Sonoma State Route 1 Drainage System Restoration Project

SONOMA COUNTY, CALIFORNIA
DISTRICT 4 – SON – 1 (PM 45.4)
04-1K760/0416000310

Draft Initial Study with Proposed Negative Declaration

Prepared by the
State of California, Department of Transportation

October 2022

Caltrans

General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS) with Proposed Negative Declaration (ND) for the proposed Sonoma State Route (SR) 1 Drainage System Restoration Project (Project), Sonoma County, California. The proposed Project is on SR 1 in Sonoma County at Post Mile (PM) 45.4. The Project proposes to replace the upstream and downstream ends of one severely damaged culvert crossing SR 1 (the portion of this culvert under the highway was replaced with 78-inch corrugated steel pipe [CSP] under emergency authorization [EA] 04-0K1704 in 2016). The existing 54-inch CSP culvert has rusted through and materially failed. The repair of this CSP culvert in its entirety is essential for proper drainage and the integrity of SR 1.

As the lead agency under the California Environmental Quality Act (CEQA), Caltrans has prepared this IS/ND which describes why the Project is being proposed; how the existing environment could be affected by the Project; potential environmental impacts; and proposed Project features and avoidance and minimization measures.

What you should do:

- Please read this document.
- The document, maps, and additional Project information and supporting technical studies are available for review weekdays from 8:00 a.m. to 5:00 p.m. at the Caltrans District 4 Office, 111 Grand Avenue, Oakland, CA 94612. The document is also available to download at the **District 4 Environmental Documents by County Website**. Additionally, the document will be made available at the following two locations in the vicinity of the proposed Project:

  Guerneville Regional Library
  14107 Armstrong Woods Rd
  Guerneville, CA 95446
  Occidental Library
  73 Main St
  Occidental, CA 95465

- We would like to hear what you think. Send comments by the November 29, 2022 deadline to:

  Caltrans, District 4

  ATTN: Arnica MacCarthy, Senior Environmental Planner

  P.O. Box 23660, MS-8B

  Oakland, CA 94623-0660

  Or the Sonoma 1 Drainage Restoration Project email address:

  sonoma1drainagerestorationproject@dot.ca.gov

What happens next:

Per CEQA Section 15073, Caltrans will circulate the IS/ND for review for 30 days from October 31, 2022, to November 29, 2022. During the 30-day public review period, the general public and responsible and trustee agencies can submit comments on this document to Caltrans. Caltrans will consider the comments and respond to them after the 30-day public review period.

After comments have been received from the public and reviewing agencies, Caltrans may grant environmental approval to the proposed Project, conduct additional environmental studies, or 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, the document can be made available in Braille, in large print, on audiocassette, or on computer disk by writing to the aforementioned address or email or by calling **California Relay Service (800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.

An accessible electronic copy of this document is available to download at the District 4 Environmental Documents by County Website.

Initial Study with Proposed Negative Declaration

04-SON-1	45.4	04-1K760
Dist. – Co. – Rte.	PM	E.A.

Project title:	Sonoma State Route 1 Drainage System Restoration
Lead agency name and address:	California Department of Transportation 111 Grand Avenue, Oakland, CA 94612
Contact person and phone number:	Arnica MacCarthy, Senior Environmental Planner (510) 506-0481
Project location:	Sonoma County, California
General plan description:	Highway
Zoning:	Coastal Zone
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements).	• Clean Water Act 404 Nationwide Permit from the U.S. Army Corps of Engineers • Clean Water Act 401 Water Quality Certification from the State Water Resources Control Board • California Coastal Commission State Coastal Development Permit • Local Coastal Development Permit with potential for a joint State Coastal Development Permit • Letter of Concurrence for California red-legged frog, marbled murrelet, northern spotted owl, and Behren's silverspot butterfly from the U. S. Fish and Wildlife Service • Section 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife

The document, maps, project information, and supporting technical studies are available for review weekdays from 8:00 am to 5:00 pm at the Caltrans District 4 Office, 111 Grand Avenue, Oakland, CA 94612. The document is also available to download at the District 4 Environmental Documents by County Website.

10/19/2022

Scott M. Williams
Acting Office Chief, Office of Environmental Analysis
District 4, California Department of Transportation

Date

To obtain a copy in Braille, in large print, on computer disk, or on audiocassette, please contact: Department of Transportation, Attn: Jeffrey Weiss, Public Information Officer 111 Grand Avenue, MS 8-B, Oakland CA 94612: (510) 506-0481 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

Proposed Negative Declaration

Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS) with Proposed Negative Declaration (ND) for the proposed Sonoma State Route (SR) 1 Drainage System Restoration (Project), Sonoma County, California, at post mile (PM) 45.4. The Project proposes to replace portions (upstream and downstream ends) of one severely damaged culvert crossing SR 1 in Sonoma County. The existing 54-inch corrugated steel pipe (CSP) culvert at PM 45.41 has rusted through and materially failed. A portion of this culvert under the highway was replaced with 78-inch CSP under emergency authorization (EA) 04-0K1704 in 2016. The repair of this CSP culvert in its entirety is essential for proper drainage and the integrity of SR 1.

Determination

This proposed ND is included to give notice to interested agencies and the public that Caltrans intends to adopt an ND for this Project. This does not mean that Caltrans' decision regarding the Project is final. This ND is subject to change based on comments received by interested agencies and the public.

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

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

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

Date

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the California Environmental Quality Act (CEQA) lead agency and sponsor for the proposed Sonoma State Route (SR) 1 Drainage System Restoration Project (Project).

The proposed Project is located in Sonoma County, California, on SR 1 at post mile (PM) 45.4 (Figure 1-1). The Project proposes to replace the existing 54-inch corrugated steel pipe (CSP) drainage system with a 78-inch CSP at the upstream and downstream ends of a cross culvert, not including the portion under the traveled way of SR 1. The Project also includes replacement of an existing headwall at the upstream end. An emergency repair project was implemented to repair the portion of the culvert under the traveled way in 2016 and prevent highway failure. This Project will rehabilitate the remaining portions of the culvert, hence conserving the culvert and the highway's structural integrity and ensuring public safety. Additional Project details are presented in Chapter 2. Figure 1-2 shows the location of proposed Project components.

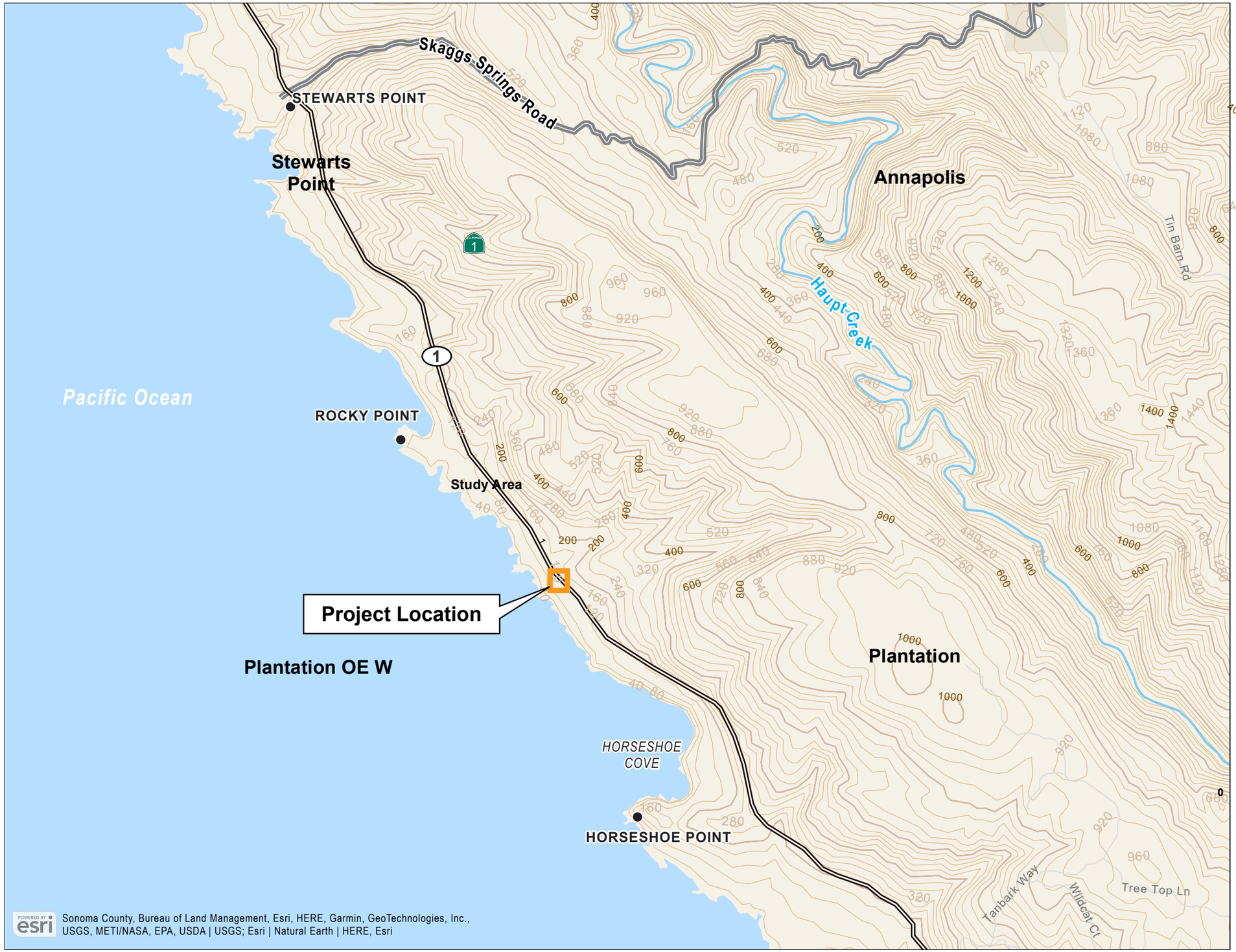
This Project would be funded by the State Highway Operation and Protection Program (SHOPP) under code 201.151. The Project cost is estimated at approximately $3,500,000.

1.2 Purpose and Need

The purpose of this Project is to replace portions of the culvert (PM 45.4) and repair the structural integrity to ensure public safety on SR 1 in Sonoma County.

According to an investigation memorandum from the Office of Geotechnical Design dated June 9, 2014, and a memorandum from the Office of Hydraulic Engineering dated May 29, 2015, the repair of this CSP culvert in its entirety is essential for proper drainage and the integrity of SR 1. An emergency repair project repaired the culvert under the traveled way in 2016. This Project addresses the remaining failed CSP at the upstream and downstream ends outside of the traveled way.

Field surveys from Office of Hydraulics and the Priority Rating Sheet from Maintenance have determined that this culvert is materially failed and hydraulically deficient; its deficiencies consist of deteriorating and rusting pipe lining, inadequate pipe size, erosion of upstream and downstream banks, and debris build-up.



Legend

Project Location

N

0 1,500 3,000

Approximate in Feet

FIGURE 1-1
Project Location
Sonoma 1 Drainage System Restoration Project
EA 04-1K760, SON-1 Post Mile 45.41
Sonoma County, California

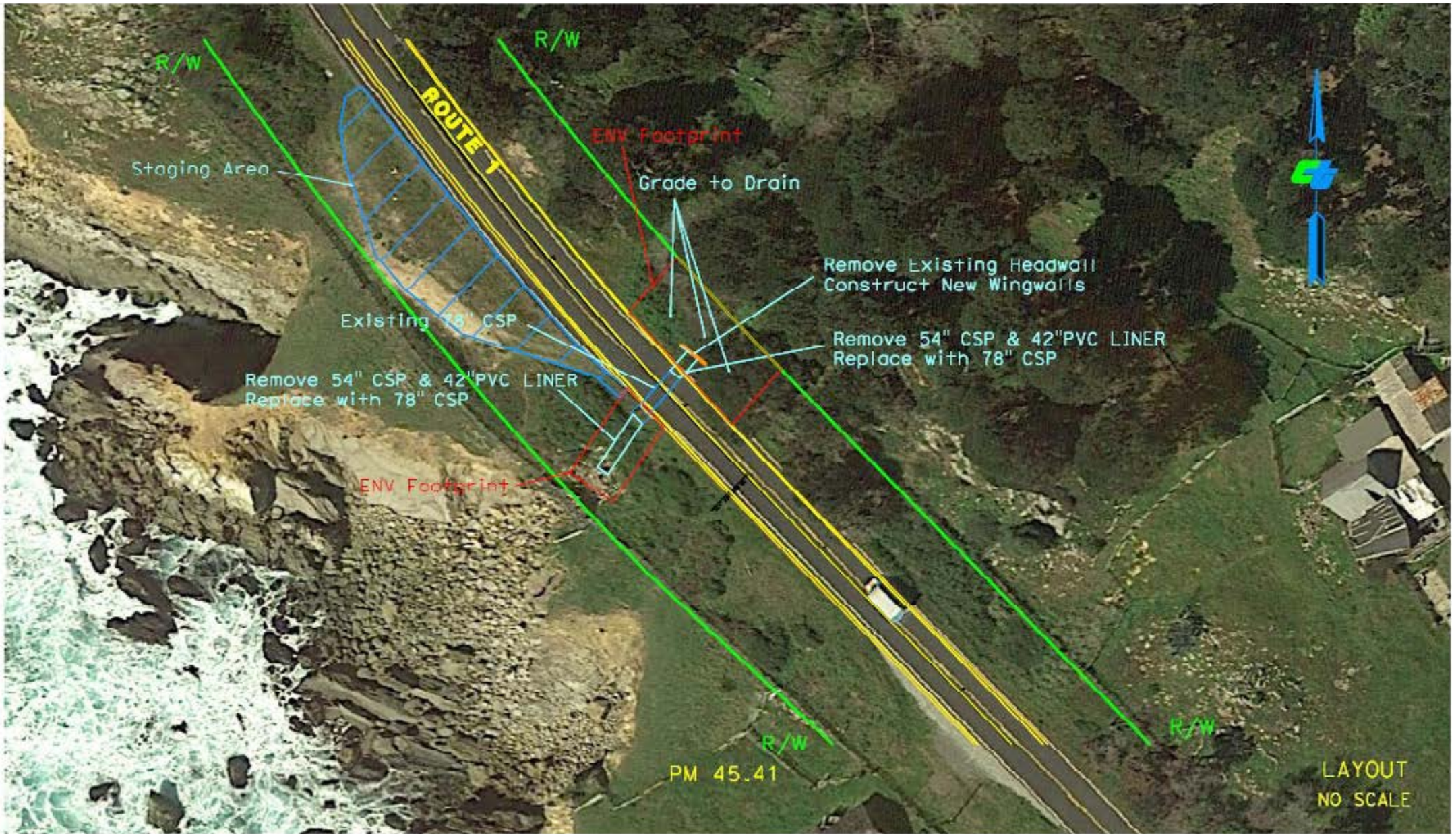


FIGURE 1-2
Project Components
Sonoma 1 Drainage System Restoration Project
EA 04-1K760, SON-1 Post Mile 45.41
Sonoma County, California

Chapter 2 Project Description

2.1 Existing Structure

The existing cross culvert is comprised of a 78-inch CSP with polymetric sheet coating under the traveled way, with lined 54-inch culverts connected upstream and downstream. A drainage inlet (type G2) is located along the southbound shoulder, connecting the 78-inch CSP and the lined 54-inch culvert, while the northbound side has a concrete bulkhead connecting the two segments of culvert. There is an existing headwall at the upstream end.

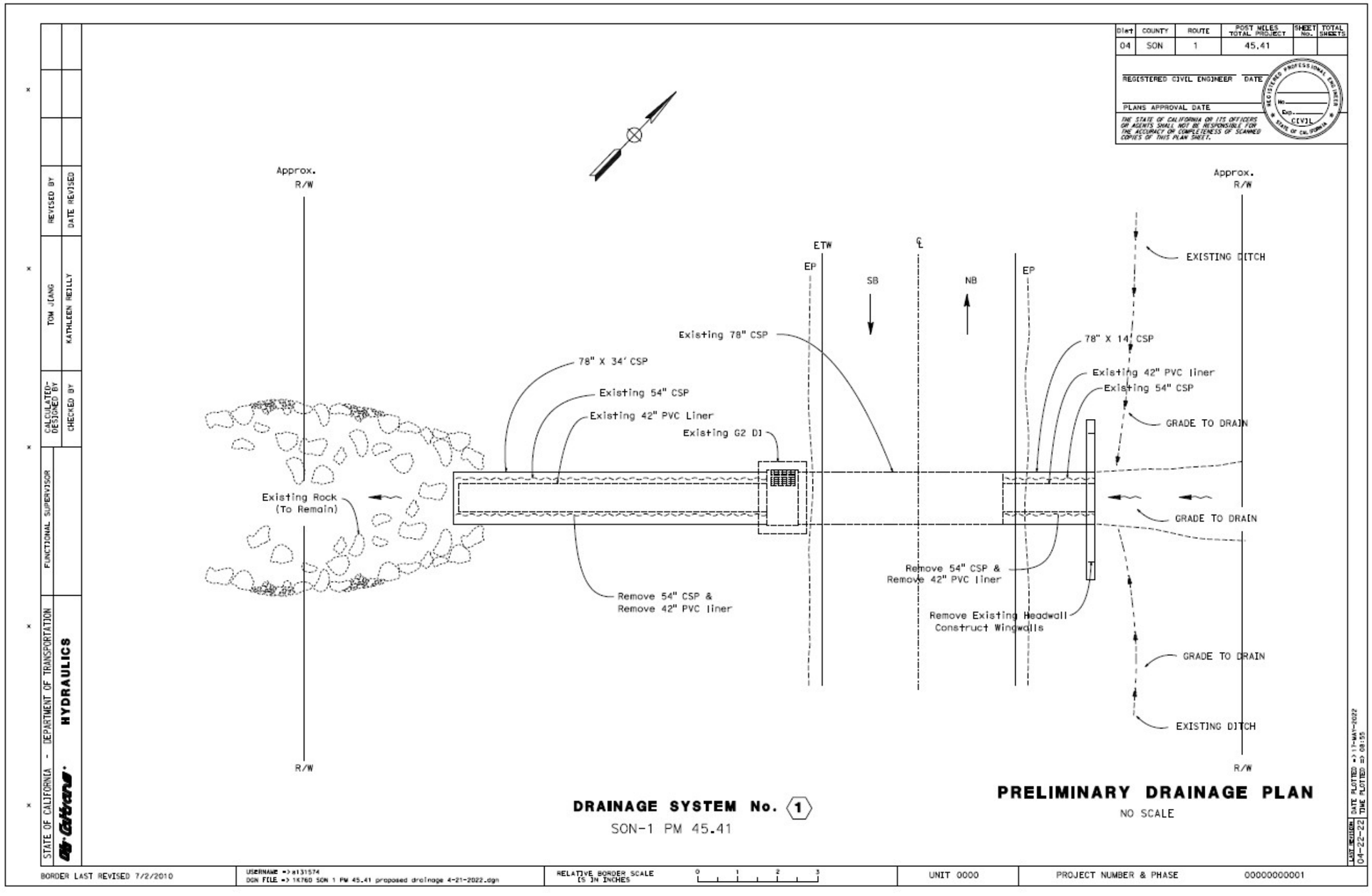
2.2 Proposed Project

This Project will replace the existing 54-inch CSP with a 78-inch CSP at the upstream and downstream ends of the culvert, but not including the portion under the traveled way of SR 1, which was replaced in 2016 under emergency authorization. The existing headwall at the upstream end will be removed and new wingwalls will be constructed to accommodate the larger diameter culvert. In addition, the approach channel and nearby roadside ditches at the upstream end will be regraded/graded to drain to the culvert entrance.

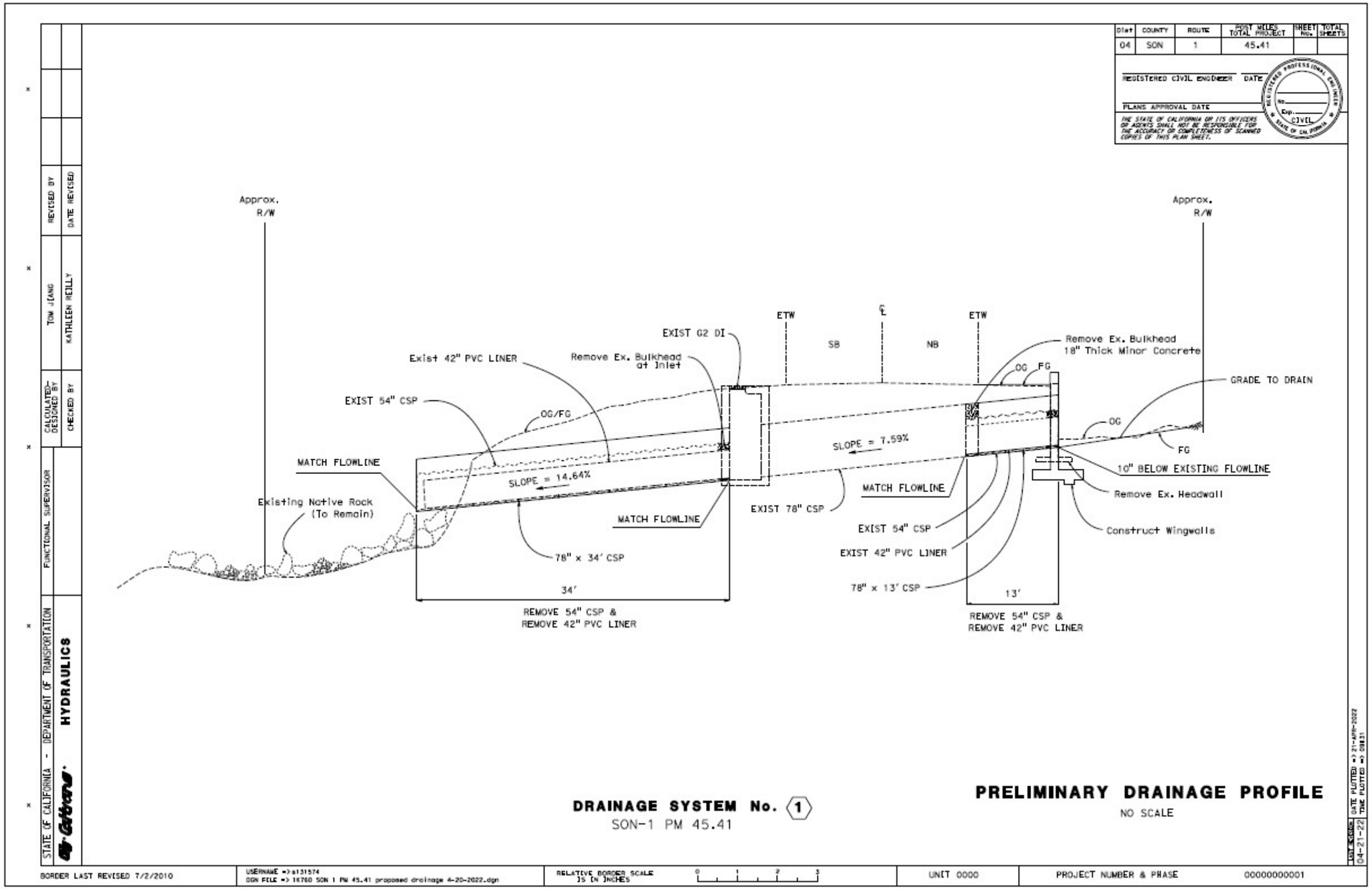
The following pages present photographs of the current conditions at the culvert location, as well as engineering drawings of the proposed drainage system in plan and profile views.

Photo 1. Existing Culvert Condition at the Downstream End

Photo 2. Culvert Inlet and Headwall



Drawing 1. Proposed Drainage System, Plan View



Drawing 2. Proposed Drainage System, Profile View

2.3 Construction Methodology

This section discusses how construction of the proposed Project would likely occur.

2.3.1 Construction Staging and Traffic Management

Construction staging areas may be required to store equipment and materials. Staging will primarily be located within lane closures (one-way traffic control) during non-peak hours or night closure. A staging area within Caltrans right of way (ROW) has been identified for the Project immediately adjacent to the work area (Figure 1-2). This Project will be constructed in two stages, one side of the highway at a time, to minimize the disruption of traffic during construction. All work for this Project would be within Caltrans ROW.

2.3.2 Utility Relocation

Prior to start of work, all existing utilities would be located and protected from possible damage during construction. An underground fiber optic communications cable is buried approximately 1 foot deep in the highway pavement from approximately PM 35 to PM 45. This communications cable was installed by Verizon Inc. and currently is owned and managed by Frontier California Inc. (Frontier). Since the terminus of the cable is sufficiently close to the Project site (PM 45.4), Frontier will need to be contacted to ascertain the location of the cable during later Project phases.

2.3.3 Site Considerations

During construction, vegetation clearing would be confined to areas within the Project footprint, construction access roads, and the staging areas necessary for construction activities.

2.3.4 Construction Equipment

Equipment used for the Project activities would include, but not be limited to, the following: utility truck, backhoes, excavators, dump trucks, jackhammer, saw cutter, generator, vacuum, water truck, street sweeper, air compressor, compactor, cement mixer, concrete pumps, and hydraulic pumps.

2.3.5 Construction Schedule

Construction is anticipated to begin in January 2025 and is expected to last for 1 to 3 months. The Project will be constructed in two stages, one side of the highway at a

time, to minimize traffic disruption. Construction will take place during non-peak hours

2.4 Project Features

Project features, which can include both design elements of the Project and standardized measures (such as best management practices [BMPs]) that are applied to all or most Caltrans projects, and measures included in the standard plans and specifications, or as standard special provisions, are integral to the Project. Such Project features have been considered prior to any significance determinations. These Project features are detailed in Chapter 3 and compiled in Appendix B.

2.5 Permits and Approvals Needed

Table 2-1 lists the permits, licenses, agreements, and certifications that are anticipated to be required for Project construction.

Table 2-1. Required Permits

Agency	Permit	Permit Status
U.S. Army Corps of Engineers	Section 404 Permit	Application submittal anticipated during later Project phase
State Water Resources Control Board	Section 401 Water Quality Certification	Application submittal anticipated during later Project phase
U.S. Fish and Wildlife Service	Letter of Concurrence for California red-legged frog, marbled murrelet, northern spotted owl, and Behren's silverspot butterfly	Application submittal anticipated during later Project phase
California Department of Fish and Wildlife	Section 1602 Lake and Streambed Alteration Agreement	Application submittal anticipated during later Project phase
California Coastal Commission	Coastal Development Permit	Application submittal anticipated during later Project phase
Sonoma County/ California Coastal Commission	Local Coastal Development Permit with potential for a joint Coastal Development Permit	Application submittal anticipated during later Project phase

Chapter 3 California Environmental Quality Act Evaluation

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

3.1 Environmental Factors Potentially Affected

As part of the scoping and environmental analysis carried out for the proposed Project, the following environmental issues were considered, but no impacts were identified: aesthetics, agricultural and forest resources, air quality, cultural resources, geology and soils, land use and planning, mineral resources, noise, population and housing, public services, recreation, tribal cultural resources, and utilities and service systems. The environmental factors marked with an "X" would be potentially affected by this Project. Further analysis of these environmental factors is included in the following sections.

	Aesthetics		Agriculture and Forest Resources		Air Quality
X	Biological Resources		Cultural Resources	X	Energy
	Geology/Soils	X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials
X	Hydrology/Water Quality		Land Use/Planning		Mineral Resources
	Noise		Population/Housing		Public Services
	Recreation	X	Transportation/Traffic		Tribal Cultural Resources
	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 MITIGATED 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:**
Printed Name: Scott M. Williams	**For:**

3.3 CEQA Environmental Checklist

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the proposed Project. In many cases, background studies performed in connection with projects will indicate that there are no impacts to a particular resource. Each resource category subsection that follows begins with a summary table that lists the CEQA checklist questions that pertain to that resource, along with the determinations for each question resulting from the analysis presented in each subsection. A "No Impact" answer in the CEQA Determination column reflects this determination. The words "significant" and "significance" used throughout this chapter are related to CEQA, not National Environmental Policy Act, impacts. The questions in the CEQA checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the Project, and standardized measures that are applied to all or most Caltrans projects, such as BMPs, are an integral part of the Project and have been considered prior to any significance determinations documented. Detailed discussion of these Project features is included in this chapter.

Sections 3.3.1 through 3.3.21 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 are 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 avoidance and minimization measures (AMMs).
- Less than Significant Impact with Mitigation Incorporated: Indicates the potential for a significant impact that would be mitigated with the implementation of a mitigation measure to a level of less than significance.
- Potentially Significant Impact: Indicates the potential for 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?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

CEQA Significance Determinations for Aesthetics

A visual impact assessment (VIA) was completed for the Project (Caltrans 2021a). The VIA was prepared in accordance with the guidelines in the Federal Highway Administration's (FHWA's) *Visual Impact Assessments for Highway Projects* (FHWA 1981). SR 1 is eligible for State Scenic Highway designation throughout the Project limits.

The entirety of SR 1 in Sonoma County is listed as being eligible for designation as a State Scenic Highway. The Project is in the Coast Zone and immediately adjacent to the coast, affording extensive views of the ocean, the general area, and its greater setting. It is considered a sensitive corridor regarding visual resource issues, with few elements detracting from the high quality of the visual landscape. It is within the area for which Caltrans projects are subject to the provisions of the Final Sonoma State Route 1 Repair Guidelines of March 2019 (Guidelines; Caltrans 2019).

a, b, c, d) No Impact

The Project would not have a substantial adverse effect on a scenic vista, or damage scenic resources, or substantially degrade the existing visual character or quality of public views of the site and its surroundings. The Project would be compatible with the existing visual character and quality of the corridor. The Project would not impact or degrade the existing visual character or quality of the Project area.

The Project would only minimally impact roadside vegetation and cause minimal and temporary adverse impacts to the visual environment. Post-construction seeding with a regionally appropriate native seed mix, coupled with the moist coastal environment, will help ensure that native plants are quickly reestablished, thereby largely and quickly erasing the minor and temporary visual impacts of the Project. Opportunities to use materials and design features consistent with those noted in the Guidelines will be pursued as appropriate to further reduce Project impacts. Additionally, AMMs to limit impact to vegetation and other visual resources will be implemented to the greatest extent practicable.

The Project would not adversely affect any designated scenic resource (such as a rock outcropping, tree grouping, or historic property), as defined by CEQA statutes or guidelines, or Caltrans policy. Existing vistas are expected to remain unaltered. The Project elements would not substantially affect the appearance of the highway corridor and would be visually consistent with the character of the surrounding area.

In addition, the Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Avoidance and Minimization Measures

Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts to aesthetics.

AMM AES-1: Revegetate disturbed soil areas and disturbed portions of the riparian corridor with native and climatically appropriate species.

AMM AES-2: Screen appearance of construction equipment and staging areas where feasible.

AMM AES-3: Use staging areas that do not damage existing vegetation or require vegetation or tree removal.

AMM AES-4: Limit light trespass with the use of directional lighting, shielding, and other measures as needed during nightwork.

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 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 on-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

a) No Impact

Within the Project limits the surrounding area primarily consists of rural coastal open space, very low density residential, and some timberland. The area within the Project footprint is not designated as urban and built-up land, up-land, farmland of local importance, other land, or water by the Farmland Mapping and Monitoring Program (California Department of Conservation 2022). Therefore, no impact would occur.

b, c, d e) <u>No Impact</u>

There are no Williamson Act lands within the Project limits. The Project would not conflict with existing zoning for agriculture use or convert Williamson Act lands to non-agricultural uses; therefore, there would be no impact.

No timber or forest lands are in the Project limits or Project vicinity; therefore, the Project would not convert forest land or conflict with existing timberland zoning. Therefore there would be no impact to forests or timberlands.

According to maps prepared pursuant to the Farmland Mapping and Monitoring Program, temporary impacts to land designated as farmland of local importance would not occur during construction. The Project would not convert farmlands to non-agricultural use; therefore, no impact would occur.

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?	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR AIR QUALITY

a, b, c, d) No Impact

This Project is exempt from the requirement to determine air quality conformity because it qualifies as an emergency repair of an existing facility; therefore an air quality study was not required (Lee [Caltrans], pers. comm. 2022).

Construction activities would not conflict with an air quality plan, result in a considerable net increase of pollutants within the region under any federal or state ambient air quality standard, expose sensitive receptors to substantial pollutant concentrations, or generate emissions resulting in excessive odors. There would be no impact because the Project would not result in a cumulatively considerable net increase of any of the criteria.

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?	Less than Significant 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

A natural environment study (NES) was prepared for the Project to evaluate the effects of this Project on biological resources, including sensitive plant and wildlife species (Caltrans 2022a). This section summarizes the findings of the NES.

The biological study area (BSA) consists of the areas surveyed to identify, evaluate, and quantify the biological resources potentially affected by the Project. The BSA is 0.55 acre and encompasses the Project footprint (defined as the area that will be directly impacted by the culvert replacement construction work) with an approximately 50-foot buffer around the footprint; it also encompasses the adjacent staging area (Figure 3-1). The Project limits are within the Caltrans ROW on either side of SR 1.

The location of the Project footprint is 2.6 miles southeast of Stewarts Point. The land around the Project site is a narrow coastal bluff between the Pacific Ocean to the west and steep forested hills on the east side of the highway. Land cover adjacent to SR 1 along the Project route consists primarily of coastal prairie, natural forest/woodland, shrublands, low-density rural development, and recreational park facilities.

The Project location is at the border of a forested draw and a coastal scrub community dominated by coyote brush (*Baccharis pilularis*) on a bluff overlooking the Pacific Ocean. The hillsides are covered in evergreen forests consisting mostly of coast redwoods (*Sequoia sempervirens*), which also form the overstory of the drainage of the unnamed creek that flows through the culvert at the Project site.

The upstream channel in the BSA has a dense overstory of coastal willow (*Salix hookeriana*) and bishop pine (*Pinus muricata*). Most of this overstory is outside of the area where culvert excavation will be performed, though the nearest bishop pine and willow will likely need to be trimmed to allow for equipment access. Some coyote brush also grows in the immediate area of the culvert inlet. The understory consists of riparian species such as common velvetgrass (*Holcus lanatus*), field horsetail (*Equisetum arvense*) and tall flatsedge (*Cyperus eragrostis*).

The roadside on both sides of the highway is covered in ruderal species such as common velvetgrass and wild radish (*Raphanus raphanistrum*). A dense thicket of coyote brush covers the outlet of the culvert.

Databases were used to evaluate potential impacts that could occur to sensitive biological resources as a result of the Project. Database searches included the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) (CDFW 2022a and 2022b); species list and critical habitat from the U.S. Fish and Wildlife Service (USFWS) (USFWS 2022a), a species list from National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries 2022); and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2022). Tables providing a complete listing of plant and animal species from the database searches, and that evaluate the potential for each species to occur in the BSA, are provided in Appendix C. In addition to database queries, biologists conducted field reconnaissance surveys of focused areas of the BSA to assess existing natural resources. No species-specific or protocol-level surveys were conducted for this analysis.

LEGEND

- Footprint (0.048 ac)
- Staging Area (0.159 ac)
- Biological Survey Area (0.55 ac)
- ROW

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

N

0 20 40

Feet

Caltrans

FIGURE 3-1
Biological Study Area
Sonoma 1 Drainage System Restoration Project
EA 04-1K760, SON-1 Post Mile 45.41 Sonoma County, California

The USFWS National Wetlands Inventory database was reviewed for wetlands analysis and potential habitat for special-status aquatic species analysis (USFWS 2022b). Climatic information was obtained from the Western Regional Climate Center (2022) for wetlands analysis.

a) Less than Significant Impact

With implementation of Project features and AMMs identified later in this section (and also compiled in Appendix B), the Project would have a less than significant impact, either directly or through habitat modifications, on any identified candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or as identified by the CDFW, USFWS, or NOAA Fisheries. General Project features that would reduce impacts to special-status species include BIO-1: Biological Monitoring to BIO-6, Worker Environmental Awareness Training. Special-status species potentially present within or adjacent to the BSA are discussed in the following subsections and followed by species-specific AMMs as necessary.

Amphibians

California Red-Legged Frog (*Rana draytonii*): California red-legged frog (CRLF) is federally listed as threatened and is also a state species of concern (SSC). The nearest recorded occurrences are 11.5 miles northwest of the Project location near the mouth of the Gualala River (CDFW 2022a). CRLF prefers aquatic habitat such as ponds, marshes, and creeks with still water for breeding. It also makes use of riparian and upland areas with dense vegetation and open areas for cover, food, and basking.

The coastline between that observance and the Project site is crossed by numerous U.S. Geologic Survey blue line streams that could provide aquatic dispersal habitat, but the presence of permanent water for breeding is doubtful. There is no CRLF breeding habitat in the Project site or its vicinity due to a lack of sufficient water depth and duration. The Project site could still possibly comprise upland dispersal habitat in the wet season. However, culvert construction will be restricted to the dry season.

The Project will result in temporary impacts to 0.207 acre of upland dispersal habitat from culvert replacement activities. Stressors to individual CRLF associated with upland and aquatic habitat loss may include temporary changes in microclimate, including increases in temperature due to removal of vegetative cover and other refugia. Dispersal of CRLF (if present in the BSA) to areas outside of the BSA may occur due to construction-related disturbances or stressors associated with habitat

loss. Equipment and vehicle strikes, or other construction worker activities, may result in injury or death to individual CRLF.

Potential Project impacts to CRLF include potential loss of individuals during vegetation removal, removal of the existing culvert inlet and outlet, and installation of the new culvert inlet and outlet. These operations will temporarily impact 0.159 acre of upland dispersal habitat.

Impacts to suitable aquatic habitat during and immediately after construction are not expected to affect the habitat's long-term suitability to support CRLF should they occur in the Project area in the future. Expansion of the culvert pipe from 54 inches to 78 inches in diameter would improve dispersal ability in the vicinity of the BSA.

Potential Project effects to CRLF include direct effects (potential loss of individuals during grading and heavy equipment movement, and temporary disturbance to dispersal habitat) and indirect effects (turbidity and sedimentation resulting from construction activities). In addition to Project features, the following AMMs would be implemented to avoid and/or minimize potential impacts to CRLF: BIO-1, Timing of Construction; BIO-2, Proper Use of Erosion Control Devices; BIO-3, CRLF Preconstruction Surveys; and BIO-4, CRLF Biological Monitoring.

California Giant Salamander (*Dicamptodon ensatus*): The California giant salamander (CGS) is listed as a California SSC. Within a 5-mile radius of the BSA there are four recorded occurrences of CGS, mostly in permanent streams either flowing into the ocean or the Gualala River (CDFW 2022a). The Project location had standing water when surveyed in March and thus could potentially be breeding habitat.

Potential Project impacts to CGS include potential loss of individuals during vegetation removal, removal of the existing culvert inlet and outlet, and installation of the new culvert inlet and outlet. These operations will temporarily impact 0.048 acre of upland dispersal habitat. Widening the culvert at both ends from 54 inches to 78 inches could be beneficial for dispersal of CGS across SR 1. Impacts to suitable aquatic dispersal and upland habitat during and immediately after construction are not expected to affect the habitat's long-term suitability to support CGS should they occur in the BSA in the future. In addition to the Project features, the AMMs described previously for CRLF (AMMs BIO-1 through BIO-4) will also minimize potential adverse impacts on CGS.

Birds

Northern Spotted Owl (*Strix occidentalis caurina*): The northern spotted owl (NSO) is listed as threatened both federally and statewide. The nearest known NSO activity center is about 2.7 miles northeast of the Project location in the thickly forested hills of the South Fork Gualala River drainage. The proposed Project and BSA are not located within revised critical habitat proposed for this species in the Revised Designation of Critical Habitat for the Northern Spotted Owl (USFWS 2021).

Potential Project effects to NSO include direct effects (exposure to noise disturbance from construction activity). Because the Project is expected to result primarily in construction-related disturbance, the Project's contribution to cumulative effects is expected to be less than significant. Such effects would be reduced by implementation of measures, including avoidance and minimization of habitat impacts and implementation of pre-construction surveys and monitoring to avoid impacts during construction.

In addition to Project features, the following AMMs would be implemented to avoid and/or minimize potential impacts to NSO: BIO-5, NSO Biological Monitoring; BIO-6, Equipment Sound Control Devices; BIO-7, Auditory Disturbance; and BIO-8, Visual Disturbance.

Marbled Murrelet (*Brachyramphus marmoratus*): The marbled murrelet (MAMU) is listed as federally threatened, state endangered, and is a state fully protected species. The nearest recorded occurrence of MAMU is approximately 2.25 miles northeast of the Project site. At this location four below-canopy detections were made in 1999 at Clipper Mill Bridge, along the south fork Gualala River, about 2 miles east of Stewarts Point (CDFW 2022a).

Critical Habitat for MAMU was designated by the USFWS for the Bishop pine forests of Salt Point State Park about 0.6 mile southeast of the Project site. Therefore, MAMU could occur in or near the Project footprint. However, there is no evidence that MAMU nests in bishop pines within the BSA.

Potential Project effects to MAMU include direct effects (exposure to noise disturbance from construction activity). The Project will likely not result in the loss of nesting habitat for the species as they tend to avoid nesting in the immediate vicinity of the coast and roadways. In addition to the Project features, AMM BIO-9: MAMU

Biological Monitoring would be implemented to avoid and/or minimize potential impacts to MAMU.

Insects

Behren's Silverspot Butterfly (*Speyeria zerene behrensii*): The Behren's silverspot butterfly (BSB) is listed as federally endangered. The nearest known extant BSB occurrence was observed about 2.25 miles northwest of the BSA (CDFW 2022a). Suitable habitat for *Viola adunca*, the larval host plant for BSB, occurs within portions of the BSA, including coyote brush coastal scrub observed during the vegetation characterization surveys.

Stressors to individual BSB associated with habitat loss may include temporary changes in microclimate, including increases in temperature due to removal of vegetative cover and other refugia. Dispersal of BSB (if present in the BSA) to areas outside of the BSA may occur due to construction-related disturbances or stressors associated with habitat loss. The Project may also result in fugitive dust and other reductions in air quality that may reduce habitat quality in host plants. Equipment and vehicle strikes may result in injury or death to individual BSB.

Occurrence of BSB in the BSA is not expected but cannot be ruled out with complete certainty. Negative findings of the pre-construction survey for *Viola adunca* would indicate that the BSA does not contain suitable breeding habitat for BSB. However, suitable foraging habitat may still be present. In addition to the Project features, AMM BIO-19, Pre-construction Survey for *Viola adunca*, would be implemented to avoid or minimize potential impacts to BSB.

Other Species

Other species listed as endangered or threatened under the federal Endangered Species Act or California Endangered Species Act, species defined by CDFW as SSCs, and plant species included in CNPS' Online Inventory of Rare and Endangered Plants were eliminated from further consideration based on the BSA being outside of the species' range, and/or no suitable habitat being identified in the BSA. The species tables in Appendix C present the rationales for concluding that these species have no potential to occur in the BSA.

b) <u>Less than Significant Impact</u>

The Project would not have a substantial, adverse effect on riparian habitat or environmentally sensitive natural communities.

SENSITIVE NATURAL COMMUNITIES

Section 30240(a) of the California Coastal Act (CCA) calls for the protection of environmentally sensitive habitat areas (ESHAs). ESHAs, as defined in the CCA, include wetlands, waters and riparian vegetation communities, and other habitats that support special-status or rare species. Section 30240(a) states, "ESHA shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." ESHAs within the BSA include coastal wetlands and streams, riparian vegetation, and special-status species habitats.

Both the U.S. Army Corps of Engineers (USACE) (per Section 404 of the Clean Water Act) and the California Coastal Commission (CCC) (California Code of Regulations Section 13577[b]) rely on the USACE definition of a wetland with the presence of three parameters: wetland plant species, hydric soil, and wetland hydrology. The USACE requires all three parameters to be present for an area to be defined as a wetland, but the CCC requires just one. A wetland delineation was conducted on July 14, 2022. While the BSA upstream of the culvert is dominated by wetland plant species, the area lacks hydric soils and wetland hydrology. Therefore, this area qualifies as a CCC wetland but not a USACE 404 jurisdictional wetland. Downstream of the culvert, the channel is very steep and rocky, and there are no wetlands present.

No permanent structures or modifications will be made to ESHAs. The Project would have temporary direct impacts to the following ESHAs: approximately 0.022 acre of CCC-designated riparian habitat upstream of the culvert inlet within Caltrans ROW (which will only be impacted by trimming of willows in the immediate vicinity of the Project footprint) and 0.008 acre of riverine waters through the widening of the culvert inlet and outlet (refer to Figure 3-2, which is reprinted from the Project's Aquatic Resources Delineation memorandum [Jacobs 2022]).

Caltrans has minimized Project-related impacts to the greatest extent feasible and will implement Project features and AMMs to minimize potential effects to ESHAs.

c) <u>Less than Significant Impact</u>

The CCA Section 30121 identifies wetlands 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 implementation of Project features and AMMs identified later in this section (and also compiled in Appendix B), the Project would have a less than significant impact, either directly or indirectly on any state protected wetlands in the project footprint by either removal, filling, hydrological interruption, or other means.

d) No Impact

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. Therefore, there would be no impact.

e) No Impact

This Project would not conflict with any local policies or ordinances protecting biological resources; therefore, there would be no impact.

f) No Impact

This 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. Therefore, there would be no impact.

Project Features

Caltrans would incorporate the following standard Project features into the Project to offset or avoid potential impacts to biological resources:

Project Feature BIO-1: Biological Monitoring: The Project biologist will conduct pre-construction surveys for federally and state-listed species, and the Project biologist will be present during construction activities including vegetation clearing and grubbing, as required. If at any point any listed species is discovered within the Project limits, the agency-approved biologist, through the Resident Engineer or his/her designee, will halt all work within 50 feet of the plant or animal and contact the corresponding agency (USFWS or CDFW) to determine how to proceed.

Project Feature BIO-2: Vegetation Removal: Whenever possible, vegetation removal will be scheduled between October 1 and January 31 to avoid impacts to nesting birds. If vegetation removal should occur between February 1 and September 30, then a qualified biologist or biological monitor will survey for nesting birds.

LEGEND

- Aquatic Resource Delineation Study Area (0.36 acre)
- Sample Point
- Caltrans Right of Way
- OHWM_Transect
- 1-foot contour
- Flow Direction
- California Fish and Game Code Section 1600 Jurisdictional Boundary

Aquatic Resources

- Riverine (0.008 AC, 52 LF)
- Culverted Waters (70 LF)
- CCC Riparian (0.022 AC)

Note:
AC = Acre
LF - Linear feet

Delineators:
Kevin Fisher & Jonathan Hogg
July 14, 2020

Imagery Source:
ESRI, Maxar 3/20/2021

N

0 20 40
Feet

Caltrans

FIGURE 3-2
Aquatic Resource Delineation Map
Sonoma 1 Drainage System Restoration Project
EA 04-1K760, SON-1 Post Mile 45.41
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\1K760\GIS\MAPFILES\REPORT\2022\ARDR\JULY\FIG4_AQUATICRESOURCESDELINEATION_1K760.MXD ED035443 8/19/2022 10:37:35 AM

Project Feature BIO-3: Implementation of Best Management Practices. A Storm Water Pollution Prevention Plan may be needed depending on extent of the disturbed soil areas. However, erosion control BMPs will be included in the plans and special provisions to comply with the requirements of the RWQCB general construction permit. The Caltrans BMP Guidance Handbook will provide guidance for design staff to include provisions in construction contracts for measures to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. Protective measures will include, at a minimum:

- Disallowing any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses.
- Keeping vehicle and equipment fueling and maintenance operations at least 50 feet away from watercourses, except at established commercial gas stations or an established vehicle maintenance facility.
- All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 50 feet from any downstream riparian habitat, aquatic habitat, culvert, or drainage feature, or will be removed from the site at the end of the day.
- Dedicated fueling areas will be protected from storm water run-on and will be located at least 50 feet from downslope drainage facilities and water courses, if this is not possible then fueling will be conducted as stated in the RWQCB general construction permit and in the Caltrans BMP Guidance Handbook.
- Fueling must be performed on level-grade areas. On-site fueling will only be used when and where it is impractical to send vehicles and equipment off-site for fueling. When fueling must occur on-site, the contractor will designate an area to be used subject to the approval of the Resident Engineer. Drip pans or absorbent pads will be used during on-site vehicle and equipment fueling.
- Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.
- Dust and erosion control measures will be implemented consistent with the RWQCB General Construction Permit and the Caltrans BMP Guidance Handbook.

- Installing coir rolls, straw wattles, or other erosion control items per guidance in the Caltrans BMP Guidance Handbook during construction to capture sediment.
- Protecting graded and designated staging areas consistent with the RWQCB General Construction Permit and the Caltrans BMP Guidance Handbook.

Project Feature 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:

- Enforcing a speed limit of 15 miles per hour for Project vehicles in unpaved portions of the site to reduce dust and excessive soil disturbance.
- Locating construction access, staging, storage, and parking areas within the Caltrans ROW. 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.
- Certifying, to the maximum extent practicable, any borrow material to be non-toxic and weed free.
- Enclosing food and food-related trash items in sealed trash containers and removing them from the site at the end of each day.
- Prohibiting all pets from entering the Project area during construction.
- Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

Project Feature BIO-5: Invasive Weed Control: To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. 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. If 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 them 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 native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project area will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project.

If work occurs in sensitive habitat, vehicles and equipment would be thoroughly cleaned before arriving on the site to prevent the spread of noxious weeds from other locations.

Project Feature BIO-6: Worker Environmental Awareness Training: Prior to the start of construction, the Project biologist will provide a training session for all work personnel to identify any sensitive species that may be in the area, their basic habits, how they may be encountered in their work area, and procedures to follow when they are encountered. Any personnel joining the work crew later will receive the same training before beginning work on site. Upon completion of the education program, employees will sign a form stating they attended the program and understand all protection measures. A pamphlet that contains images of sensitive species that may occur within the Project and notes key avoidance measures, as well as employee guidance, will be given to each person who completes the training program. These forms will be made available to the resource agencies with jurisdiction upon request.

Avoidance and Minimization Measures

Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts to biological resources.

AMM BIO-1: Timing of Construction. Culvert replacement will occur during the dry season (April 15 to October 31), when CRLF are most likely to be estivating in moist refuges and not dispersing through the Project area. When culvert replacement activities must take place between November 1 and May 31, Caltrans will ensure that daily monitoring by the Project biologist is completed for the CRLF.

No construction activities will occur during rain events or within 24 hours following a rain event. Prior to construction activities resuming, the Project biologist will inspect the action area and all equipment/materials for the presence of CRLF.

AMM BIO-2: Proper Use of Erosion Control Devices. To prevent CRLF from becoming entangled or trapped in erosion control materials, plastic monofilament netting (i.e., erosion control matting) or similar material will not be used on site. Acceptable substitutes would include coconut coir matting or tackified hydroseeding compounds.

AMM BIO-3: CRLF Pre-Construction Surveys. Pre-construction surveys for the CRLF will be conducted by the Project biologist within 14 calendar days of the initiation of Project activities in suitable upland habitat prior to ground-disturbing activities, vegetation removal, and wildlife exclusion fence (WEF) installation. Surveys will be conducted as outlined in the 2005 USFWS revised CRLF survey guidelines. Access to habitat during surveys may be limited by appropriate safety measures and protocols (USFWS 2005).

Pre-construction surveys will include:

- Foot surveys of potential CRLF habitat within the Project limits and accessible adjacent areas (within at least 50 feet of Project limits).
- Investigation of potential cover sites (burrows, rocks, soil cracks, vegetation, and other potential refuge habitat) and any areas of disturbed soil for signs of CRLF.

Native vertebrates found in cover sites within the Project limits will be documented and, if handling is allowed, relocated to an adequate cover site in the vicinity. Species which cannot be relocated due to special protection status will be addressed in coordination with the appropriate agency(ies) with jurisdiction.

AMM BIO-4: CRLF Biological Monitoring. During construction in and near potential CRLF habitat, the following protocols will be observed by the Project biologist during construction monitoring:

- Within 24 hours prior to initial ground-disturbing activities, portions of the Project footprint where potential CRLF habitat has been identified will be surveyed by a Project biologist(s) to clear the site of CRLF moving above ground or taking refuge in burrow openings or under materials that could provide cover.
- A Project biologist(s) will be present during all initial ground-disturbing activities and vegetation removal in suitable refugia habitats for the CRLF to monitor the removal of the top 12 inches of soil.
- If potential aestivation burrows are discovered, the burrows will be flagged for avoidance.
- After a rain event, and prior to construction activities resuming, a Project biologist will inspect the work area and all equipment/materials for the presence of CRLF.

- Upon discovery of a CRLF individual(s) in an active construction area, all work will cease within a 50-foot radius of the CRLF. The CRLF will be allowed to leave the site on its own; or if the CRLF does not leave on its own, it will be relocated as close to the Project site as feasible and if necessary, with permission from an adjacent property owner; and placed in a natural burrow by a Project biologist with the appropriate USFWS 10(a)1(A) handling permit.

The USFWS will be notified by phone and email within one working day of any CRLF discovery in the Project area.

AMM BIO-5: NSO Biological Monitoring. Caltrans will submit the names and qualifications of the Project biologist(s) for USFWS approval at least 30 calendar days prior to initiating construction activities for the proposed Project. Only USFWS-approved Project biologists will implement the monitoring duties outlined in the Project description. The USFWS-approved biologist(s) will be onsite during all ground-disturbing activities. The Project biologist(s) has authority to contact the Resident Engineer or his or her designee if any work may result in take of NSO. The Resident Engineer may act on this information by stopping the work. If the Project biologist(s) exercises this authority, USFWS will be notified by telephone and email message within 1 working day. During construction, a Project biologist will conduct daytime visual surveys for NSO within the active construction area and monitor any NSO nest sites within the action area identified during preconstruction or status surveys.

AMM BIO-6: Equipment Sound Control Devices. All equipment will have sound control devices that are no less effective than those provided by the manufacturer of the equipment. All equipment will be operated and maintained to minimize noise generation, and no equipment will have unmuffled exhaust systems.

AMM BIO-7: Auditory Disturbance. 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 suitable NSO nesting/roosting habitat between October 31 to July 9.

AMM BIO-8: Visual Disturbance. No construction activities shall occur within a visual line-of-sight of 40 meters (131 feet) or less from any known NSO nest locations within the action area.

AMM BIO-9: MAMU Biological Monitoring. Caltrans will submit the names and qualifications of the Project biologists for USFWS approval at least 30 calendar days prior to initiating construction activities for the proposed Project. Only USFWS-approved Project biologists will implement the monitoring duties outlined in the Project description. The USFWS-approved Project biologist(s) will be onsite during all ground-disturbing activities. The Project biologist(s) has authority to contact the Resident Engineer or his or her designee if any work may result in take of MAMU. The Resident Engineer may act on this information by stopping the work. If the Project biologist(s) exercises this authority, USFWS will be notified by telephone and email message within 1 working day. During construction, a Project biologist will conduct daytime visual surveys for MAMU within the active construction area and monitor any MAMU nest sites within the action area identified during preconstruction or status surveys.

AMM BIO-10: Pre-construction Survey for *Viola adunca.* A pre-construction survey for *Viola adunca* will be conducted in the early spring, prior to construction, referencing phenology trends observed at Fort Ross or other nearby reference populations. If *Viola adunca* are found in the work area, they will be flagged for avoidance. Negative findings for *Viola adunca* within the action area will indicate that the Project footprint does not contain suitable breeding habitat for BSB.

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 in §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?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

Caltrans prepared a *Section 106 Screening Memo for* the project (Caltrans 2022e). This section summarizes the findings of this memorandum. No further archaeology or architectural history studies are required.

Caltrans contacted the Native American Heritage Commission on September 21, 2021, requesting that they conduct a search of their Sacred Land Files to determine if there were known tribal resources within or near the Project area. The Native American Heritage Commission responded on November 2, 2021, stating no sacred sites were identified within the Project area. Eleven Native American individuals representing 8 tribes were contacted via email with attached negative results from the Sacred Land File search and the Project area map to request input on the Project on June 7, 2022.

Chairperson Franklin responded by email on June 7, 2022, and directed Caltrans to work with Tribal Historic Preservation Officer (THPO) Anthony Macias. THPO Macias was emailed on July 6, 2022, with information about the Project and to request a phone meeting. THPO Macias called on July 6, 2022, and the Project was discussed. The Tribe does not have any concerns but because the Project area is sensitive, they may want to monitor construction activities. Consultation is ongoing.

Caltrans has determined that the proposed Project has no potential to affect cultural resources and is exempt from further review pursuant to the PA, Stipulation VII, "Screened Undertakings." The undertaking has been screened and is exempt under Class 12 (Minor operational improvements, such as culvert replacements and median or side-ditch paving) of Attachment 2, "Screened Undertakings" in the PA. No further archaeology or architectural history studies are required at this time. However, if

Project plans change, further studies may be necessary. If previously unidentified cultural resources are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the discovery.

a, b, c) No Impact

Based on literature review, database searches, and outreach to local Native American organizations, the proposed Project has no potential to affect cultural resources. The Project would have no impact on historic resources or archaeological resources because there are no historic properties within the Project limits. Implementation of Project features CULT-1 and CULT-2 would reduce potential impacts to undiscovered cultural resources.

Project Feature

Caltrans would incorporate its standard measures into the Project to offset or avoid potential impacts to cultural resources. These Project features include those described in the following paragraphs.

Project Feature CULT-1: Discovery of Cultural Resources. If previously unidentified cultural resources are unearthed during construction, work would be halted in that area until a qualified archaeologist can assess the significance of the discovery.

Project Feature CULT-2: Discovery of Human Remains. If remains are discovered, all work within 60 feet of the discovery would halt and Caltrans Cultural Resource Studies Office would be called. Caltrans Cultural Resources Studies Office staff would assess the remains and, if they are determined to be human, would contact the County Coroner, per Public Resources Code, Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the coroner determines the remains to be Native American, then the coroner would contact the Native American Heritage Commission, which would assign a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on treatment and reburial of the remains. Further provisions of Public Resources Code, Section 5097.98 would be followed as applicable.

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* (Caltrans 2022c), was completed for the Project. This section summarizes the findings of this report.

a) Less than Significant Impact

Activities that consume energy also generate by-products. Greenhouse gases (GHGs) are the most closely studied byproducts of energy consumption because they are linked to climate change. To assess energy consumed by construction equipment and vehicles, the Construction Emissions Tool 2020 (CAL-CET 2020), version 1.0, developed by Caltrans, was used to quantify carbon dioxide (CO_2) emissions. The U.S. Environmental Protection Agency's GHG equivalencies formulas were used to convert CO_2 to fuel volumes. It was assumed that diesel would be used by all construction vehicles and equipment. The results of this analysis indicate that the Project would consume an estimated 5,304.52 gallons of diesel fuel.

There would be different phases in construction, and energy use would depend on construction equipment used per activity of each phase. Because construction activities would be temporary and short-term, the increase of energy consumption within the Project area would also be short-term. Construction activities would not increase highway capacity or otherwise alter long-term vehicular circulation that could affect energy use. During construction, BMPs, as described under Project feature Energy-1, would be implemented for energy efficiency of construction equipment.

This Project would not result in changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in energy consumption. The impact would be less than significant.

b) No Impact

The purpose of the Project is to rehabilitate the culvert hence conserving the culvert and the highway structural integrity while ensuring public safety. As a result, it would reduce maintenance needs. Traffic volumes and types of vehicles using the highway would not change as result of the Project. Therefore, the proposed Project would not conflict with the regional/statewide goals on climate change, air quality, and petroleum reduction.

The Project would not conflict with a state or local plan for renewable energy or energy efficiency. There would be no impact.

Project Feature

Caltrans would incorporate a standard measure into the Project to offset or avoid potential impacts to energy. This feature is described in the following paragraph.

Project Feature Energy-1: Minimize Energy Consumption from Construction Activities. The use of construction BMPs would minimize energy consumption from construction activities, including, but not limited to limit idling of vehicles and equipment; use solar power as a power source, if feasible; ensure regular maintenance of construction vehicles and equipment; and if feasible, recycle nonhazardous waste and excess materials to reduce disposal offsite.

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.	No Impact
(ii) Strong seismic ground shaking?	No Impact
(iii) Seismic-related ground failure, including liquefaction?	No Impact
(iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

CEQA Significance Determinations for Geology and Soils

A *Geologic, Seismic, and Palaeontologic Analysis- Drainage System Restoration Project* technical memorandum (Caltrans 2022b) was prepared for the Project. This section includes the findings of this study.

The Project site is underlain by the German Rancho Formation (Tg), composed of sandstone, conglomerate, and mudstone. The culvert is located in an artificially infilled stream channel which cuts through these deposits.

a(i), (ii), (iii), (iv) No Impact

The Project would not affect geologic or native soil conditions. There are no known sensitive geologic or paleontological resources in the Project limits. There would be no additional impacts to the public from earthquakes, landslides, liquefaction, or other geologic hazards.

The Project and its proposed improvements would not directly or indirectly increase the potential for surface rupture, or strong ground shaking. There are no faults crossing SR 1 within the Project area. Although the North Coast section of the San Andreas is located approximately 210 feet southwest of the Project site, roughly parallel to SR 1, this trace of the San Andreas fault is not capable of earthquake generation.

The German Rancho Formation contains local abundances of reworked (transported, incomplete, and/or less well-preserved) marine macrofossils and deep water trace fossils of Paleocene age (Anderson 1995). This Project is unlikely to expose fossils or significantly affect sensitive paleontological and/or geologic units. The excavations for this Project will take place within existing artificial fill. These units are not fossil bearing; therefore, there would be no impact.

b) No Impact

Drainage System Restoration work would not result in substantial soil erosion or the loss of topsoil; therefore, there would be no impact.

c, d, f) No Impact

There are no sensitive geologic, paleontological, or mineral resources in the Project limits. No additional impacts to the public from earthquakes, landslides, liquefaction, or other geologic hazards would result from the Project. The excavations for this Project will take place within existing artificial fill.

e) No Impact

No septic tanks or alternative wastewater delivery systems would be constructed or affected by the Project; therefore, no impact would occur.

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-Related Greenhouse Gas (GHG) Emissions Analysis* memorandum (Caltrans 2022d) was completed for the Project. This section summarizes the findings of this review.

a) Less than Significant Impact

The GHG emissions resulting from construction activities would not result in long-term impacts on the environment. Construction-generated GHG would include emissions resulting from material processing by onsite construction equipment, workers commuting to and from the Project site, and traffic delays resulting from construction. The emissions would be produced at different rates throughout the Project, depending on the activities involved at various phases of construction. The analysis was focused on vehicle emitted GHG. CO_2 is the single most important GHG pollutant because of its abundance when compared with other vehicle-emitted GHGs, including methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, and black carbon.

Based on Project information available for environmental studies, the construction-related GHG emissions were calculated using the Caltrans Construction Emissions Tool (CAL-CET 2020), version 1.0. It was estimated that for construction duration of 45 days the total amount of CO_2 produced due to construction would be 54 tons. Table 3-1 summarizes the construction-related emissions, including the total carbon dioxide equivalent (CO_2e) emissions. Frequency and occurrence of GHG emissions would be reduced through Project Feature GHG-1, described in the following subsection.

Table 3-1. Construction-related GHG Emissions

Parameter	CO_2 (tons)	CH_4 (tons)	N_2O (tons)	Total CO_2e[a] (Metric Tons)
Total Emissions	54	0.002	0.003	49.86

[a] Gases are converted to carbon dioxide equivalent (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 CO_2.

b) No Impact

The proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The proposed Project would not contribute to a long-term increase in GHG emissions. Therefore, it would not be in conflict with reducing long-term emissions. There would be no impact.

Project Feature

Caltrans would incorporate a standard measure into the Project to offset or avoid potential impacts to greenhouse gases. This feature is described in the following paragraph.

Project Feature GHG-1: Control Measures for Greenhouse Gases. Measures would be determined during later Project phases and implemented during construction to ensure regular maintenance of construction vehicle and equipment; limit idling of vehicles and equipment on site; recycle nonhazardous waste and excess material if practicable; and use solar power for items requiring electricity, such as signal boards, if feasible.

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?	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 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
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR HAZARDS AND HAZARDOUS MATERIALS

There is no potential for encountering hazardous materials during the construction stage of the Project (Wilson [Caltrans] pers. comm. 2022). Thus, there is no need for further soil sampling. Extensive past site investigations for multiple Sonoma County SR 1 culvert replacement projects in the subject Project's general area have consistently shown that aerially deposited lead contamination is negligible, likely due to the history of relatively low traffic volumes. The Project's limited surplus soil excavation volumes should be left within the areas of work.

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

The Project would not create a significant hazard to the public related to the routine transport, use, or disposal of hazardous materials. Also, the Project would not 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.

Caltrans standard specifications BMPs would be implemented to prevent spills or leaks from construction equipment, as well as from storage of materials, such as fuels, lubricants, and solvents. All aspects of the Project associated with removal, storage, transportation, and disposal would be in strict accordance with the appropriate regulations of the California Health and Safety Code. Handling of hazardous materials would comply with Caltrans Standard Specification 14-11, Hazardous Waste and Contamination, which outlines handling, storing, and disposing of hazardous waste. There would be no impact.

The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school because there are no existing or proposed schools within 0.25 mile of the Project; therefore, there would be no impact.

The Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, the Project would not create a significant hazard to the public or the environment.

The Project is not located within an airport land use plan, or within 2 miles of a public airport or public use airport. There would be no impact.

f) Less than Significant Impact

The Project would minimally interfere with any emergency response or evacuation plan. Potential traffic delays would result from construction activities. One-way traffic control and one lane closure would be required during construction. Prior to construction, a traffic management plan (TMP) (refer to AMM TRANS-1 in the Transportation and Traffic section) would be developed to control traffic, minimize traffic delays, and provide alternative routes. Emergency response times would not be anticipated to change during construction because the TMP would provide priority to emergency vehicles during one-way traffic control. The TMP would provide instructions for emergency response or evacuation in an emergency. In addition, the Project would not conflict with any other emergency response or evacuation plan. The impact would be less than significant.

g) No Impact

The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Caltrans proposes to restore the drainage system on SR 1 and would not have occupants or require installing associated infrastructure that would exacerbate fire risk or expose people or structures to risks. There would be no impact.

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 ground water quality?	Less than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such 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;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

CEQA Significance Determinations for Hydrology and Water Quality

Caltrans completed a *Location Hydraulic Study/Floodplain Analysis* (Caltrans 2021b) and a *Water Quality Study* (Caltrans 2021c) for the project. This section summarizes the findings of those reviews.

The Project is located within the RWQCB North Coast Region (Region 1). The work will be done in the Mendocino Coast Hydrologic Unit, Gualala River Hydrologic Area, and Gualala Hydrologic Sub-Area (HAS # 113.85). The Project is located in the Salmon Creek-Frontal Pacific Ocean Watershed and Russian Gulch-Frontal Pacific Ocean sub-watershed.

a) Less than Significant Impact

The proposed Project would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality.

Water would potentially flow from the unnamed gulch into the cross culvert beneath SR 1 and discharge into the Pacific Ocean about 300 feet west of the Project site. This portion of the Pacific Ocean Coast is not on the 303(d) list of impaired waterbodies.

The disturbed soil area would be less than 1.0 acre; therefore, the construction activities are not subject to the Construction General Permit. The Water Pollution Control Program will be provided to control all the potential temporary construction impacts resulting from the Project.

A 401 Water Quality Certification from the North Coast RWQCB, as well as a Coastal Development Permit, would be required for this Project. With implementation of Project feature WQ-1, the Project would comply with the anticipated requirements of the 401 Water Quality Certification, which may require implementation of a stormwater pollution prevention plan to reduce impacts to less than significance.

Potential temporary impacts (during the Construction phase) to existing water quality may result from staging and active construction areas, which could result in the release of fluids, concrete material, sediment, and litter beyond the perimeter of the site. Impacts may include a change in localized pH and turbidity and other pollutants entering into the stream channel. The anticipated sources for potential impacts to the water quality during construction include, but are not limited to, the following:

- Debris and sediments from excavation and demolition
- Earth works (earth fill, temporary access road)
- Concrete works
- Turbidity during dewatering
- Watercourse banks and beds disturbance (temporary diversion system work)
- Ground disturbing activities (vegetation removal)
- Oil and grease from vehicles and construction equipment
- Sanitary wastes
- Chemicals used for equipment and concrete works
- Trash

Potential long-term impacts to existing water quality are the same for the existing facility, the deposition and transport of sediment & vehicular-related pollutants.

Implementation of Project features described in the following subsection, would be used for sediment control and material management. With implementation of Project features WQ-1 through WQ-9, the Project would not substantially degrade surface water quality and the impact would be less than significant.

b) No Impact

The Project would have no effect to groundwater supplies or groundwater recharge areas in the Project vicinity. There would be no impact.

c(i), (ii), (iii), (iv)) No Impact

The Project would not substantially alter the existing drainage pattern of the Project site and would not result in substantial erosion or siltation. The Project would not result in an increase of surface runoff, create runoff that would exceed existing storm drain systems, or create substantial additional sources of polluted runoff. The Project would not impede or redirect flood flows. There would be no impact.

d) No Impact

Per the Federal Emergency Management Agency's Flood Insurance Rate Map number 06097C0435F, dated March 07, 2017, the Project is within Zone D, an area of undetermined flood hazard. Because the Project is located between an ocean bluff and a hillside, the Project is not within a floodplain.

The proposed Project is not in seiche or tsunami zones. There would be no impact.

e) No Impact

The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There would be no impact.

Project Features

Caltrans would incorporate the following standard Project features into the Project to offset or avoid potential impacts to hydrology and water quality:

Project Feature WQ-1: Water Quality Best Management Practices: This Project will require a 401 permit from the San Francisco RWQCB. It is anticipated that the

RWQCB permit would require a stormwater pollution prevention plan, which would provide guidance on erosion control BMPs to be implemented to minimize wind- or water-related erosion. These BMPs would also be implemented via language in the *Construction Site Best Management Practices (BMPs) Manual* (Caltrans 2017), which provides guidance for including provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. **Project Feature WQ-2: Job Site Management:** This non-stormwater discharge and waste management practice would include considerations for operations, illicit discharge detention and reporting, vehicle and equipment cleaning, vehicle and equipment fueling, and material use.

Project Feature WQ-3: Sediment Control Practices: Sediment control practices would include, but not be limited to, the following:

- Silt fence
- Soil cover
- Check dam
- Fiber rolls (a fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers, rolled or bound into a tight tube shape and placed on the toe and face of slopes to intercept runoff, reduce the runoff's flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff.)
- Drainage inlet protection
- Concrete washouts
- Street sweeping and vacuuming

Project Feature WQ-4: Tracking Control Practices. Tracking control practices would include:

- Temporary (stabilized) construction entrance (exit)
- Temporary construction roadway
- Entrance/outlet tire wash
- Street sweeping and vacuuming

Project Feature WQ-5: Waste Management and Materials Pollution Control. Waste management and materials pollution control measures would be as follows:

- Stockpile management: This practice is needed to reduce or eliminate air and stormwater pollution from stockpiles of soil and paving materials.
- Concrete waste management: The concrete quantity has not been determined at this phase of the Project. However, it is imperative to confirm that procedures and practices are in place to eliminate or minimize the discharge of concrete slurry to the storm drain system. These measures would include, but not be limited to, the following:
    - Concrete slurry waste-handling procedures
    - Onsite concrete washout facility
    - Transit truck washout procedures
    - Procedures for removal of temporary concrete washout facilities
- Material delivery and storage
- Spill prevention control
- Solid waste management
- Hazardous waste and contaminated soil management
- Sanitary/septic and liquid waste management

Project Feature WQ-6: Non-stormwater Management. Non-stormwater management practices would include the following:

- Dewatering Operations: At this phase of the Project, no water table data or log of test boring have been provided. Dewatering effluent that would be discharged from the construction site to a storm drain or receiving water would be subject to requirements of the applicable National Pollutant Discharge Elimination System permit but would most often be regulated under a 401 certification or waste discharge requirements administered by RWQCB. An active treatment system may be necessary to meet the effluent limits of the construction general permit for turbidity and pH in the stormwater.
- Concrete curing: This BMP consists of procedures that would minimize pollution of stormwater runoff during concrete curing.

- Concrete finishing: This BMP consists of procedures that would minimize the impact concrete finishing methods may have on stormwater runoff. These methods would include sand blasting, lead shot blasting, grinding, or high-pressure water blasting.
- Water conservation practices
- Potable water/irrigation
- Vehicle and equipment operations (fueling, cleaning, and maintenance)
- Material and equipment use

Project Feature WQ-7: Soil Stabilization. Soil stabilization would include preservation of existing vegetation, slope protection, slope interrupter devices, and channelized flow.

Project Feature WQ-8: Wind Erosion Controls. Wind erosion controls would include hydraulic mulch and temporary covers.

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

CEQA SIGNIFICANCE DETERMINATIONS FOR LAND USE

SR 1 within the Project limits is used as the primary access for many small and relatively isolated communities, provides access to Salt Point State Park, and various vista points. Land use to the west of the Project location is zoned as resource and rural development coastal district and Timberland Production to the east. Land use within these zones provide protection of lands needed for commercial timber production, watershed protection, and preserve fish and wildlife habitat. Very low-density residential development and recreational and visitor-serving uses are allowed within this zone. All work for the Project will occur within Caltrans ROW.

a) No Impact

No changes in land use would occur from the Project. The Project would not physically divide an established community. There would be no impact.

b) No Impact

Consistency with State, Regional, and Local Plans and Programs

Land use plans, policies, and regulations that are applicable to the Project are included within the Sonoma County General Plan (Sonoma County 2020), the Sonoma County's Local Coastal Plan (LCP) (Sonoma County 2001), Sonoma 1 Repair Guidelines (Caltrans 2019), and the Coastal Zone Management Act of 1972. The Project would be consistent with the Sonoma County General Plan. In addition, there is no state recreational land use within the vicinity of the Project.

Local Coastal Plan

The LCP is a land use plan for Sonoma County's coast to guide its future development and assure that coastal resources are properly used and protected.

Coastal Zone Management Act

The proposed Project lies within the California Coastal Zone. Resources within this zone are protected by the Coastal Zone Management Act of 1972. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the CCA, to protect the Coastal Zone. The policies established by the CCA include: the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The CCC is responsible for implementation and oversight under the CCA.

The CCA delegates power to local governments to enact their own LCPs; in this case, the Sonoma County LCP (Sonoma County 2001). The state-certified LCP is a portion of the Sonoma County General Plan and includes visual resources policies and recommendations under the "Development" section of the CCA. The Sonoma County LCP determines the short- and long-term uses of coastal resources in their jurisdiction, consistently with the CCA goals.

The Project is within the permitting jurisdiction of Sonoma County and would require a local coastal development permit for construction.

The policies of the CCA (PRC Division 20) give the highest priority to the preservation and protection of Prime Agricultural Land and Timber Lands. The next priority goes to public recreation and visitor serving facilities.

Key provisions of the CCA and the Sonoma County LCP are provided in Table 3-2, and an evaluation of permitting activities of the proposed Project is presented in Table 3-3.

Table 3-2. Key Provisions of the California Coastal Act

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30210	Provide maximum public access and recreational opportunities.	The proposed Project would improve coastal public access by maintaining the safety and reliability of SR 1.
Section 30211	Note that development shall not interfere with public access to the sea.	The proposed Project would maintain the safety and reliability and continue to provide public access to the ocean as described previously.
Section 30212	For new development projects, provide for public access to the shoreline and along the coast.	The proposed Project would not be considered new development.
Section 30252	Public Access	The proposed Project would maintain reliability of SR 1, bicycle safety pullouts, and public access to the ocean as described previously. Public access would not be affected by the proposed Project.
Section 30221	Protect suitable oceanfront land for recreational use.	The Project would not impact public access to recreational facilities or oceanfront land.
Section 30231	Biological activity; water quality	Biological and water quality resources would potentially be temporarily affected by construction of the proposed Project; however, all impacts would be minimized, and the affected areas would be restored to pre-existing conditions. Project features and AMMs would be incorporated to minimize environmental effects to biological resources, wetlands, and water quality.
Section 30233	Diking, filling, dredging of wetlands	The Project would not include diking, filling, or dredging of wetlands. The Project has been designed to avoid wetland impacts as much as possible. Potential wetland impacts would be mitigated to a no-net-loss level during the permitting phase.
Section 30235	Construction altering natural shoreline	The Project would not alter the natural shoreline of the Pacific Ocean. By replacing culverts and right-sizing pipes that convey water from creeks and natural runoff, the Project would reduce erosion and sedimentation of downstream waters and the Pacific Ocean.

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30240	ESHAs	Temporary direct impacts to ESHAs, in the form of coastal aquatic resources, would result from culvert replacement, temporary creek diversion system, metal beam guardrail replacement, and shoulder backing, and may also result from stormwater treatment areas. AMMs and Project features would reduce these impacts.
Section 30241-30242	Agricultural land	Although Prime Farmland, Williamson Act parcels, and other property used as agriculture exist adjacent to the Project study area, they are not within the Project limits thus the Project would not affect these resources.
Section 30244	Archaeological/ paleontological resources	The Project would not result in an adverse effect to archaeological and historical resources. No effects to paleontological resources are anticipated.
Section 30251	Scenic and visual qualities	The Project would not result in adverse effects to scenic vistas/resources in the Project study area. The Project was designed such that scenic and visual qualities of coastal areas would be protected as a resource of public importance. The Project would not alter natural landforms.
Section 30254	Public works facilities	With the proposed Project, SR 1 would remain a two-lane coastal scenic highway.
Section 30604	In coastal development permits, include a finding that the development is in conformity with public access and public recreation policies.	The Project would conform with public access public recreational policies, and bicycle safety pullouts for public access.
Section 30609.5	Consider state lands between the first and public roadway to the ocean.	Caltrans would maintain the land devoted to the existing SR 1 highway and its use for public access to the ocean.
Section 30706	Coastal hazards	The purposes of the Project are to maintain continued connectivity for SR 1 and increase reliability.

Table 3-3. Key Provisions of the Sonoma County Local Coastal Program

Policy Subject	Coastal Zone Assessment
Shoreline Access	The Project would improve coastal public access by increasing the safety and reliability of SR 1. This would be accomplished through minimizing emergency road closures to SR 1, which would interfere with shoreline access to parks, beaches, and oceanfront land.
Recreation and Visitor- Serving Facilities	The Project would not interfere with public access to the ocean and the beach. Coastal recreation and visitor-serving facilities to include bicycle safety pullouts for public access would be protected and maintained.
Transportation	The Project would improve coastal public access by increasing safety and reliability of SR 1.
ESHAs	Potential adverse effects to ESHAs have been reduced to the extent practicable through Project features and AMMs. The Project would minimize impacts to ESHAs in the form of coastal wetlands, through onsite restoration (Project Feature BIO-5).
Agriculture	Although Prime Farmland and Williamson Act contracts exist within the Project study area, the Project would have no effect on these resources.
Public Works	The Project would not adversely affect public works in the Project study area. Caltrans would submit the Project to Sonoma County for review, comments, and findings as to its conformity with the LCP during the coastal development permit process.
Coastal Watersheds	The Project would be consistent with Sonoma County's LCP, because it would improve highway reliability with a culvert rehabilitation that would minimize erosion and sedimentation, which could harm coastal resources.
Visual and Scenic Resources	The Project would not result in adverse effects to scenic vistas/resources. The Project was designed such that scenic and visual qualities of coastal areas would be protected as a resource of public importance. The Project would not alter natural landforms.
Hazards	The purposes of the Project are to maintain continued connectivity for SR 1.
Archaeology	The Project would not result in an adverse effect to archaeological.
Air Quality	No air quality impacts are anticipated from the Project.

Existing SR 1 would remain open during construction, with implementation of temporary one-way traffic control as needed. Lane closures, existing pullout areas, and other Caltrans ROW would be used for construction parking, staging, and stockpiling of materials.

In summary, the Project would not conflict with any land use plan, policy, or regulation adopted to mitigate an environmental effect. The Project would be consistent with the Sonoma County General Plan and Sonoma County's LCP. The Project would increase safety for vehicles and coastal access. There would be no impacts.

3.3.12 Mineral Resources

Would the project:

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, b) No Impact

The Project would not result in the loss of availability of a known mineral resource or the loss of availability of a locally important mineral resource recovery site because SR 1 through the Project location lies on engineered (artificial) fill. Therefore, no impacts on mineral resources would result from the Project.

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?	No Impact
b) Generation of excessive ground borne vibration or ground borne 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

Residential areas are classified as a resource potentially sensitive to construction noise. The closest residential dwelling is 0.7 mile away from the Project location. Because of the level of work that will be done for the Project a noise study was determined to not be required.

a, b, c) No Impact

The Project would not generate substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project. A traffic noise study is not required for this Project; therefore, noise abatement need not be considered.

Construction activities would not generate excessive ground borne vibration or ground borne noise levels. In addition, the Project would not be within the vicinity of a private airstrip or an airport land use plan. There would be no impact.

Avoidance and Minimization Measures

Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts from noise:

AMM Noise-1: Specifications for Controlling Noise and Vibration. Noise from construction activities will not exceed 86 A-weighted decibel Lmax[1] at 50 feet from

[1] Lmax noise descriptor is the highest instantaneous noise level during a specified period; in the noise analysis, that is 1 hour.

the Project site from 9:00 p.m. to 6:00 a.m., per 2018 Caltrans Standard Specifications, Section 14-8.02.

AMM Noise-2: Noise Levels During Construction. The following measures will be implemented during construction to reduce noise:

- Restrict the times of overly loud construction activities to between 6:00 a.m. and 9:00 p.m.
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate all stationary, noise-generating, construction equipment, such as air compressors, portable power generators, or self-powered lighting systems, as far as practical from noise-sensitive receptors.
- Use quiet air compressors and other quiet equipment where such technology exists.
- As practicable, have construction equipment conform to Section 14-8.02, Noise Control, of the latest Caltrans Specifications.

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, b) No Impact

The Project would not induce substantial, unplanned, population growth either directly or indirectly because it does not increase the capacity of SR 1, remove barriers to future growth, or increase population or housing growth (or demand for new housing, utilities, or public services). The Project would not displace existing people or housing or necessitate the construction of replacement housing elsewhere. There would be no impact to 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: Fire protection?	No Impact
Police protection?	No Impact
Schools?	No Impact
Parks?	No Impact
Other public facilities?	No Impact

CEQA Significance Determinations for Public Services

a) No Impact

The proposed Project would not result in substantial alteration of government facilities, such as fire and police protection, schools, parks, or other public facilities, in the Project area. Additionally, the proposed Project would not trigger the need for new government facilities or alter the demand for public services. There would be no impact.

The Project is in unincorporated Sonoma County and would primarily fall under the jurisdiction of the County Sheriff's Office, located at 16225 First Street in Guerneville. The closest fire station to the Project area would be the Sea Ranch Fire Department at 960 Annapolis Road in Sea Ranch.

Traffic delays could result from the need for one lane closure during construction. A TMP would be prepared that would provide accommodation for police, fire, emergency, and medical services in the local area during construction (AMM TRANS-1 in the Transportation and Traffic section).

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

Salt Point State Park and Kruse Rhododendron State Natural Reserve are located 0.7 miles south of the proposed Project limits. These parks would not be affected by the Project.

a) No Impact

The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities and would not directly or indirectly increase the demand of existing recreational facilities such that substantial deterioration of the facilities would occur. There would be no impact.

During construction, there would be temporary traffic delays and lane closures on SR 1, which could result in temporary effects on public access to recreational resources near the Project. These delays would be temporary, and are unlikely to result in indirect or direct, adverse impacts to park and recreational access.

b) No Impact

The proposed Project does not require the construction or expansion of recreational facilities. There would be no impact.

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?	No Impact
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact
d) Result in inadequate emergency access?	Less than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR TRANSPORTATION

The Project would be located on SR 1 in Sonoma County which is a conventional highway with two lanes of travel in each direction. SR 1 is part of the Pacific Coast Bicycle Route. The corridor serves as a critical connection for many small and relatively isolated communities and is currently listed as being eligible for State Scenic Highway designation.

There are no county bus or school bus routes that run on SR 1 through the Project location. There are minimal shoulders and no sidewalks at the Project location and no pedestrian access work has been proposed.

The Metropolitan Transportation Commission (MTC), which functions as both the state-designated Regional Transportation Planning Agency and federally designated Metropolitan Planning Organization, is responsible for regional transportation planning. MTC's Plan Bay Area 2050, serves as the San Francisco Bay Area's Regional Transportation Plan and Sustainable Communities Strategy (ABAG/MTC 2021).

Local transportation planning includes the Sonoma County Transportation Authority (SCTA), which is a collaborative agency of the cities and County of Sonoma. The *Sonoma County Comprehensive Transportation Plan 2050* (SCTA 2021) is the local transportation plan of the SCTA.

a) No Impact

The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities including the Sonoma County Comprehensive Transportation Plan 2050 (SCTA 2021). The Project would maintain and improve existing SR 1, but not increase the capacity of the highway. The Project would maintain all existing highway features and would not permanently alter the circulation system.

As discussed in AMM TRANS-1, a TMP would be developed to minimize potential effects from construction to all users. The TMP would include elements, such as haul routes, one-way traffic control, flaggers, and phasing, to reduce impacts to local residents and emergency and medical service providers. The TMP would also ensure access to businesses in the local area is maintained. Therefore, there would be no permanent impact to components of the transportation system.

b) No 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. Under Section 15064.3, subdivision b, transportation projects that have no impact on vehicle miles traveled should be presumed to cause no impact on transportation.

c) No Impact

The Project would not increase hazards because of a geometric design feature. The Project would not include any design features or construction elements (such as sharp curves or dangerous intersections) that would substantially increase hazards. There would be no impact.

d) Less than Significant Impact

The Project would not result in inadequate emergency access. The Project could cause short-term, localized, traffic congestion and delays, resulting from temporary closures of one lane of SR 1. One-way traffic control would be required during construction, but detours are not anticipated.

Under the TMP (AMM TRANS-1), medical and emergency vehicles would be able to continue to use routes along the Project corridor to serve fire, medical, and law

enforcement purposes. Flaggers would give priority to emergency vehicles. The impact would be less than significant.

Avoidance and Minimization Measure

AMM TRANS-1: Traffic Management Plan: To minimize potential effects from construction activities to motorists, bicyclists, or pedestrians, a TMP will be developed by Caltrans and implemented throughout construction. The TMP will include public information, motorist information, incident management, construction, and alternate routes. The TMP will also include elements, such as haul routes, one-way traffic control, flaggers, and phasing, to reduce impacts to local residents as much as feasible and to maintain access to businesses in the local area. The TMP will also provide access for police and emergency service providers. Lane closures will be planned in coordination with Caltrans, and Sonoma County; planning will include notices to emergency service providers, and the public in advance.

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, 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

Caltrans prepared a *Section 106 Screening Memo for* the project (Caltrans 2022e). This section summarizes the findings of this memorandum. No further archaeology or architectural history studies are required.

Refer to Section 3.3.5, Cultural Resources, for a discussion of Caltrans coordination with the Native American Heritage Commission, as well as 11 Native American individuals, representing the 8 tribes summarized in the memorandum.

a, b) No Impact

The Project would not cause a substantial, adverse change in the significance of a tribal cultural resource. In 2021 and 2022, Section 106 Closeout Memos (Caltrans 2022e) were prepared to identify historic properties in the Area of Potential Effects developed by Caltrans. No tribal cultural resources were reported in record searches or in consultation with Native American groups and individuals. Based on this report, there would be no impact.

Project features CULT-1 and CULT-2, discussed under Cultural Resources, would be implemented if cultural resources or human remains are discovered during Project construction.

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?	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

CEQA Significance Determinations for Utilities and Service Systems

An underground fiber optic communications cable is buried approximately 1 foot deep in the highway pavement from about postmile 35 to about postmile 45. This communications cable was installed by Verizon Inc. and currently is owned and managed by Frontier California Inc. Since the terminus of the cable is sufficiently close to the Project site (PM 45.4), the Frontier cable company will need to be contacted to ascertain location of the cable. No other utilities have been identified within the Project limits.

a) Less than Significant Impact

The proposed Project would not result in the construction of new or expanded utilities. Further utility verification would be conducted during later Project phases.

Existing utilities would be located and protected from possible damage during construction. Caltrans would coordinate with the appropriate utility provider; therefore, the impact would be less than significant.

b, c, d, e) No Impact

The proposed 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 proposed 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 Project Features UTI-1 and UTI-2 would require the proper disposal of construction trash. There would be no impact.

Project Features

Caltrans would incorporate its standard measures into the Project to offset or avoid potential impacts to utilities and service systems. These features include those described in the following paragraphs.

Project Feature UTI-1: Trash Management. All food-related trash items, such as wrappers, cans, bottles, and food scraps, would 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 Caltrans Statewide National Pollution Discharge Elimination System Permit and San Francisco RWQCB Cease and Desist Order.

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

CEQA Significance Determinations for Wildfire

Within Sonoma County, the Project would be located within a State Responsibility Areas for wildfire prevention and suppression, within a high fire hazard severity zone (CalFire 2007).

a) Less than Significant Impact

The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. During later Project phases, a TMP (AMM TRANS-1 in the Transportation and Traffic section) would be developed that would identify traffic diversion, staging, and alternative routes. Emergency response times would not be anticipated to change during construction because the TMP would provide measures to ensure priority for emergency vehicles during one-way traffic control. The TMP would provide instructions for response and evacuation in an emergency. In addition, the Project would not conflict with any other emergency response or evacuation plan. The impact would be less than significant.

b, c, d) No Impact

The Project would not exacerbate wildfire risks, require the installation or maintenance of infrastructure that may exacerbate wildfire risk, or expose people or

structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. Caltrans proposes to restore the culvert on Sonoma SR 1; therefore, the Project would not involve occupation or habitable structures, and would not include the installation of associated infrastructure that would exacerbate wildfire risk. There would be no 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)?	Less than Significant Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE

a) Less than Significant Impact

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 result in temporary, minor, and construction-related impacts; however, with the implementation of the Project features and AMMs, (Appendix B), these potentially significant impacts would be reduced to less than significant levels.

b) Less than Significant Impact

The Project involves the restoration of existing infrastructure on SR 1. Current or future SHOPP projects, located on SR 1 in the Project vicinity, are listed in Table 3-4.

Table 3-4. SHOPP Program Projects along SR 1 in the Project Vicinity

Project Name	Location	Characteristics	Status
SON SR 1 Culverts Rehabilitation Project-North	SR 1 from PMs 41.2 to 54.6	Replace 27 culverts from 0.2 mile north of Miller Creek to 0.1 mile north of Vantage Road at various locations.	Under Environmental Review Phase
SON SR 1 Culvert Rehabilitation Project-South	SR 1 from PM 30.8 to 40.6	Replace 23 culverts from Mill Gulch to 0.5 mile south of Miller Creek	Under Environmental Review Phase

Analysis of the proposed Project's potential cumulative environmental effects determines which resources would be significantly impacted by the Project and whether there could be a detrimental condition or deterioration of health in a resource within the context of impacts from past, present, and other reasonably foreseeable future actions. The analysis determines whether, collectively, the Project and the foreseeable condition combine to result in a cumulative impact.

The Project would involve the restoration of existing infrastructure along SR 1. The Project would occur within the Caltrans ROW. The Project would not convert lands to new or different uses, increase highway capacity, induce growth, or otherwise change land use patterns. The Project would not result in long-term, adverse environmental effects, and so would not contribute to cumulative environmental impacts. The analysis presented in this IS/ND identifies temporary construction-related impacts on biological resources, energy, GHG emissions, hazards/hazardous materials, hydrology/water quality, transportation/traffic, and wildfire. These impacts are anticipated to be minor and incremental in nature, and not cumulatively considerable across the entire Sonoma County SR 1 region.

Caltrans routinely coordinates with regional transportation managers and local agencies to minimize impacts in the region resulting from construction of multiple planned projects. The short duration and limited scope of this Project would not contribute to substantial cumulative environmental impacts; and Project-related impacts to resources would be reduced with the proper implementation of Project features and AMMs. Therefore, the impact would be less than significant.

c) Less than Significant Impact

This Project would not adversely affect human beings, either directly or indirectly. Project impacts are anticipated to be minor and result mostly from construction-related delays and traffic management. Intermittent night work would occur. Daytime work would occur with the potential to impact vehicles travelling through the Project area; however, implementation of Project features and AMMs would address dust-, noise-, and traffic-related impacts. Temporary construction-related activities would result in less than significant environmental impacts to human beings.

Chapter 4 Comments and Coordination

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

4.1 Community Outreach

The document, maps, Project information, and supporting technical studies are available for review weekdays from 8:00 a.m. to 5:00 p.m. at the Caltrans District 4 Office, 111 Grand Avenue, Oakland, CA 94612. The document is also available to download at the District 4 Environmental Documents by County Website. Additionally, the document will be made available at the Guerneville Regional Library, 14107 Armstrong Woods Road, in Guerneville and the Occidental Library, 73 Main Street, in Occidental. The deadline for submission of comments on the IS/ND is November 7, 2022.

4.2 Consultation and Coordination with Public Agencies

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

Table 4-1. Agency Coordination Meetings and Contacts

Organizations	Date	Topic
Native American Heritage Commission	September 21, 2021	Requested a search of Sacred Lands File
Native American Heritage Commission	November 2, 2021	The Native American Heritage Commission responded stating no sacred sites were identified.
Native American Consultation	June 7, 2022	Emails sent to Cloverdale Rancheria of Pomo Indians, Federated Indians of Graton Rancheria, Guidiville Rancheria, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Lytton Rancheria, Middletown Rancheria, Mishewal-Wappo Tribe of Alexander Valley, Muwekma Ohlone Indian Tribe of SF Bay Area, Pinoleville Pomo Nation, and Robinson Rancheria Band of Pomo Indians
Native American Consultation	June 7, 2022	Chairperson Franklin directed Caltrans to consult with Tribal Historic Preservation Officer (THPO) Anthony Macias

Organizations	Date	Topic
Native American Consultation	July 6, 2022	THPO Maricus was contacted through email and phone call and stated that the Tribe does not have any concerns but because the Project area is sensitive, they may want to monitor construction activities.
United States Fish and Wildlife Service	May 13, 2022	Caltrans biologist Jonathan Hogg initiated consultation on the Project with John Cleckler of the USFWS
United States Fish and Wildlife Service	August 22, 2022	Jonathan Hogg sent an email to John Cleckler inquiring USFWS' opinion on presence of species listed in the NES.
United States Fish and Wildlife Service	August 23 and 24, 2022	John Cleckler responded with recommendations of determining if any trees would be trimmed and sound levels associated with Project construction.

Chapter 5 List of Preparers

The primary people responsible for contributing to, preparing, and reviewing this report are listed in Table 5-1.

Table 5-1. List of Caltrans Preparers and Reviewers

Name	Role
Yerendra Jangid	Project Management
Helen Blackmore	Branch Chief, Architectural History
Robert Blizard	Branch Chief, Office of Biological Sciences and Permits
Arnica MacCarthy	Branch Chief, Office of Environmental Analysis
Kathleen Reilly	Office of Hydraulic Engineering
Chris Risden	Branch Chief, Geology Services Branch B
Kathryn Rose	Branch Chief, Archaeology
Shilpa Mareddy	Branch Chief, Air Quality and Noise
Mojgan Oosoli	Branch Chief, Stormwater Design
Joaquin Pedrin	Branch Chief, Office of Landscape Architecture
Chris Else	Landscape Associate
Chris Risden	Branch Chief, Office of Geotechnical Design
Agha Bakht	Project Engineer, Design
Charles Palmer	Environmental Planner, Architectural History, Office of Cultural Resource Studies
Lindsay Busse	Environmental Scientist, Architectural History, Office of Cultural Resources
Jonathan Hogg	Biologist, Biological Sciences and Permits
Scott M. Williams	Acting Office Chief, Office of Environmental Analysis
Chris Wilson	Branch Chief, Office of Environmental Engineering
Shilpa Mareddy	Branch Chief, Office of Environmental Engineering Air Quality and Noise Branch
Va Lee	Specialist, Office of Environmental Engineering Air Quality and Noise Branch
Althea Asaro	Acting Senior, Archaeology Office of Cultural Resource Studies
Alexandria Bevan	Planner, Office of Environmental Analysis

Chapter 6 Distribution List

The Draft IS with proposed ND will be circulated by October 31, 2022, to the following agencies and government officials.

Agencies

U.S. Fish and Wildlife Service

U.S. Army Corps of Engineers

State Water Resources Control Board

North Coast Regional Water Quality Control Board

California Department of Fish and Wildlife

California Department of Parks and Recreation

Governor's Office of Planning and Research

Sonoma County Transportation Authority

California Coastal Commission

Elected Officials

Senator Dianne Feinstein

Senator Alex Padilla

Senator Mike McGuire

Congressman Jared Huffman

Assembly Member Jim Wood

Supervisor Lynda Hopkins, Sonoma County District 5

Sonoma County Sheriff Mark Essick

Appendix A Title VI Policy Statement

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September 2021

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

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

Toks Omishakin
Director

Appendix B Summary of Project Features and Avoidance and Minimization Measures

Project Features

Project Feature BIO-1: Biological Monitoring: The Project biologist will conduct pre-construction surveys for federally and state-listed species, and the biologist will be present during construction activities including vegetation clearing and grubbing, as required by the resource agencies. If at any point any listed species is discovered within the Project limits, the agency-approved biologist, through the Resident Engineer or his/her designee, will halt all work within 50 feet of the animal and contact the corresponding agency (USFWS or CDFW) to determine how to proceed.

Project Feature BIO-2: Vegetation Removal: Whenever possible, vegetation removal will be scheduled between September 30 and February 1 to avoid impacts to nesting birds during the nesting season. If vegetation removal should occur during the nesting season, then a qualified biologist or biological monitor will survey for nesting birds as stated in the final CDFW 1602 permit.

Project Feature BIO-3: Implementation of Best Management Practices. A Storm Water Pollution Prevention Plan may be needed depending on extent of the disturbed soil areas. However, erosion control BMPs will be included in the plans and special provisions to comply with the requirements of the RWQCB general construction permit. The Caltrans BMP Guidance Handbook will provide guidance for design staff to include provisions in construction contracts for measures to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. Protective measures will include, at a minimum:

- Disallowing any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses.
- Keeping vehicle and equipment fueling and maintenance operations at least 50 feet away from watercourses, except at established commercial gas stations or an established vehicle maintenance facility.
- All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 50 feet from any

downstream riparian habitat, aquatic habitat, culvert, or drainage feature, or will be removed from the site at the end of the day.

- Dedicated fueling and refueling practices will be designated as part of the approved Storm Water Pollution Prevention Program. Dedicated fueling areas will be protected from storm water run-on and will be located at least 50 feet from downslope drainage facilities and water courses, if this is not possible then fueling will be conducted as stated in the RWQCB general construction permit and in the Caltrans BMP Guidance Handbook.
- Fueling must be performed on level-grade areas. On-site fueling will only be used when and where it is impractical to send vehicles and equipment off-site for fueling. When fueling must occur on-site, the contractor will designate an area to be used subject to the approval of the Resident Engineer (RE) representing Caltrans. Drip pans or absorbent pads will be used during on-site vehicle and equipment fueling.
- Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.
- Dust and erosion control measures will be implemented consistent with the RWQCB General Construction Permit and the Caltrans BMP Guidance Handbook.
- Installing coir rolls, straw wattles, or other erosion control items per guidance in the Caltrans BMP Guidance Handbook during construction to capture sediment.
- Protecting graded and designated staging areas consistent with the RWQCB General Construction Permit and the Caltrans BMP Guidance Handbook.

Project Feature 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:

- Enforcing a speed limit of 15 miles per hour for Project vehicles in unpaved portions of the site to reduce dust and excessive soil disturbance.
- Locating construction access, staging, storage, and parking areas within the Caltrans ROW to the extent practicable. 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.

- Certifying, to the maximum extent practicable, any borrow material to be non-toxic and weed free.
- Enclosing food and food-related trash items in sealed trash containers and removing them from the site at the end of each day.
- Prohibiting all pets from entering the Project area during construction.
- Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

Project Feature BIO-5: Invasive Weed Control: To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. 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. If 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 them 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 native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project area will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project.

If work occurs in sensitive habitat, vehicles and equipment would be thoroughly cleaned before arriving on the site to prevent the spread of noxious weeds from other locations.

Project Feature BIO-6: Worker Environmental Awareness Training: Prior to the start of construction, a biologist will provide a training session for all work personnel to identify any sensitive species that may be in the area, their basic habits, how they may be encountered in their work area, and procedures to follow when they are encountered. Any personnel joining the work crew later will receive the same training before beginning work. Upon completion of the education program, employees will sign a form stating they attended the program and understand all protection measures. A pamphlet that contains images of sensitive species that may occur within the Project and notes key avoidance measures, as well as employee guidance will be given to each person who completes the training program. These forms will be made available to the resource agencies upon request.

Project Feature CULT-1: Discovery of Cultural Resources. If previously unidentified cultural resources are unearthed during construction, work would be halted in that area until a qualified archaeologist can assess the significance of the discovery.

Project Feature CULT-2: Discovery of Human Remains. If remains are discovered, all work within 60 feet of the discovery would halt and Caltrans Cultural Resource Studies Office would be called. Caltrans Cultural Resources Studies Office staff would assess the remains and, if they are determined to be human, would contact the County Coroner, per Public Resources Code, Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the coroner determines the remains to be Native American, then the coroner would contact the Native American Heritage Commission, which would assign a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on treatment and reburial of the remains. Further provisions of Public Resources Code, Section 5097.98 would be followed as applicable.

Project Feature Energy-1: Minimize Energy Consumption from Construction Activities. The use of construction BMPs would minimize energy consumption from construction activities, including, but not limited to limit idling of vehicles and equipment; use solar power as a power source, if feasible; ensure regular maintenance of construction vehicles and equipment; and if feasible, recycle nonhazardous waste and excess materials to reduce disposal offsite.

Project Feature GHG-1: Control Measures for Greenhouse Gases. Measures would be determined during later Project phases and implemented during construction to ensure regular maintenance of construction vehicle and equipment; limit idling of vehicles and equipment on site; recycle nonhazardous waste and excess material if practicable; and use solar-powered signal boards, if feasible.

Project Feature WQ-1: Water Quality Best Management Practices: This Project will require a 401 permit from the San Francisco RWQCB. It is anticipated that the RWQCB permit would require a stormwater pollution prevention plan, which would provide guidance on erosion control BMPs to be implemented to minimize wind- or water-related erosion. These BMPs would also be implemented via language in the *Construction Site Best Management Practices (BMPs) Manual* (Caltrans 2017), which provides guidance for including provisions in all construction contracts to

protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges.

Project Feature WQ-2: Job Site Management: This non-stormwater discharge and waste management practice would include considerations for operations, illicit discharge detention and reporting, vehicle and equipment cleaning, vehicle and equipment fueling, and material use.

Project Feature WQ-3: Sediment Control Practices: Sediment control practices would include, but not be limited to, the following:

- Silt fence
- Sediment/distilling basin
- Check dam
- Fiber rolls (A fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers, rolled or bound into a tight tube shape and placed on the toe and face of slopes to intercept runoff, reduce the runoff's flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff.)
- Street sweeping and vacuuming

Project Feature WQ-4: Tracking Control Practices. Tracking control practices would include:

- Temporary (stabilized) construction entrance (exit)
- Temporary construction roadway
- Entrance/outlet tire wash
- Street sweeping and vacuuming

Project Feature WQ-5: Waste Management and Materials Pollution Control. Waste management and materials pollution control measures would be as follows:

- Stockpile management: This practice is needed to reduce or eliminate air and stormwater pollution from stockpiles of soil and paving materials.
- Concrete waste management: The concrete quantity has not been determined at this phase of the Project. However, it is imperative to confirm that procedures and practices are in place to eliminate or minimize the discharge of concrete slurry to the storm drain system. These measures would include, but not be limited to, the following:

  - Concrete slurry waste-handling procedures
  - Onsite concrete washout facility
  - Transit truck washout procedures
  - Procedures for removal of temporary concrete washout facilities
- Material delivery and storage
- Spill prevention control
- Solid waste management
- Hazardous waste and contaminated soil management
- Sanitary/septic and liquid waste management

Project Feature WQ-6: Non-stormwater Management. Non-stormwater management practices would include the following:

- Dewatering Operations: At this phase of the Project, no water table data or log of test boring have been provided. There is a bridge fender system upgrade involved in the Project scope and de-watering operation may prove to be a necessity on this Project. Dewatering effluent that would be discharged from the construction site to a storm drain or receiving water would be subject to requirements of the applicable National Pollutant Discharge Elimination System permit but would most often be regulated under a 401 certification or waste discharge requirements administered by RWQCB. An Active treatment system may be necessary to meet the effluent limits of the construction general permit for turbidity and pH in the stormwater.
- Pile-driving operations: Proper control and use of equipment, materials, and waste products generated by the pile-driving operations would reduce the discharge of potential pollutants to the storm drain system or receiving water bodies.
- Concrete curing: This BMP consists of procedures that would minimize pollution of stormwater runoff during concrete curing.
- Concrete finishing: This BMP consists of procedures that would minimize the impact concrete finishing methods may have on stormwater runoff. These methods would include sand blasting, lead shot blasting, grinding, or high-pressure water blasting.

- Water conservation practices
- Potable water/irrigation
- Vehicle and equipment operations (fueling, cleaning, and maintenance)
- Material and equipment use

Project Feature WQ-7: Soil Stabilization. Soil stabilization would include preservation of existing vegetation, slope protection, slope interrupter devices, and channelized flow.

Project Feature WQ-8: Wind Erosion Controls. Wind erosion controls would include hydraulic mulch and temporary covers.

Project Feature UTI-1: Trash Management. All food-related trash items, such as wrappers, cans, bottles, and food scraps, would 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 Caltrans Statewide National Pollution Discharge Elimination System Permit and San Francisco RWQCB Cease and Desist Order.

Avoidance and Minimization Measures

AMM AES-1: Revegetate disturbed soil areas and disturbed portions of the riparian corridor with native and climatically appropriate species.

AMM AES-2: Screen appearance of construction equipment and staging areas.

AMM AES-3: Use staging areas that do not damage existing vegetation or require vegetation or tree removal.

AMM AES-4: Limit light trespass with the use of directional lighting, shielding, and other measures as needed during nightwork. .

AMM BIO-1: Timing of Construction. Culvert replacement will occur during the dry season (April 15 to October 31), when CRLF are most likely to be estivating in moist refuges and not dispersing through the Project area. When culvert replacement activities must take place between November 1 and May 31, Caltrans will ensure that daily monitoring by the Project biologist is completed for the CRLF.

No construction activities will occur during rain events or within 24-hours following a rain event. Prior to construction activities resuming, the Project biologist will inspect the action area and all equipment/materials for the presence of CRLF.

AMM BIO-2: Proper Use of Erosion Control Devices. To prevent CRLF from becoming entangled or trapped in erosion control materials, the following: plastic monofilament netting (i.e., erosion control matting) or similar material will not be used. Acceptable substitutes would include coconut coir matting or tackified hydroseeding compounds.

AMM BIO-3: CRLF Pre-Construction Surveys. Pre-construction surveys for the CRLF will be conducted by the Project biologist within 14 calendar days of the initiation of Project activities in suitable upland habitat prior to ground-disturbing activities, vegetation removal, and WEF installation. Surveys will be conducted as outlined in the 2005 USFWS revised CRLF survey guidelines. Access to habitat during surveys may be limited by appropriate safety measures and protocols (USFWS 2005).

Pre-construction surveys will include:

- Foot surveys will be conducted of potential CRLF habitat within the Project limits and accessible adjacent areas (within at least 50 feet of Project limits).
- Potential cover sites (burrows, rocks, soil cracks, vegetation, and other potential refuge habitat) and any areas of disturbed soil for signs of CRLF will be investigated.

Native vertebrates found in cover sites within the Project limits will be documented and, if handling is allowed, relocated to an adequate cover site in the vicinity. Species cannot be relocated due to special protection status will be addressed in coordination with the appropriate agency(s) with jurisdiction.

AMM BIO-4: CRLF Biological Monitoring. During construction in and near potential California red-legged habitat, the following protocols will be observed by the Project biologist during construction monitoring:

- Within 24 hours prior to initial ground-disturbing activities, portions of the Project footprint where potential CRLF habitat has been identified will be surveyed by a Project biologist(s) to clear the site of CRLF moving above ground or taking refuge in burrow openings or under materials that could provide cover.

- A Project biologist(s) will be present during all initial ground-disturbing activities and vegetation removal in suitable refugia habitats for the CRLF to monitor the removal of the top 12 inches of topsoil.
- If potential aestivation burrows are discovered, the burrows will be flagged for avoidance.
- After a rain event, and prior to construction activities resuming, a qualified biologist will inspect the work area and all equipment/materials for the presence of CRLF.
- Upon discovery of a CRLF individual(s) in an active construction area, all work will cease within a 50-foot radius of the CRLF. The CRLF will be allowed to leave the site on its own; or if the CRLF does not leave on its own, it will be relocated as close to the Project site as feasible and with permission from the property owner; and placed in a natural burrow by a Project biologist with the appropriate USFWS 10(a)1(A) handling permit.

The USFWS will be notified by phone and email within one working day of any CRLF discovery in the Project area.

AMM BIO-5: NSO Biological Monitoring. Caltrans will submit the names and qualifications of the biological monitor(s) for USFWS approval at least 30 calendar days prior to initiating construction activities for the proposed Project. Only USFWS-approved biological monitors will implement the monitoring duties outlined in the Project description. The USFWS-approved biologist(s) will be onsite during all ground-disturbing activities. The biologist(s) has authority to contact the Resident Engineer or his or her designee if any work may result in take of a listed species. The Resident Engineer may act on this information by stopping the work. If the biologist(s) exercises this authority, USFWS will be notified by telephone and email message within 1 working day. During construction, a biological monitor will conduct daytime visual surveys for NSO within the active construction area and monitor any NSO nest sites within the action area identified during preconstruction or status surveys.

AMM BIO-6: Equipment Sound Control Devices. All equipment will have sound control devices that are no less effective than those provided by the manufacturer of the equipment. All equipment will be operated and maintained to minimize noise generation, and no equipment will have unmuffled exhaust systems.

AMM BIO-7: Auditory Disturbance. 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 suitable NSO nesting/roosting habitat between October 31 to July 9.

AMM BIO-8: Visual Disturbance. No human activities shall occur within a visual line-of-sight of 40 meters (131 feet) or less from any known nest locations within the action area.

AMM BIO-9: MAMU Biological Monitoring. Caltrans will submit the names and qualifications of the biological monitor(s) for USFWS approval at least 30 calendar days prior to initiating construction activities for the proposed Project. Only USFWS-approved biological monitors will implement the monitoring duties outlined in the Project description. The USFWS-approved biologist(s) will be onsite during all ground-disturbing activities. The biologist(s) has authority to contact the Resident Engineer or his or her designee if any work may result in take of a listed species. The Resident Engineer may act on this information by stopping the work. If the biologist(s) exercises this authority, USFWS will be notified by telephone and email message within 1 working day. During construction, a biological monitor will conduct daytime visual surveys for MAMU within the active construction area and monitor any MAMU nest sites within the action area identified during preconstruction or status surveys.

AMM BIO-10: Pre-construction Survey for *Viola adunca.* A pre-construction survey for *Viola adunca* will be conducted in the early spring, prior to construction, referencing phenology trends observed at Fort Ross or other nearby reference populations. If *Viola adunca* are found in the work area, they will be flagged for avoidance. Negative findings for *Viola adunca* within the action area will indicate that the footprint does not contain suitable breeding habitat for BSB.

AMM TRANS-1: Traffic Management Plan: To minimize potential effects from construction activities to motorists, bicyclists, or pedestrians using local streets, a TMP will be developed by Caltrans and implemented throughout construction. The TMP will include public information, motorist information, incident management, construction, and alternate routes. The TMP will also include elements, such as haul routes, one-way traffic control, flaggers, and phasing, to reduce impacts to local residents as much as feasible and to maintain access to businesses in the local area.

The TMP will also provide access for police and emergency service providers. Lane closures will be planned in coordination with Caltrans and Sonoma County; planning will include notices to emergency service providers, and the public in advance.

AMM UTI-1: Trash Management. All food-related trash items, such as wrappers, cans, bottles, and food scraps, would 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 Caltrans Statewide National Pollution Discharge Elimination System Permit and San Francisco RWQCB Cease and Desist Order.

Appendix C Species Tables

Table C-1. Special-status Plant Species Occurring or with Potential to Occur in the BSA

Scientific Name	Common Name	FED Status	CA Status	CA Rare Plant Rank	Blooming Period	General Habitat	Micro Habitat	Suitable Habitat in BSA	Potential to Occur in BSA	Effect Finding for Federally Listed Species
Alopecurus aequalis var. *sonomensis*	Sonoma alopecurus	FE	None	1B.1	May to July	Freshwater marshes and swamps, riparian scrub.	Wet areas, marshes, and riparian banks, with other wetland species. 3 to 360 meters	None	**None**. Outside species' known range.	No Effect
Chorizanthe valida	Sonoma spineflower	FE	CE	1B.1	June to August	Coastal prairie.	Sandy soil. 5 to 50 meters	None	**None.** Suitable habitat is not present. Nearest CNDDB occurrence 10 miles SE.	No Effect
Cordylanthus brunneus ssp. *capillaris*	Pennell's bird's-beak	FE	CR	1B.1	March to June	Closed-cone coniferous forest, chaparral.	In open or disturbed areas on serpentine within forest or chaparral. 90 to 215 meters	None	**None.** Suitable habitat is not present. No CNDDB occurrence within 5 miles.	No Effect
Delphinium bakeri	Baker's larkspur	FE	CR	1B.1	March to June	Broadleafed upland forest, coastal scrub, valley and foothill grassland.	Only site occurs on NW-facing slope, on decomposed shale. Historically known from grassy areas along fencelines too. 105 to 205 meters	None	**None.** Suitable habitat is not present. No CNDDB occurrence within 5 miles.	No Effect
Delphinium luteum	golden larkspur	FE	CR	1B.1	March to May	Chaparral, coastal prairie, coastal scrub.	North-facing rocky slopes. 5 to 100 meters	None	**None.** Suitable habitat is not present. No CNDDB occurrence within 5 miles.	No Effect
Limnanthes vinculans	Sebastopol meadowfoam	FE	CE	1B.1	April to May	Meadows and seeps, vernal pools, valley and foothill grassland.	Swales, wet meadows and marshy areas in valley oak savanna; on poorly drained soils of clays and sandy loam. 15 to 115 meters	None	**None.** Suitable habitat is not present. No CNDDB occurrence within 5 miles.	No Effect
Lupinus tidestromii	Tidestrom's lupine	FE	CE	1B.1	April to June	Coastal dunes.	Partially stabilized dunes, immediately near the ocean. 4 to 25 meters	None	**None.** No suitable habitat in BSA.	No Effect
Piperia candida	white-flowered rein orchid	FE	CT	1B.2	(March) May to September	North Coast coniferous forest, lower montane coniferous forest, broadleafed upland forest.	Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 20 to 1615 meters	None	**None.** No suitable habitat in BSA. Nearest CNDDB occurrence 3.7 miles NE.	No Effect
Trifolium amoenum	two-fork clover	FE	None	1B.1	April to June	Valley and foothill grassland, coastal bluff scrub.	Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 5 to 310 meters	None	**None.** Suitable habitat is not present. No CNDDB occurrence within 5 miles.	No Effect

Sources:

California Department of Fish and Wildlife. 2022a. California Natural Diversity Database (CNDDB). RareFind 5. Wildlife and Habitat Data Analysis Branch. Sacramento, California. Accessed on October 5, 2021 and August 1, 2022.

U.S. Fish and Wildlife Service. 2022a. Information for Planning and Consultation (IPaC) System. Accessed August 1, 2022.

California Native Plant Society, Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed August 1, 2022.

Federal and California Endangered Species Act Listing Status

CE = California Endangered (any species at risk of becoming extinct in all or a significant portion of its range)

CT = California Threatened (any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range)
CR = California Rare
FE = Federal Endangered (any species in danger of extinction throughout all or a significant portion of its range)
FT = Federal Threatened (any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range)

California Rare Plant Ranks
1A = Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B = Plants Rare, Threatened, or Endangered in California and Elsewhere
2A = Plants Presumed Extirpated in California, But Common Elsewhere
2B = Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere 3 = Plants About Which More Information is Needed - A Review List
4 = Plants of Limited Distribution - A Watch List - Evaluation for impact significance is recommended [not required].
0.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Habitat or species code
A: Absent
HP: Habitat Present
P: Present

Notes
CA = California
CNDDB = California Natural Diversity Database
FED = federal

Table C-2. Special-status Animal Species Occurring or with Potential to Occur in the BSA

Species	Scientific Name	Common Name	FED Status	CA Status	General Habitat Requirement	Habitat or Species Presence	Potential to Occur in BSA	Effect Finding for Federally Listed Species
Mammals	*Arctocephalus townsendi*	Guadalupe fur seal	FT	FP	Breeds on Isla de Guadalupe off of Mexico, occasionally found on San Miguel, San Nicolas, and San Clemente islands. Prefers shallow, nearshore island water, with cool and sheltered rocky areas for haul-outs.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Mammals	*Balaenoptera borealis*	sei whale	FE	None	Prefer subtropical to subpolar waters on the continental shelf edge and slope worldwide. They are usually observed in deeper waters of oceanic areas far from the coastline.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Mammals	*Balaenoptera musculus*	blue whale	FE	None	Found worldwide, from sub-polar to sub-tropical latitudes.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Mammals	*Balaenoptera physalus*	fin whale	FE	None	Found in deep, offshore waters of all major oceans.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Mammals	*Eubalaena japonica*	Northern Pacific right whale	FE	None	Coastal waters. Nursery areas are in shallow, coastal waters. Primarily occur in coastal or shelf waters, although movements over deep waters are known. During winter, occur in lower latitudes and coastal waters where calving takes place. North Pacific Right whales migrate to higher latitudes during spring and summer.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Mammals	*Megaptera novaeangliae*	humpback whale	FE	None	Humpback whales live throughout the world's major oceans. They travel great distances during their seasonal migration with some animals migrating 5,000 miles between high-latitude summer feeding grounds and winter mating and calving areas in tropical waters.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Mammals	*Orcinus orca*	southern resident killer whale	FE	None	Found in all oceans. These whales can adapt to almost any conditions and appear to be at home in both open seas and coastal waters.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Mammals	*Physeter macrodephalus*	sperm whale	FE	None	Inhabit all the world’s oceans. Uncommon in waters less than 984 feet deep. Immature males will stay with females in tropical and subtropical waters until they migrate towards the poles. Older, larger males are generally found near the edge of pack ice in both hemispheres.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Birds	*Ammodramus savannarum*	grasshopper sparrow	SSC	None	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Absent	**Low.** No suitable habitat present in BSA. Nearest CNDDB occurrence is 2.5 miles NNW.	No Effect
Birds	*Brachyramphus marmoratus*	marbled murrelet	FT	SSC	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	Absent	**Low.** No suitable habitat present in BSA. Nearest CNDDB occurrence is 2.25 miles NNE.	May Affect, Not Likely To Adversely Affect
Birds	*Charadrius nivosus nivosus*	western snowy plover	FT	SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Absent	**None.** No suitable habitat present in BSA. Nearest CNDDB occurrence is 25 miles NW.	No Effect

Species	Scientific Name	Common Name	FED Status	CA Status	General Habitat Requirement	Habitat or Species Presence	Potential to Occur in BSA	Effect Finding for Federally Listed Species
Birds	*Strix occidentalis caurina*	northern spotted owl	FT	CT	Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices. A permanent resident throughout its range; found in the north Coast, Klamath, and western Cascade Range from Del Norte County to Marin County.	Absent	**Low.** No suitable habitat present in BSA. Nearest CNDDB occurrence is 2.7 miles NNE.	May Affect, Not Likely To Adversely Affect
Reptiles	*Chelonia mydas*	green sea turtle	FT	None	Green turtles are highly migratory and use a wide range of separated localities and habitats. Common in shallow tropical and subtropical waters, oceanic zones, and neritic zones, including sea grass beds and coastline beaches.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Reptiles	*Dermochelys coriacea*	leatherback sea turtle	FE	None	Mostly pelagic, but also forage in coastal waters. Mate in waters adjacent to nesting beaches and migratory corridors. After nesting, females migrate from tropical waters to more temperate latitudes.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Reptiles	*Lepidochelys olivacea*	olive ridley sea turtle	FE	None	Tropical and warm temperate open ocean waters. Mainly a pelagic sea turtle, but has been known to inhabit coastal areas, including bays and estuaries.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Amphibians	*Rana draytonii*	California red-legged frog	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Absent	**Low.** No suitable habitat present in BSA. Nearest CNDDB occurrence is 11.5 miles NW of BSA.	May Affect, Not Likely to Adversely Affect
Fish	*Acipenser medirostris*	green sturgeon	FT	SSC	Highly marine sturgeon species, entering rivers mainly to spawn. Found coastally from Mexico to Alaska but in rivers only from British Columbia to the Sacramento River (Moyle, 2002). Spawn locally in Sacramento River and possibly San Joaquin River in deep, fast-moving water (Moyle 2002).	Absent	**None.** No suitable habitat present in BSA.	No Effect
Fish	*Eucyclogobius caurina*	tidewater goby	FE	None	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Absent	**None**. Outside of known species range.	No Effect
Fish	*Oncorhynchus kisutch* pop. 4	Coho salmon, central California coast	FE	CE	Federal listing = pops between Punta Gorda and San Lorenzo River. State listing = pops south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Fish	*Oncorhynchus mykiss irideus* pop. 8	Central California coastal steelhead	FT	None	Cool freshwater streams and rivers, requires sand and gravel for spawning. Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Fish	*Oncorhynchus mykiss irideus* pop. 16	Northern California steelhead	FT	None	Coastal basins from Redwood Creek south to the Gualala River, inclusive. Does not include summer-run steelhead.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Fish	*Oncorhynchus tshawytscha* pop. 17	California coastal chinook salmon	FT	None	coastal, spring and fall runs between Redwood Cr, Humboldt Co and Russian River, Sonoma Co	Absent	**None.** Outside of known species range.	No Effect

Species	Scientific Name	Common Name	FED Status	CA Status	General Habitat Requirement	Habitat or Species Presence	Potential to Occur in BSA	Effect Finding for Federally Listed Species
Fish	*Spirinchus thaleichthys*	longfin smelt	C	CT	Spend most of their lives in the ocean and return back to coastal freshwater streams to spawn and die. In the ocean, eulachon live and feed in both shallow and deepwater areas. Eulachon rarely swim further than 10 to 12 kilometers upstream, and males are typically first to arrive at the spawning grounds which are typified by gravel, sand, wood, and other debris.	Absent	**None.** Outside of known species range.	No Effect
Crustaceans	*Syncaris pacifica*	California freshwater shrimp	FE	CE	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	Absent	**None.** No suitable habitat present in BSA.	No Effect
Insects	*Lycaeides argyrognomon lotis*	lotis blue butterfly	FE	None	Inhabits wet meadows or poorly-drained sphagnum-willow bogs, where soils are waterlogged and acidic; north coastal Calif. Inhabits upper edges of peat bog between peat and surrounding low willows; host plant is suspected to be Hosackia gracilis.	Absent	**None.** No suitable habitat present in BSA. Nearest CNDDB occurrence is 26 miles NE of BSA.	No Effect
Insects	*Speyeria zerene bayensis*	Behren's silverspot butterfly	FE	None	Restricted to the Pacific side of the Coast Ranges, from Point Arena to Cape Mendocino, Mendocino Co. Inhabits coastal terrace prairie habitat. Larval foodplant thought to be Viola adunca.	Absent	**Low to Moderate.** Habitat in BSA could support larval host plant Viola adunca, surveys will be needed to be performed in the blooming season.	Unknown at this time
Insects	*Speyeria zerene myrtleae*	Myrtle's silverspot butterfly	FE	None	Restricted to the foggy, coastal dunes/hills of the Point Reyes peninsula; extirpated from coastal San Mateo County. Larval foodplant thought to be Viola adunca.	Absent	**None.** Outside of species' known range.	No Effect

Sources:

California Department of Fish and Wildlife. 2022a. California Natural Diversity Database (CNDDB). RareFind 5. Wildlife and Habitat Data Analysis Branch. Sacramento, California. Accessed on October 5, 2021 and August 1, 2022.

California Department of Fish and Wildlife. 2022b. Biogeographic Information and Observation System. California Natural Diversity Database/Spotted Owl Viewer Database. Biogeographic Data Branch. Sacramento, California. Available online at https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed on August 1, 2022.

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Federal Endangered Species Act Listing Status

C: Candidate (candidate to become a listed species)
FSC: Species of Concern
FE: Endangered (any species in danger of extinction throughout all or a significant portion of its range)
FT: Threatened (any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range)

California Endangered Species Act Listing Status

FP: Fully Protected
SSC: Species of Special Concern
CE: Endangered (any species at risk of becoming extinct in all or a significant portion of its range)
CT: Threatened (any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range)
C: Candidate (candidate to become a listed species)
WL: Watch List

Appendix D Acronyms and Abbreviations

Acronym	Definition
AES	aesthetics
AMM	avoidance and minimization measure
BIO	biology
BMP	best management practice
BSA	biological study area
BSB	Behren's silverspot butterfly
Caltrans	California Department of Transportation
CCA	California Coastal Act
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California giant salamander
CH_4	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRLF	California red-legged frog
CSP	corrugated steel pipe

Acronym	Definition
CULT	cultural
DPS	distinct population segment
EFH	essential fish habitat
ESHA	environmentally sensitive habitat area
EIR	environmental impact report
FHWA	Federal Highway Administration
GHG	greenhouse gas
LCP	Local Coastal Program
MAMU	marbled murrelet
MTC	Metropolitan Transportation Commission
N_2O	nitrous oxide
NES	Natural Environment Study
NOAA Fisheries	National Oceanic and Atmospheric Administration Fisheries Service
NSO	northern spotted owl
PM	post mile
ROW	right of way
RWQCB	Regional Water Quality Control Board
SCTA	Sonoma County Transportation Authority
SHOPP	State Highway Operation and Protection Program
SR	State Route

Acronym	Definition
SSC	species of special concern
THPO	Tribal Historic Preservation Officer
TMP	Traffic Management Plan
TRANS	transportation and traffic
USACE	U.S. Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VIA	visual impact assessment
WQ	water quality

Appendix E List of Technical Studies and References

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