project
EA 04-0P960, MRN-1-0.42/12.37/22.81/22.96
Marin County, California

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Appendix B Title VI Policy Statement

California Department of Transportation

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September 2022

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

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

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

TONY TAVARES
Director

Appendix C Summary of Project Features and Avoidance and/or Minimziation Measures

Project Features

- **PF-AES-1, Temporary Fencing:** Use temporary exclusion fencing to protect the roots and canopies of nearby trees from construction-related activities.
- **PF-AES-2, Construction Equipment and Materials Storage:** Construction equipment and materials would be stored in staging areas beyond the direct view of the traveling public and residential properties to the greatest extent feasible.
- **PF-AES-3, Nightwork:** For nightwork, limit construction lighting to the Project footprints for construction-related activities, and use directional lighting, shielding, and other measures as needed to minimize light trespass to adjacent businesses, residences and to the traveling public.
- **PF-AES-4, Vegetation Impacts and Protection:** Reduce impacts to vegetation to the greatest extent possible while allowing the Project to be implemented. Vegetation to remain would be protected from construction activities by temporary fencing when vegetation is close to construction-related activities.
- **PF-AES-5, Revegetate and Reseed Disturbed Areas:** Revegetate disturbed areas with commercially available, locally appropriate, native seed mix and apply erosion control seeding and similar measures to all areas of disturbance where they are beyond paved areas.
- **PF-AES-6, Tree Pruning:** Where the pruning of trees is required to accommodate construction operations, pruning must be under the supervision of a licensed arborist.
- **PF-AES-7, Construction Material Storage:** Construction materials and equipment would be stored in a staging area beyond direct view of the motoring public and residential properties to the greatest extent feasible.
- **PF-AES-8, Minimize Lighting Impacts:** For any night work, limit construction lighting to the Project footprint and use directional lighting and shielding to minimize light trespass to areas outside the Project footprint.

- **PF-AQ-1, Dust Control Measures:** Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 1 affected by construction traffic, and covering soils or materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.

- **PF-AQ-2, Construction Vehicles and Equipment:** Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.

- **PF-AQ-3, Limit Idling:** Limit idling times either by shutting construction-related equipment off when not in use or reducing the maximum idling time to 5 minutes.

- **PF-BIO-1, Seasonal Avoidance:** The Project will develop temporary BMPs in compliance with Standard Specification 13-3.01C(3) and develop and deploy appropriate BMPs consistent with the Rain Event Action Plan at least 48 hours in advance of a forecasted storm that has a 50% probability of rainfall within 72 hours.

- **PF-BIO-2, Wildlife Exclusion Fencing:** Before starting construction, at the discretion of the Caltrans biologist, wildlife exclusion fencing (WEF) may be installed along the Project footprint perimeter in the areas where wildlife could enter the Project site. The final Project plans will depict the locations where WEF will be installed, if needed, and how it will be assembled/constructed. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place at each location until work at that location is complete and will be regularly inspected for stranded animals and fully maintained daily. The WEF will be removed following completion of construction activities.

- **PF-BIO-3, Stormwater Best Management Practices:** In accordance with RWQCB requirements, a Water Pollution Control Plan (WPCP) will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and nonstormwater discharges. At a minimum, protective measures will include the following:

a. Prohibit discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.

b. Maintain equipment to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents. Hazardous materials such as fuels, oils, and solvents will be stored in manufacturer-approved containers in a designated location that is at least 50 feet from aquatic habitats.

c. Service vehicles and construction equipment, including fueling, cleaning, and maintenance, at least 50 feet from aquatic habitat, unless separated by a topographic or engineered drainage barrier.

d. Collect and dispose of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.

e. Maintain spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment

f. Use water trucks and dust palliatives to control dust in unvegetated areas and cover temporary stockpiles when weather conditions require.

g. Protect graded and designated staging areas from erosion using an appropriate combination of approved erosion control items or methods, in accordance with the WPCP, and as stated in the Caltrans Standard Specifications Section 13, Water Pollution Control, and the *Caltrans WPCP Preparation Manual*,

- **PF-BIO-4, Construction Site Management Practices:** The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:

a. Enforce a speed limit of 15 miles per hour in the Project footprint in unpaved and paved areas to reduce dust and excessive soil disturbance.

b. Locate construction access, staging, storage, and parking areas within the Project footprint outside any designated ESA. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.

c. Certify, to the maximum extent practicable, borrow material is nontoxic and weed free.

d. Enclose food and food-related trash items in sealed trash containers and remove them from the site at the end of each day.

e. Prohibit pets from entering the Project footprint area during construction.

f. Prohibit firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

g. Maintain equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents, and develop a Spill Response Plan. Hazardous materials such as fuels, oils, and solvents will be stored in industry or manufacturer-approved containers in a designated location that is at least 50 feet from aquatic habitats.

- **PF-BIO-5, Nighttime Restrictions/Lighting:** Night work would be limited wherever possible. If night work must be performed, lighting will be directed toward the highway to the greatest extent practicable to avoid exposing nocturnal wildlife and their habitats to excessive glare.

- **PF-BIO-6, Avoidance of Entrapment:** To prevent inadvertent entrapment of animals during construction, excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day using plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the BSA overnight will be inspected before they are subsequently moved, capped, or buried.

- **PF-BIO-7, Vegetation Removal:** Vegetation that is within the cut and fill line or growing in locations where permanent structures will be placed will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes, and excavators. If clearing and grubbing occurs during the nesting season (typically between February 1 and September 30), the Caltrans

biological monitor will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance requirements of the MBTA and California Fish and Game Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be removed from the Project footprint to prevent attracting animals to the Project site.

- **PF-BIO-8, Preconstruction Nesting Bird Surveys and Nest Avoidance:** During the nesting season (typically between February 1 through September 30), preconstruction surveys for nesting birds will be conducted by a Caltrans 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 non-game bird nests, a 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. To minimize and avoid take of migratory birds, their nests, and their young, vegetation and tree trimming will be conducted outside of the nesting season, prior to construction when feasible. This work will be limited to vegetation and trees that are within the Project footprint. Additional nesting surveys will be required if work must occur during the nesting season.

- **PF-BIO-9, Replant, Reseed, and Restore Disturbed Areas:** Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with locally appropriate, commercially available native grasses and shrubs species to stabilize and prevent erosion. Where disturbance includes the removal of woody shrubs, native species will be replanted, based on the local species composition.

- **PF-BIO-10, Reduce Spread of Invasive Species:** To reduce the spread of invasive, non-native plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and 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 of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing locally appropriate, commercially available native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project will be covered to the greatest extent practicable with heavy black plastic solarization material until the end of the Project.

- **PF-ENERGY-1, Recycle Waste and Materials:** Recycle nonhazardous waste and excess construction materials offsite to reduce disposal, if feasible.

- **PF-ENERGY-2, Solar Energy:** Use solar energy as the energy source for construction-related equipment, such as, but not limited to, signal boards, if feasible.

- **PF-HAZ-2, Hazardous Material Surveys:** Conduct a bridge survey during Project design phase for asbestos-containing materials and lead-based substances to locate and quantify hazardous materials. Appropriate special provisions would be required, subject to the bridge and would be included in the PS&E package.

- **PF-HAZ-3, Site Investigation for Excavation of Unpaved Areas:** A site investigation for contaminants such as aerially deposited lead would be required for excavation of unpaved surfaces. Appropriate special provisions would be required, subject to the soil sampling results, and would be included in the PS&E package.

- **PF-HAZ-4, Treated Wood Waste:** Wood removed from MBGR will be considered treated wood waste and must be disposed of by the contractor pursuant to Caltrans standard specifications.

- **PF-HYD-1, Construction and Implementation of Erosion Control, Construction Site, and Water Pollution Control Best Management Practices:** Erosion control BMPs would be included in the final Project plans and SSPs to comply with the conditions of the Caltrans NPDES permit. The *Caltrans BMP Guidance Handbook* (Caltrans 2017) would provide guidance for SSPs for measures to Project-delineated ESAs and reduce stormwater discharges. Construction site BMPs would include the following:

    - Soil stabilization

- Sediment control
- Tracking control
- Non-stormwater management measures
- General construction site management
- Stormwater sampling and analysis

Erosion control and water pollution control BMPs would be prepared and implemented during construction to minimize wind- or water-related erosion. BMPs would follow requirements of the RWQCB, and standards outlined in the *Caltrans BMP Guidance Handbook* (Caltrans 2017).

The following restrictions would be implemented to reduce potential impacts on hydrology and water quality:

- Enforce a speed limit of 15 miles per hour for construction vehicles and equipment in unpaved portions of the Project footprint to reduce dust and excessive soil disturbance.
- Locate construction access, staging, storage, and parking areas within Caltrans ROW and outside of delineated ESAs to the maximum extent practicable. Construction staging areas and storage of construction-related equipment and materials would be limited to the minimum necessary to construct the Project. ESAs would be clearly delineated prior to the beginning of construction.
- Certify, to the maximum extent practicable, that imported borrow material is nontoxic and weed-free.
- Enclose food and food-related waste in sealed containers and remove them from the Project footprint at the end of each working day.
- Prohibit pets from entering the Project footprint during construction.
- Prohibit firearms within the Project footprint, except for those carried by authorized security personnel or local, state, or federal law enforcement.

- **PF-HYD-2, Water Pollution Control Program:** A WPCP would be prepared by the contractor and approved by the Caltrans Water Quality Specialist, pursuant to the Caltrans Standard Specifications Section 13, Water Pollution Control, and the

Caltrans WPCP Preparation Manual, and implemented prior to the beginning of construction.

- **PF-NOISE-1, Nighttime Construction:** Construction noise levels are not to exceed 86 dBA L_{max} at 50 feet from the Project footprint from 9:00 p.m. to 6:00 a.m. per 2018 Caltrans Standard Specifications, Section 14-8.02.

- **PF-TRANS-1, Transportation Management Plan:** A TMP would be prepared prior to the beginning of construction and in consultation with the appropriate agencies to avoid or minimize potential impacts to transportation. The TMP would identify traffic delays and alternate detour routes for emergency and medical vehicles associated with essential public services during one-way alternating traffic control and would provide notifications and instructions for rapid response or evacuation in the event of an emergency. The TMP would aid in coordinating and providing further safety measures for those accessing SR 1 within the Project limits during construction and would provide priority to emergency vehicles during traffic control.

- **PF-UTIL-1, Trash Management:** All food-related trash items, such as wrappers, cans, bottles, and food scraps, will be disposed of in closed containers and removed by the contractor at least once daily from the Project limits. A trash reduction system would also be developed by the contractor, approved by Caltrans, and implemented per the Caltrans NPDES Permit and San Francisco RWQCB Cease and Desist Order.

- **PF-UTIL-2, Notify Utility Owners of Construction Schedule to Protect Utilities:** Caltrans would notify all affected utility companies of the construction schedule for the Project so that relocations can be conducted by each utility company as necessary prior to the start of construction.

Avoidance and Minimization Measures

- **AMM-AES-1, Selection of Staging Areas:** Ensure that the establishment of staging areas would not require the removal of anything but weedy non-native vegetation or cause the compaction of any tree roots.

- **AMM-AES-2, Selection of Materials:** In conjunction with the Office of Landscape Architecture, select materials and Project components appropriate for the visual character of the location and to maintain corridor consistency.

- **AMM-BIO-1, Restoration (Replant, Reseed, and Restore Disturbed Areas):** The Project has been designed to avoid and minimize permanent and temporary impacts to terrestrial ESHAs to the maximum degree practicable. Restoration of temporarily disturbed areas, including ESHAs, will be accomplished through onsite revegetation. Restoration of temporary impact areas will occur within the same season they are disturbed so that the duration of disturbance will not exceed 12 months. Restoration of temporarily disturbed areas will be performed at a 1:1 ratio. At the end of each construction season, exposed slopes and bare ground will be reseeded with locally appropriate, commercially available native grasses and shrub species to stabilize and prevent erosion.

- **AMM-BIO-2, Avoid Rare Plants:** The Project footprint may be adjusted where feasible, to completely or partially avoid affecting special-status plant species.

- **AMM-BIO-3, Minimize Disturbance to Rare Plants:** If complete or partial avoidance is not feasible, other minimization measures may be implemented to reduce the severity of the impact to the special-status plant species. These actions may include one or a combination of the following: (1) collection of special-status plant seeds, bulbs, other propagules, or topsoil prior to construction for use in future onsite restoration or enhancement actions; (2) restoration or enhancement of suitable special-status plant habitat onsite; or (3) restoration or enhancement of suitable special-status plant habitat offsite.

- **AMM-BIO-4, Preconstruction CRLF Surveys:** Preconstruction surveys for CRLF will be conducted by an agency-approved biologist no more than 20 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. Suitable nonbreeding aquatic and upland habitat within the Project footprint (Figure 4-3), including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows, will be inspected. Fossorial mammal burrows will be inspected for signs of frog usage, to the greatest extent practicable. If it is determined that a burrow may be occupied by CRLF, USFWS will be contacted and work within the vicinity of the burrow will be stopped per agency permits.

- **AMM-BIO-5, Protocol for Species Relocation and Reporting:** If CRLF is encountered in the immediate work area, the following procedures will be followed:

- The Resident Engineer and agency-approved biologist will be informed immediately. If a frog gains access to a construction zone, work will be halted immediately within 50 feet until the animal leaves the construction zone. The capture and removal of CRLF may only be performed following consultation with USFWS, and captured CRLF will be released within appropriate habitat outside of the construction area within the creek riparian corridor. The release habitat will be determined by USFWS.

- The agency-approved biologist will have the authority to halt work through coordination with the Resident Engineer in the event that a CRLF is discovered within the Project footprint. The Resident Engineer will ensure construction activities remain suspended in any construction area where the agency-approved biologist has determined that a potential take of CRLF could occur. Work will resume when the animal leaves the site voluntarily or is removed following agency consultation, or if it is determined that the CRLF is not being harassed by construction activities. If take occurs, the agency-approved biologist will notify the USFWS contact by telephone and electronic mail within 1 working day.

- The agency-approved biologist 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).

- **AMM-BIO-6, Focused NSO Surveys:** NSO-focused surveys shall be conducted by an agency-approved biologist at both of the Olema Creek Bridge Project areas as they are within 0.25 mile of suitable NSO habitat. If surveys are not completed, work at these locations should be restricted to between August 1 and February 28. For Project work within 0.25 mile of a known nest site or nesting habitat that cannot be scheduled outside of the nesting season and where the 0.25-mile buffers cannot be maintained, reduced buffers should be implemented based on guidance in *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California* (USFWS 2006).

- **AMM-BIO-7, Auditory or Visual Disturbance:** If NSO-focused surveys detect an active nest, no proposed activity generating sound levels 20 or more decibels (dB) above ambient sound levels or with maximum sound levels (ambient sound level plus activity-generated sound level) above 90 dB (excluding vehicle backup

alarms) may occur within 0.25 mile of suitable NSO nesting and roosting during the breeding season (February 1 to August 31). In addition, no human activities will occur within a visual line-of-sight of 40 meters or less from any known nest locations within the Project footprint. These above-ambient sound level restrictions will be lifted after July 31, after which the USWFS considers the above-ambient sound levels as having "no effect" on NSO and dependent young.

- **AMM-BIO-8, Preconstruction Surveys for Bats:** Prior to the start of work, including vegetation removal, a preconstruction bat survey will be performed by an agency-approved biologist. If bats are observed, a bat protection plan should be developed by an agency-approved biologist to minimize potential impacts to roosting bats. Any bats observed in the Project area should be allowed to leave on their own.

- **AMM-CULT-1, Cease Work:** Cease work if cultural resources are encountered during Project-related ground-disturbing activities, have a qualified archaeologist assess the significance of the resource, and implement appropriate avoidance or treatment measures.

  If buried cultural materials are encountered during construction, the need for archaeological and Native American monitoring during the remainder of the Project would be reevaluated by Caltrans and a qualified archaeologist as part of a treatment measure determination. The archaeologist would consult with appropriate Native American representatives in determining suitable treatment for unearthed cultural resources if the resources are Native American in nature.

- **AMM-CULT-2, Stop Work:** Stop potentially damaging work if human remains are uncovered during construction, have a qualified archaeologist assess the significance of the find, and pursue appropriate management.

- **AMM-GEO-1, Site-Specific Geotechnical and Engineering Studies:** Site-specific geotechnical and engineering studies would be prepared during the Project design phase.

- **AMM-NOISE-1, Construction Noise Levels:** The following measures would be implemented to reduce noise levels during construction:

  - The Contract Specifications would include a Special Provision requiring Noise Monitoring and Control which shall include: Provide public outreach or

a communication plan for residents, businesses, and others to get accurate Project information.

- Locate staging and storage areas away from residential areas.
- Consider reducing impact of detours.
- Use quieter alternative construction-related equipment.
- Prevent idling of construction-related equipment near sensitive receptors.
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine within the Project footprint without the appropriate muffler.
- If feasible, use solar or electricity as a power source instead of diesel generators.

- **AMM-REC-1, Temporary Fencing:** Before starting construction, temporary fencing would be installed at the staging area located approximately 0.5-mile south of Eskoot Creek Bridge/Location 2 at PM 12 to prevent construction equipment or personnel from entering the Golden Gate National Recreation Area. The final Project plans will depict the exact location of where this temporary fencing will be installed and how it will be assembled/constructed. The SSPs will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within the temporarily fenced area. The temporary fencing will be removed when the staging area is no longer needed for Project construction.

Appendix D List of Technical Studies and References

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