SON 1 Drainage System Restoration Project

Initial Study with Proposed Mitigated Negative Declaration

SONOMA COUNTY, CALIFORNIA
DISTRICT 4 – SON – 1 (PM 51.1-56.4)
04-0W740/0420000285

Prepared by the
State of California, Department of Transportation

June 2024

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 Mitigated Negative Declaration (MND) for the proposed SON 1 Drainage System Restoration Project (Project), Sonoma County, California. The proposed Project is on SR 1 in Sonoma County from Post Mile (PM) 51.1 to PM 56.4. The Project proposes to replace 15 culverts at various locations along SR 1 from Moonraker Road to 2.2 miles south of Gualala River Bridge.

As the lead agency under the California Environmental Quality Act (CEQA), Caltrans has prepared this IS/MND 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 three locations in the vicinity of the proposed Project:

  Coast Community Branch of Mendocino County Library
  225 Main Street
  Point Arena, CA 95468

  United States Post Office
  60 Sea Walk Drive
  Sea Ranch, CA 95947
  (707) 785-4245

  Guerneville Regional Library
  14107 Armstrong Woods Road
  Guerneville, CA 95446

- We would like to hear what you think. Please send comments by the August 10, 2024 deadline to:

  Caltrans, District 4
  ATTN: Christopher Pincetich, Senior Environmental Scientist
  111 Grand Avenue
  P.O. Box 23660, MS-8B
  Oakland, CA 94623-0660

  Or the SON 1 Drainage Restoration Project email address:
  son1drainagerestorationproject@dot.ca.gov

What happens next:

Per CEQA Section 15073, Caltrans will circulate the IS/MND for review for 30 days from July 11, 2024, to August 10, 2024. 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 Mitigated Negative Declaration

04-SON-1	51.1-56.4	04-0W740
Dist. – Co. – Rte.	PM	E.A.

Project title:	SON 1 Drainage System Restoration
Lead agency name and address:	California Department of Transportation 111 Grand Avenue, Oakland, CA 94612
Contact person and phone number:	Christopher Pincetich, Senior Environmental Scientist (408) 590-4167 or Katherine Neylan, Environmental Scientist at (510) 407-3670
Project location:	Sonoma County, California
General plan description:	Highway
Zoning:	Transportation corridor
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 (CDP) or Local CDP with potential for a joint State CDP • Biological Opinion 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.

Larry E. Bonner

06/27/2024

Lawrence Bonner
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: Christopher Pincetich, Senior Environmental Scientist, 111 Grand Avenue, MS 8-B, Oakland CA 94612: (408) 590-4167 (Voice) or use the **California Relay Service (800) 735-2929 (TTY)**, **(800) 735-2929 (Voice)** or **711**.

Proposed Mitigated Negative Declaration

Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS) with Proposed Mitigated Negative Declaration (MND) for the proposed SON 1 Drainage System Restoration Project (Project), in Sonoma County, California, from post mile (PM) 51.1 to 56.4. The Project proposes to replace 15 culverts from Moonraker Road to 2.2 miles south of Gualala River Bridge. Additional project information is provided in Chapter 2.

Determination

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

Caltrans has prepared an IS/MND 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 air quality, geology and soils, land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources.
- The proposed Project would have less than significant impacts on aesthetics, agriculture and forest resources, biological resources, cultural resources, energy, greenhouse gas emissions, hazards and hazardous waste, hydrology and water quality, noise, transportation and traffic, utilities and service systems, and wildfire.

_____ _____

Christopher Caputo
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 SON 1 Drainage System Restoration Project (Project).

The proposed Project is located in Sonoma County, California, on SR 1 from PM 51.1 to 56.4 (Figure 1-1 in Appendix A). The Project proposes to replace 15 existing damaged or failed culverts from Moonraker Road to 2.2 miles south of Gualala River. Additional Project details are presented in Chapter 2.

This Project would be funded by the State Highway Operation and Protection Program (SHOPP) under code 201.151 for the 2025-2026 fiscal year.

1.2 Purpose and Need

The purpose of this Project is to repair or replace damaged culverts, thus maintaining structural integrity of the culverts and ensuring public safety.

The 15 existing culverts identified exhibit various material and hydraulic deficiencies due to corrosion, deformation, joint separation, and abrasion damage. If not addressed, these conditions could lead to a lack of hydraulic capacity that may compromise the safety of the traveling public and limit access of emergency services to the affected areas. Rehabilitation of the culverts would prevent further damage and possible failure of the roadway.

Chapter 2 Project Description

2.1 Introduction

State Route (SR) 1 is a 549-mile-long major north-south State highway that runs along most of the Pacific coastline, with long sections situated on coastal bluffs and others along beaches. Various portions of SR 1 are designated as either Pacific Coast Highway, Cabrillo Highway, Shoreline Highway, or Coast Highway. In Sonoma County, SR 1 is categorized as an Eligible California Scenic Highway.

The Project footprint is located along the northern coastline of Sonoma County. This segment of SR 1 provides access from the San Francisco Bay area to recreational areas and beaches along the Pacific coast. It is an important connector between local residents and businesses of unincorporated Sonoma County. SR 1 is the only road connecting several coastal communities and is critical for access of emergency services to these areas.

The 5-mile stretch along SR 1 from PM 51.1 to 56.4 is defined for this Project as the "Project corridor" (Figure 1-1 in Appendix A). The Project corridor is primarily a two-lane rural conventional highway that runs north/south through forested, rural residential, agricultural, and coastal areas.

2.2 Culvert Work

In 2023, Caltrans Office of Hydraulics performed field surveys along the Project corridor and determined that several drainage systems have either materially or hydraulically deteriorated. The scope of the Project includes rehabilitation of culverts at 15 locations within the Project corridor (Figure 2-1 in Appendix A).

At each location, the main culvert pipe would be removed and replaced with a new pipe of the same or larger size, and some locations would include adding new flared end sections (FES), regrading, and/or constructing a new headwall for the culvert inlet. The details of proposed work at the 15 Project work locations are listed in Table 2-1.

Table 2-1. Project Design Elements

Location	Postmile	Existing Diameter (inch)	Existing Length (feet)	Existing Type*	Proposed Rehabilitation Strategies
1	51.18	30	61	Corrugated steel pipe (CSP)	• Remove and replace existing culvert with 36-inch culvert. • Add flared end section (FES) at upstream end.
2	51.35	18	40	CSP	• Remove and replace existing pipe with 35-inch x 24-inch Corrugated Steel Pipe Arch (CSPA) culvert. • Grade at upstream and downstream ends, regrade roadside ditch in the NB direction. • Headwalls may be required.
3	51.75	49 x 33	56	CSPA	• Replace existing CSPA in kind. • Add FES to both upstream and downstream ends.
4	52.21	36	64	Reinforced concrete pipe (RCP)	• Replace with a 48-inch CSP or equivalent. • Remove and replace FES at upstream end. • May need to regrade at upstream and downstream ends. • Drainage box downstream may need to be removed and replaced.
5	52.83	35 x 24	44	CSPA	• Replace existing CSPA in kind. • Install a headwall at upstream end. • Rebuild NB shoulder. • Re-establish and shift ditch away from shoulder in NB direction.
6	53.13	49 x 33	64	CSPA	• Replace the existing CSPA in kind. • Install headwall or FES at upstream end. • Headwall may be needed at downstream end. • Regrade ditch at downstream end.
7	53.24	18	44	CSP	• Replace existing CSP in kind. • Regrade the downstream end. • Install new drainage inlet upstream
8	53.76	15	29	RCP	• Replace with a 36-inch RCP culvert. • Side slope repair. • Headwalls or FES may be needed at upstream and downstream ends.
9	53.96	54	96	CSP	• Replace existing CSP in kind. • If possible, realign culvert to eliminate angle point beneath SB shoulder. • Headwalls may be needed at both ends.

Location	Postmile	Existing Diameter (inch)	Existing Length (feet)	Existing Type*	Proposed Rehabilitation Strategies
10	54.30	24	48	RCP	• Replace with a 36-inch CSP culvert. • Add headwall or slope work at upstream and downstream ends.
11	54.41	18 x 12	45	CSPA	• Replace with a 28-inch x 20-inch CSPA.
12	54.91	12	32	RCP	• Replace RCP culvert with 35-inch by 24-inch CSPA • Regrade upstream and downstream ends.
13	55.14	36	60	CSP	• Replace CSP culvert in kind. • May need to realign pipe as it runs under a tree. • Drainage structure would be needed if realignment is done. • Remove rock slope protection (RSP) and replace with FES upstream and downstream.
14	55.36	54	50	CSP	• Replace CSP culvert in kind. • Install headwalls at upstream and downstream ends.
15	56.37	24	66	CSP	• Replace culvert in kind or revise vertical alignment. • Install downdrain and RSP at downstream end.

Headwall: Headwalls are concrete walls that are used to prevent the creation of an overly steep side slope, to improve water flow, to provide anchoring support to prevent the culvert from dislodging under excessive pressures, to control erosion and scour from high water velocities, and to prevent adjacent soil from sloughing into the waterway and culvert opening. Headwalls also confine pipe segments to prevent joint separation which may lead to leaks into the soil around the culvert. Headwalls are typically installed at the upstream end of a culvert; but may also be constructed at the downstream end. Headwall dimensions will vary at each site.

Flared End Section: Flared end sections are a type of end treatment used at the entrance of a culvert to improve the hydraulic efficiency of the drainage system and retention of the surrounding embankment by preventing scouring and undercutting.

Drainage Inlet: A drainage inlet is the opening in the storm drainage system that collects water from roads and other offsite areas and conveys it to the storm drain system.

Grading: Grading would occur upstream and/or downstream of most culverts to allow the water flow properly to the culverts and reduce potential erosion. Grading of roadway ditches is proposed at some locations to eliminate ponding and ensure that stormwater flows to roadway culverts. The limits of grading at each location depends on the existing topography and the amount of soil/earth to be moved to direct runoff into adjacent drainage systems.

Rock Slope Protection (RSP): RSP consists of a layer of rocks used to stabilize slopes and prevent erosion. RSP would be installed downstream at culvert 15. To install RSP, loose rock and sediment would be removed and the slope graded to a depth of relatively stable sediment. Gravel, coconut coir matting, hydroseeding compounds, or engineered streambed material would then be placed over the sediment and covered with large rocks. Rock used in RSP would blend with the native rock and soil.

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 and will occur on and off the roadway. Staging will primarily be located within lane closures (one-way traffic control) during non-peak hours or night closures. Staging areas within Caltrans right of way (ROW) will be identified for the Project on compacted gravel and disturbed areas adjacent to the work areas. The work at each culvert location will be constructed in two stages, one side of the highway at a time, to minimize the disruption of traffic during construction. Portable cones will be used to separate the lane open to traffic and the lane under construction. A detailed construction staging plan will be developed in the next phase of the Project.

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 longitudinally within the northbound lane from PM 51.1 to 56.4. This communications cable was installed by Verizon Inc. and currently is owned and managed by Frontier California Inc. (Frontier). The cable company will need to be contacted and notified of construction schedules for each proposed culvert location within the pavement cable limits.

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. Vegetation clearing may include tree trimming and tree removals.

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 Spring 2026 and is expected to last for 12 months. The culverts within the Project will each be constructed in two stages, one side of the highway at a time, to minimize traffic disruption.

2.4 Project Features

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

2.5 Right of Way Requirements

Eleven culvert locations will require access to areas outside Caltrans right of way. It is estimated that up to 13 permanent drainage easements (PDEs) would be needed for the project to access culverts for maintenance, because some culvert locations overlap with multiple parcels (Table 2-2).

Table 2-2. Permanent Drainage Easements by Location

Location	Postmile	West of roadway (square feet)	East of roadway (square feet)
1	51.18	N/A	350
2	51.35	1220	N/A
3	51.75	260	N/A

Location	Postmile	West of roadway (square feet)	East of roadway (square feet)
4	52.21	1520	290
5	52.83	N/A	130
6	53.13	800	N/A
8	53.76	100	N/A
10	54.30	N/A	1100 (2 parcels)
11	54.41	150	N/A
14	55.36	200	N/A
15	56.37	120	N/A

N/A = not applicable

2.6 Permits and Approvals Needed

Table 2-3 lists the permits, licenses, agreements, and certifications that are anticipated to be required for Project construction.

Table 2-3. Required Permits

Agency	Permit	Permit Status
U.S. Army Corps of Engineers	Section 404 Permit	Application submittal anticipated during the design phase
State Water Resources Control Board	Section 401 Water Quality Certification	Application submittal anticipated during the design phase
U.S. Fish and Wildlife Service	Biological Opinion for California red-legged frog, marbled murrelet, northern spotted owl, and Behren's silverspot butterfly	Application submittal anticipated during the design phase
California Department of Fish and Wildlife	Section 1602 Lake and Streambed Alteration Agreement	Application submittal anticipated during the design phase
California Coastal Commission Or Sonoma County Local Coastal Program	State CPD or Local CDP with potential for a joint CDP	Application submittal anticipated during the design 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: air quality, geology and soils, land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources. 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.

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

3.2 Determination

On the basis of this initial evaluation:

	Caltrans finds that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	Caltrans finds 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.
	Caltrans finds that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	Caltrans finds 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.
	Caltrans finds 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.

3.3 CEQA Environmental Checklist

The CEQA Environmental Checklist (presented at the beginning of each resource section below in the form of a table listing the pertinent questions applicable to the resource) 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 PFs are 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?	Less than significant impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than significant impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less than significant impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant impact

CEQA Significance Determinations for Aesthetics

A *Visual Impact Assessment* (VIA) was completed by the Caltrans Office of Landscape Architecture on May 1, 2024 (Caltrans 2024a). The VIA was prepared in accordance with the guidelines in the Federal Highway Administration's (FHWA) *Visual Impact Assessments for Highway Projects* (FHWA 1981).

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 Coastal Zone per California Coastal Commission (CCC), 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) Less than Significant Impact

The Project would not have a substantial adverse effect on a scenic vista. As analyzed in the VIA (Caltrans 2024a), 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 would not impact or degrade the existing visual character or quality of the Project area. The Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, the impact would be less than significant.

Temporary construction impacts to visual resources would be less than significant and would include roadside vegetation removal, staging of materials and equipment, and lighting during nightwork. 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 (Caltrans 2019) will be pursued as appropriate to further reduce Project impacts. Additionally, avoidance and minimization measures (AMMs) to limit impact to visual resources will be implemented to the greatest extent practicable.

Avoidance and Minimization Measures

Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts to aesthetics. AMM AES-1 through AMM AES-7 are listed here and summarized in Appendix B.

AMM AES-1: Minimize impacts to existing vegetation. Vegetation to remain will be protected from construction activities by temporary environmentally sensitive area (ESA) fencing when close to construction work or staging areas, especially mature trees and shrubs.

AMM AES-2: Staging areas shall not be located where they require the removal of plants other than weedy vegetation or cause the compaction of any tree roots.

AMM AES-3: Where the pruning of trees is required to accommodate construction operations, pruning must be done under the supervision of an ISA certified arborist with standards outlined by ANSI A300 Part 1 by the Tree Care Industry Association.

AMM AES-4: Surfaces of structural elements, such as headwalls, and drainage infrastructure, such as exposed piping, will be treated with aesthetic surfacing to limit visual contrast from the surroundings.

AMM AES-5: Construction materials and equipment shall be stored in screened staging areas.

AMM AES-6: Light trespass outside of the work areas will be limited through the use of directional lighting, shielding, and other measures, as needed, during nightwork.

AMM AES-7: Vegetated areas shall be restored to pre-project visual conditions, including all areas disturbed by equipment access, by applying climate appropriate, native erosion control seeding and/or mulch, and associated permanent erosion control measures.

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?	Less than Significant Impact

CEQA Significance Determinations for Agriculture and Forest Resources

a, b, c, d) No Impact

Within the Project limits the surrounding area primarily consists of rural coastal open space, very low density residential, and some timberland. There are no designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the project area that will be converted to non-agricultural use. Therefore, no impact would occur.

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.

The Project would not convert forest land or conflict with existing timberland zoning. Therefore, there would be no impact to forests or timberlands.

e) Less than Significant Impact

Land designated as farmland of local importance is present in the Project footprint. Caltrans is anticipating the need to acquire permanent drainage easements at approximately 11 culvert rehabilitation locations within the Project corridor. Four of the proposed easements would be overlapping with land designated as farmland of local importance. However, none of these parcels are currently used for agriculture. These easements are anticipated to be minimal in size and will not conflict with the ability for the parcels to be used for agriculture in the future. Therefore, the impact would be less than significant.

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

This Project is exempt from the requirement to determine air quality conformity per 40 Code of Federal Regulations (CFR) 93.126 Table 2, Safety - Pavement resurfacing and/or rehabilitation. Therefore, an air quality study is not required (Rehman [Caltrans], pers. comm. 2023). However, the Project would be required to comply with Caltrans Standard Specification 14-9, Air Quality, which requires compliance with air-pollution control rules, regulations, ordinances, and statutes that apply in the Project area.

a, b, c, d) No Impact

During construction, air pollutants are expected to be minimal to negligible. The Project would not conflict with or obstruct the implementation of an applicable air quality plan, 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, expose sensitive receptors to substantial pollutant concentrations, or result in other emissions adversely affecting a substantial number of people. Potential impacts to air quality, including violation of air quality standards, criteria pollutants, exposure of sensitive receptors to pollutants, and creation of odors, are not anticipated based on the scope of the proposed Project. PF AQ-1 will help ensure that there are no impacts from fugitive dust.

Project Feature

PF AQ-1: Control Measures for Construction Emissions of Fugitive Dust. Dust control measures will be implemented to minimize airborne dust and soil particles generated from graded areas. For disturbed soil areas, the use of an organic tackifier to control dust emissions will be included in the construction contract. Watering guidelines will be established by the contractor and approved by the Caltrans Resident Engineer. Any material stockpiles during construction will be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion.

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 with Mitigation Incorporated
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than Significant Impact with Mitigation Incorporated
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

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 2024b). 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 defined as the area that may be directly impacted by the culvert replacement construction work. In total, the BSA is 4.22 acres and encompasses the Project footprint at each location with an approximately 50-foot buffer around each culvert (Figure 3-1 in Appendix A).

The BSA is generally comprised of dense Bishop pine (*Pinus muricata*) forest interspersed with grasslands and coyote brush scrub (*Baccharis pilularis*). There are occasional patches of redwood (*Sequoia sempervirens*) and Douglas fir (*Pseudotsuga*

menziesii) in riparian canyons. Monterey cypress (*Hesperocyparis macrocarpa*) has been planted to break the prevailing winds. Small creeks and drainages support dense thickets of riparian scrub and forest in several locations along the coastal terrace.

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) California Natural Diversity Database (CNDDB) (CDFW 2024); species list and critical habitat from the U.S. Fish and Wildlife Service (USFWS) (USFWS 2024a), a species list from National Marine Fisheries Service (NMFS 2024); the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2024); USFWS National Wetlands Inventory database (USFWS 2024b); and Natural Resources Conservation Service (NRCS) soils information was reviewed (NRCS 2024) for wetlands analysis and potential habitat for special-status plant species analysis. 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, various field studies were conducted at each location within the BSA to assess existing natural resources. Field studies used in the preparation of the NES include:

- Aquatic resource delineations;
- Rare plant habitat assessment and special-status plant surveys;
- Vegetation assessment;
- Special-status species habitat assessments;
- Tree surveys;
- Environmentally sensitive habitat (ESHA) surveys; and
- Fish habitat and fish passage assessments.

a) Less than Significant Impact

With implementation of PFs and AMMs identified later in this section (and 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.

Special-status species potentially present within or adjacent to the BSA are discussed in the following subsections and compiled in Appendix D (Table D-1 and Table D-2).

Special-Status Plant Species

Based on literature and database searches, a total of 14 special-status plant species were identified as potentially occurring (Table D-1).

During the early season survey on April 26, 2024, no State or federally listed species were observed. However, two species with a CNPS ranking of 4.2 (limited distribution) were observed. Pink-star tulip (*Calochortus uniflorus*) was observed at location 10, and harlequin lotus (*Hosackia gracilis*) was observed at locations 5, 7, and 10. Both species were found within the BSA, but outside of the Project footprint of the drainage work. The mid-season survey is scheduled for July and will be included in the Final Environmental Document. The late season survey is scheduled for later in 2024. The results of all surveys will be used to inform avoidance and minimization of potential impacts to special-status plant species during construction.

Implementation of the following PFs would avoid and minimize impacts to special-status plant species and their habitat: PF BIO-2: Environmentally Sensitive Area Fencing, PF BIO-5: Construction-site Management Practices, PF BIO-6: Worker Environmental Awareness Training, PF BIO-9: Vegetation Removal, PF BIO-10: Replant, Reseed, and Restore Disturbed Areas, and PF BIO-11: Reduce Spread of Invasive Species. Therefore, the impact would be less than significant.

Special-Status Wildlife Species

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). A CRLF was observed at location 14 (PM 55.36) on May 9, 2023 during a Project site review. There is one CNDDB record from 2016 of four individuals that were observed 1.75 miles northwest of location 15 (CDFW 2024). The iNaturalist database shows two research-grade occurrences in the vicinity of the Project: in 2020, one individual was observed near the mouth of the Gualala River, within 2 miles north of the BSA; and in 2021, two adult frogs were observed within 1.5 miles northeast of the BSA (iNaturalist 2023).

USFWS issued a final designation of critical habitat for the CRLF in 2010 (USFWS 2010). Based on this designation, there is no CRLF critical habitat within the BSA, and the nearest critical habitat unit is approximately 15 miles northwest of the Project.

All culvert locations are considered to have suitable upland habitat for CRLF in the form of adjacent grassland and riparian vegetation. Suitable aquatic non-breeding habitat is present at most culvert locations as well. There is no aquatic breeding habitat suitable for CRLF in the BSA.

The proposed Federal Endangered Species Act (FESA) Section 7 effects determination is that the project is likely to adversely affect CRLF. Potential Project impacts to CRLF include the potential loss of individuals during vegetation removal, removal of the existing culverts, and installation of the new culverts. The Project would result in direct temporary effects to both suitable upland dispersal and aquatic non-breeding habitats for CRLF, however, temporary impact areas will be restored following construction and habitat conditions are expected to return to pre-construction conditions within 1-3 years following restoration activities. The Project will not create any new permanent features that will impede the movement of CRLF.

Implementation of the following PFs and AMMs would avoid, reduce, or minimize impacts to CRLF: PF BIO-3: Wildlife Exclusion Fencing, PF BIO-6: Worker Environmental Awareness Training, PF BIO-8: Avoidance of Entrapment, AMM BIO-2: Pre-construction CRLF surveys, AMM BIO-3: Monitoring Protocols, and AMM BIO-4: Protocol for Species Relocation and Reporting.

Northern Spotted Owl (*Strix occidentalis caurina*): The northern spotted owl (NSO) is listed as threatened both federally and statewide. There are four current NSO activity centers within two miles to the east of the Project corridor. Historically, there were seven positive detections of NSO from 1990 to 2003 within one mile northeast of locations 3, 5, 8, 9, and 15 (CDFW 2024). There are no iNaturalist-reported occurrences of this species within two miles of the BSA (iNaturalist 2023).

No critical habitat for NSO overlaps the BSA. The nearest critical habitat for NSO is approximately 40 miles east of the BSA in Cobb, Lake County.

The proposed FESA Section 7 effects determination is that the project is not likely to adversely affect NSO. The nearest activity centers are far enough away to fall below the NSO auditory "Tolerance Threshold" (USFWS 2020), and there is low potential for NSO to be present nesting or roosting within the BSA due to the lack of appropriate nesting habitat and small sizes of each work location. Clusters of trees near potential nesting habitat will be conserved to the greatest extent practicable, therefore reducing the potential to impact NSO dispersal habitat.

Implementation of the following PFs and AMMs would avoid, reduce, or minimize impacts to NSO: PF BIO-1: Seasonal Avoidance, PF BIO-6: Worker Environmental Awareness Training, PF BIO-7: Pre-construction Nesting Bird Surveys and Nest Avoidance, AMM BIO-5: Auditory or Visual Disturbance.

Marbled Murrelet (*Brachyramphus marmoratus*): The marbled murrelet (MAMU) is listed as federally threatened and state endangered. Critical habitat for the MAMU was designated in 1996 and revised in 2011 (USFWS 2011a). There is no critical habitat for MAMU within the BSA.

There are no MAMU occurrences recorded on CNDDB or iNaturalist within two miles of the BSA (CDFW 2024; iNaturalist 2023). Like NSO habitat (discussed above), suitable nesting habitat for MAMU is present east of the BSA, where there are large contiguous tracts of mixed conifer forest with suitable, large trees for nesting. Trees suitable for nesting generally have a trunk diameter of more than 30 inches. There is also MAMU habitat within the BSA at locations 10, 13, 14, and 15. These locations feature stands of redwood, Douglas fir, and Bishop pine with high canopy cover and potentially suitable nesting platforms. However, MAMU are highly sensitive to anthropogenic disturbance, which likely deters individuals from nesting adjacent to the roadway. Additionally, MAMU often choose to nest near larger waterways that empty into the ocean. None of the locations in the Project corridor contain large perennial waterways.

The proposed FESA Section 7 effects determination is that the proposed Project is not likely to adversely affect MAMU. Removal of vegetation with forest habitat could result in a minor loss of potential habitat for MAMU. However, since all vegetation removal will occur along a highly traveled roadway subjected to regular disturbance, the loss of this potential habitat is not likely to adversely affect MAMU as they primarily avoid nesting in the immediate vicinity of the coast and roadways.

Implementation of the following PFs and AMMs would avoid, reduce, or minimize impacts to MAMU: PF BIO-1: Seasonal Avoidance, PF BIO-6: Worker Environmental Awareness Training, PF BIO-7: Pre-construction Nesting Bird Surveys and Nest Avoidance, AMM BIO-5: Auditory or Visual Disturbance.

Behren's Silverspot Butterfly (*Speyeria zerene behrensii*): The Behren's silverspot butterfly (BSB) is listed as federally endangered. There are three CNDDB occurrences near the Project. There is one occurrence 5.3 miles north of the Project limits, and there are two occurrences within 2.5 miles south of the Project limits.

Suitable habitat for Western dog violet (*Viola adunca*), the larval host plant for BSB, exists within the Project footprint, therefore, it has the potential to occur within the Project footprint. The Project footprint may also contain foraging habitat for adult butterflies.

The proposed FESA Section 7 effects determination is that the proposed Project is not likely to adversely affect BSB. Occurrence of BSB in the Project footprint is not expected but cannot be ruled out with complete certainty at this time. Negative findings of the pre-construction survey for Western dog violet (*Viola adunca*) within the Project footprint would indicate a lack suitable breeding habitat. However, suitable foraging habitat may still be present.

With the implementation of AMM BIO-6: Pre-construction Survey for Western dog violet (*Viola adunca*), the Project is anticipated to avoid direct impacts to BSB in the BSA.

Western Pond Turtle (*Emys marmorata*): The USFWS proposed that the western pond turtle (WPT) be listed as threatened on October 3, 2023 (USFWS 2023). According to the CNDDB database, one WPT was observed within two miles of the BSA in the South Fork Gualala River at an unspecified date (CDFW 2024). Occurrence data from iNaturalist indicates one occurrence that overlaps this CNDDB-reported occurrence from 2018 (iNaturalist 2023).

Within the BSA, the aquatic habitats at the time of the survey were generally too shallow to offer more than marginal habitat for WPT. Additionally, aquatic habitats had no suitable basking sites, such as logs and rocks, which WPT require for thermoregulation. However, ponded areas within drainages were present at location 8, which suggests upstream and downstream areas inaccessible to surveyors may contain more suitable aquatic habitat variables for WPT, when more water is present. Suitable aquatic habitat, including ponds, is present in the vicinity of the BSA to the north and south, and the drainages within the BSA may offer aquatic habitat corridors for WPT dispersing from the east and moving west.

This proposed FESA Section 7 effects determination is that the Project is not likely to adversely affect WPT. The potential presence of WPT cannot be ruled out completely since suitable aquatic and upland habitat are present within the vicinity of the BSA. However, WPT are not expected to be found within the Project footprint due to the marginal habitat present.

Implementation of the following PFs and AMM would avoid, reduce, or minimize impacts to WPT: PF BIO-3: Wildlife Exclusion Fencing, PF BIO-6: Worker Environmental Awareness Training, PF BIO-8: Avoidance of Entrapment, and AMM BIO-**7:** Pre-construction WPT Surveys.

Foothill Yellow-Legged Frog (*Rana boylii*): Foothill yellow-legged frog (FYLF) is listed as a California SSC. Five CNDDB records of FYLF were identified within two miles of the BSA, of which four are presumed extant. All occurrences are within the South Fork Gualala River, east of the BSA. The nearest records include occurrences within one mile northeast of location 3 (PM 51.75), where one adult was observed at an unidentified date in the 2000s (CDFW 2024).

Within the BSA, there is no suitable breeding habitat for FYLF; the BSA lacks creeks with wide channels with fast flows, riffles, and cobbled channel substrate. However, during periods of high flow in the aquatic portions of the BSA, FYLF may be able to use these channels for dispersal. Although FYLF have been documented to travel multiple miles between breeding habitats, due to the lack of breeding habitat west of the BSA, the likelihood FYLF would travel overland through the BSA is low.

Based on the survey results, the Project is not anticipated to have any direct or indirect impacts on FYLF. Given the lack of breeding habitat, marginal habitat onsite, and that construction will occur during the dry season, FYLF are not expected to be encountered within the BSA.

Implementation the PFs and AMMs described previously for CRLF would avoid, reduce, or minimize impacts to FYLF: PF BIO-3: Wildlife Exclusion Fencing, PF BIO-6: Worker Environmental Awareness Training, PF BIO-8: Avoidance of Entrapment, AMM BIO-2: Pre-construction CRLF surveys, AMM BIO-3: Monitoring Protocols, and AMM BIO-4: Protocol for Species Relocation and Reporting.

Pallid Bat, Western Red Bat, and Townsend's Big-eared Bat: The Townsend's big-eared bat, pallid bat, and western red bat are listed as a California SSC (CDFW 2023). Within two miles of the BSA, there are no CNDDB- or iNaturalist-recorded occurrences of any of the three bat species.

Anthropogenic structures suitable for pallid and Townsend's big eared bats are absent from the vicinity of the BSA. For these two species, the only potentially suitable roosting habitats in the vicinity of the BSA are hollows in large diameter trees. This

potential habitat was not observed within the BSA; however, dense understory at locations 10, 13, 14, and 15 within the BSA often obscured the surveyors' view east of the BSA, where these habitats may be present. Overall, there is a very low potential of pallid and Townsend's big-eared bat roosting within the BSA, but the ample riparian, grassland, and forest edge habitat present within the BSA may provide suitable foraging habitat for pallid and Townsend's big-eared bats.

Dense riparian habitat is present within the BSA at most culvert locations. This riparian habitat is often composed of willows, a preferred roosting substrate for western red bats. Locations 1, 3, 5, 6, 10, 13, and 15 contain the most suitable riparian roosting habitat for western red bat and may also provide suitable foraging habitats for all three bat species. Riparian areas along larger freshwater systems to the east, such as the South Fork Gualala River, likely offer more suitable roosting habitat for western red bat due to their larger size and assumed larger prey base of insects.

Potential Project impacts include temporary loss of foraging habitat and temporary or permanent loss of potential roosting habitat as a result of tree removal activities. In addition, construction related noise and visual disturbance could impact potential roosting. Direct impacts as a result of tree removal may occur where access is needed to the culvert locations. While conditions within the BSA are generally unsuitable or provide only marginally suitable habitat for special-status bat species, there is some potential for individuals to roost onsite.

Implementation of the following PF and AMM is anticipated to avoid direct impacts to bats in the BSA: PF BIO-6: Worker Environmental Awareness Training and AMM BIO-8: Pre-construction Surveys for Roosting Bats.

Migratory Birds and Raptors: Vegetation characterization within the BSA indicates suitable foraging and potential nesting habitats exist within the BSA. Pre-construction surveys

Potential Project impacts include temporary impacts to foraging habitat and temporary or permanent loss of potential nesting habitat as a result of tree removal activities. In addition, noise and visual disturbance could impact potential nesting birds through nest failure or abandonment.

Implementation of the following PFs and AMMs would avoid, reduce, or minimize impacts to migratory birds and raptors: PF BIO-1: Seasonal Avoidance, PF BIO-6: Worker Environmental Awareness Training, PF BIO-7: Pre-construction Nesting

Bird Surveys and Nest Avoidance, PF BIO-9: Vegetation Removal, AMM BIO-1: Tree Removal Window, and AMM BIO- 5: Auditory or Visual Disturbance.

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) Less than Significant Impact with Mitigation Incorporated

Sensitive Natural Communities

Section 30107.5 of the California Coastal Act (CCA) defines environmentally sensitive natural communities as "any land in which plant or animal life or their habitats are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." 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.

CDFW jurisdictional riparian habitat delineated within the BSA was based on the position of riparian tree canopies and/or surrounding habitat relative to the bed and the bank of channelized waters and the assessment of shade, material contributions to the channel, and continuous canopy. The majority of CDFW jurisdictional riparian habitat delineated is also California Coastal Commission (CCC) jurisdiction as an ESHA. Permanent and temporary impacts to ESHA will be quantified for the Final IS/MND and further refined during the next phase of the Project when applications for permits will be submitted to the agencies. A total of 0.90 acre of CDFW and CCC jurisdictional riparian habitat was delineated at 13 locations within the BSA (Figure 3-2 in Appendix A). Table 3-1 contains the regulated habitat quantities at each culvert rehabilitation location and the combined permanent and temporary impacts will not exceed these quantities.

Impacts to riparian habitat would result from clearing for culvert replacement, access for equipment and staging, and from grading roadside drainage ditches. All impacted riparian habitat areas would be recontoured to match the replaced culverts and impacted areas would be revegetated following the completion of Project construction activities.

Caltrans has minimized Project-related impacts to the greatest extent feasible and will implement the following PFs to avoid and minimize potential effects to ESHAs: PF BIO-2: Environmentally Sensitive Area Fencing, PF BIO-6: Worker Environmental Awareness Training, PF BIO-10: Replant, Reseed, and Restore Disturbed Areas, and PF BIO-11: Reduce Spread of Invasive Species.

Compensatory mitigation for the removal of riparian habitat will be required and further evaluated in the design phase and during agency consultation. Vegetation restoration requirements for impacts to riparian vegetation and associated replanting ratios will be determined in coordination with state and federal agencies.

Table 3-1. Regulated Habitats within the Biological Study Area

Location	Postmile	CDFW Riparian (Acre in BSA)	CWA Wetlands (Acre in BSA)	CWA Other Waters (Acre in BSA)	Culverted Water (Linear Ft. in BSA)
1	51.18	0.071	0.004	0.01	44
2	51.35	0	0.008	0.002	40
3	51.75	0.061	0.024	0.001	55
4	52.21	0.046	0	0.003	63
5	52.83	0.036	0.018	0.007	45
6	53.13	0.059	0.002	0.003	75
7	53.24	0.011	0.002	0.001	66
8	53.76	0.077	0.01	0.003	39
9	53.96	0.094	0.008	0.009	90
10	54.30	0.098	0.002	0.008	53
11	54.41	0	0.015	0.002	72
12	54.91	0.045	0.008	0.006	54
13	55.14	0.106	0	0.008	94
14	55.36	0.113	0	0.013	54
15	56.37	0.089	0.005	0.007	67

The information in this table represents the maximum combined temporary and permanent impacts at each location to each type of resource protected under various regulations (USACE 404, RWQCB 401, CDFW 1600, and CCC ESHA). Coastal ESHA encompasses all of these habitats, but since these resource areas protected under various regulations overlap (i.e., riparian often includes other waters and/or wetlands), the sum totals in the table above does not equal the potential ESHA impacts. Mitigation for both temporary and permanent impacts will be proposed for each regulated area described above. Compensatory mitigation will likely consist of both onsite restoration and enhancement as well as offsite restoration, enhancement, or protection. Both the temporary and permanent impacts for each resource type and agency jurisdictional area as well as detail surrounding proposed mitigation will be included in the final environmental document for this Project. This Project had several limitations that influenced the ability to include detailed estimates of temporary and permanent impacts at this time.

c) Less than Significant Impact with Mitigation Incorporated

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.

An aquatic resource delineation was conducted in May 2024. All of the delineated wetlands will likely be jurisdictional to CCC as an ESHA and both temporary and permanent impacts to ESHA shall be identified in the final environmental document and then further updated and refined in the next phase of the Project. The BSA contained approximately 0.198 acre of potential waters of the U.S. and State and 928 linear feet of culverted waters of the US and State. See Table 3-1 for resource acreages for each culvert location.

Permanent impacts to potential jurisdictional waters may result at locations where a FES, drainage inlet, or headwall for the culvert is proposed (Table 2-1). Dimensions of these features and impact acreages will be available in the design phase. Table 3-1 contains the regulated habitat quantities at each culvert rehabilitation location and the combined permanent and temporary impacts will not exceed these quantities.

The following PFs will be implemented to avoid and minimize impacts on any protected wetlands in the project footprint: PF BIO-2: Environmentally Sensitive Area Fencing, PF BIO-6: Worker Environmental Awareness Training, PF BIO-10: Replant, Reseed, and Restore Disturbed Areas, and PF BIO-11: Reduce Spread of Invasive Species.

Caltrans anticipates compensatory mitigation for impacts to jurisdictional wetlands and waters, and the required mitigation will be determined during the design phase in consultation with agencies including USACE, CCC, CDFW, and the Regional Water Quality Control Board (RWQCB). Caltrans will be obtaining a National CWA Section 401 certification from the RWQCB, a Section 404 permit from USACE, a 1600 permit from CDFW, and a CDP from either the CCC or Sonoma County LCP.

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. 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 PFs into the Project to reduce potential impacts to sensitive biological resources. The following PFs will be implemented:

PF BIO-1: Seasonal Avoidance. Construction, below top of bank, will be constrained to the dry season (June 1 – October 31). Caltrans will complete tree removal activities outside bird nesting season (February 1 - September 30).

PF BIO-2: Environmentally Sensitive Area Fencing. Before starting construction, environmentally sensitive areas (ESAs), defined as areas containing sensitive habitats

adjacent to or within construction work areas for which physical disturbance is not allowed, will be clearly delineated using high-visibility orange fencing. The ESA fencing will remain in place throughout the Project duration and will prevent construction equipment or personnel from entering sensitive habitat areas. The ESA fencing also serves to delineate the Project footprint in which all construction activity is to occur. The final Project plans will depict the locations where ESA fencing will be installed and how it will be assembled/constructed.

PF BIO-3: Wildlife Exclusion Fencing. Before the start of construction, wildlife exclusion fencing (WEF) will be installed along the Project footprint perimeter in areas where specific wildlife could enter the Project site. The final Project plans will depict the locations where WEF will be installed and how it will be assembled/constructed. The location of the WEF will be determined in coordination with USFWS. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place throughout the Project duration while construction activities are ongoing and will be regularly inspected for stranded animals and fully maintained. The WEF will be removed following completion of construction activities.

PF BIO-4: Stormwater Best Management Practices. In accordance with RWQCB requirements, a Stormwater Pollution Prevention Plan will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:

- Prohibiting discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.

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

- Collecting and disposing of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.

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

- Using water trucks and dust palliatives to control dust in unvegetated areas and covering of temporary stockpiles when weather conditions require. Protecting graded and designated staging areas from erosion using an appropriate combination of approved erosion control items or methods, in accordance with the Stormwater Pollution Prevention Plan, as indicated in the RWQCB permit, and as stated in the contract plans and special provisions.

- Establishing permanent erosion control measures such as bio-filtration strips and swales to receive stormwater discharges from the highway or other impervious surfaces to the maximum extent practicable.

PF BIO-5: Construction-site Management Practices. The following site restrictions will be implemented to avoid or minimize potential impacts on listed species and their habitats:

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

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

- Certifying, to the maximum extent practicable, borrow material is 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 pets from entering the Project footprint during construction.

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

- Maintaining equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents and developing a Spill Response Plan. Hazardous materials such

as fuels, oils, solvents, and similar will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.

PF BIO-6: Worker Environmental Awareness Training. Prior to ground-disturbing activities, an agency-approved biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description of special-status species, migratory birds, and their habitats, how the species might be encountered within the Project area, an explanation of the status of these species and protection under the federal and state regulations, the measures to be implemented to conserve listed species and their habitats as they relate to the work site, boundaries within which construction may occur, and how to best avoid the incidental take of listed species. The field meeting will include topics on species identification, life-history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of Project maps showing areas where AMMs are to be implemented. The program will include an explanation of applicable federal and state laws protecting listed species, as well as the importance of compliance with Caltrans and various resource agency conditions.

PF BIO-7: Pre-construction Nesting Bird Surveys and Nest Avoidance. During the nesting season (February 1 - September 30), pre-construction surveys for nesting birds will be conducted by a qualified biologist no more than 72 hours prior to the start of construction activities. If work is to occur within 300 feet of active raptor nests or 50 feet of active non-game bird nests, a non-disturbance buffer will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. To minimize and avoid take of migratory birds, their nests, and their young, Caltrans will conduct vegetation and tree trimming outside of the bird nesting season, prior to construction. This work will be limited to vegetation and trees that are within the Project footprint. Additional bird nesting surveys will be required if work must occur during the nesting season.

PF BIO-8: Avoidance of Entrapment. To prevent inadvertent entrapment of animals during construction, excavated, steep-walled holes or trenches more than one foot deep will be covered at the close of each working day using plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the

Project area overnight will be inspected before they are subsequently moved, capped, and/or buried.

PF BIO-9: Vegetation Removal. Vegetation that is within the cut and fill line or growing in locations where permanent structures will be placed will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes and excavators. If clearing and grubbing occurs between February 1 and September 30, the biological monitor will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for passerines/migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance requirements of the Migratory Bird Treaty Act and California Fish and Game Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be chipped and left onsite if appropriate or removed from the Project footprint if it could be used as nesting habitat.

PF BIO-10: Replant, Reseed, and Restore Disturbed Areas. Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted, based on the local species composition.

PF BIO-11: Reduce Spread of Invasive Species. To reduce the spread of invasive, non-native plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing 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.

Avoidance and Minimization Measures

In addition to implementation of standard Caltrans construction measures, species-specific AMMs are provided for sensitive resources. The measures will be communicated to the contractor using special provisions included in the contract bid solicitation package. Caltrans would incorporate the following AMMs into the Project to offset or avoid potential impacts to biological resources.

AMM BIO-1: Tree Removal Window. The trees that will be removed would be cut down to the stumps and removed between October 1 and January 31, the season prior to construction, to avoid bird nesting season. If trees are to be removed during bird nesting season, the biologist will survey for active nests, in accordance with permit conditions, prior to removal.

AMM BIO-2: Pre-construction CRLF Surveys. Pre-construction surveys for CRLF will be conducted by a USFWS-approved biologist no more than 14 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. Suitable non-breeding aquatic and upland habitat within the Project footprint, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows, will be inspected. If CRLF is observed, the individual will be evaluated and relocated by the biological monitor in accordance with the observation and handling protocol outlined in the Biological Opinion.

AMM BIO-3: Monitoring Protocols. During construction in and near potential CRLF habitat, the following protocols will be implemented during construction activities:

- Within 24 hours prior to initial ground-disturbing activities, portions of the work area where potential CRLF habitat has been identified will be surveyed by a Project biologist(s) to clear the site of frogs 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 CRLF to monitor the removal of the top 12 inches of topsoil.

- 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.

AMM BIO-4: Protocol for Species Relocation and Reporting. If CRLF are encountered in the immediate work area the following procedures will be followed:

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

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

- The biological monitor(s) will take precautions to prevent introduction of amphibian diseases in accordance with the Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (USFWS 2005).

AMM BIO- 5: Auditory or Visual 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 the suitable NSO nesting and roosting habitat between October 31 and August 1. In addition, no human activities will occur within a visual line-of-sight of 131 feet or less from any known nest locations within the action area. These above-ambient sound level restrictions will be lifted after July 31, after which the above-ambient sound levels are considered as having “no effect” on nesting NSO and dependent young.

AMM BIO-6: Pre-construction Survey for Western dog violet (*Viola adunca*). A pre-construction survey for Western dog violet (*Viola adunca*) will be conducted in the early spring, prior to construction, referencing phenology trends observed at nearby reference populations. If Western dog violet (*Viola adunca*) are found in the work area, they will be flagged for avoidance. Negative findings for Western dog violet (*Viola adunca*) within the action area will indicate that the footprint does not contain suitable breeding habitat for BSB.

AMM BIO-7: Pre-construction WPT Surveys. Pre-construction surveys for WPT will be conducted by a USFWS-approved biologist no more than 14 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. If a WPT is encountered, construction will be halted and USFWS will be contacted to determine how to proceed.

AMM BIO-8: Pre-construction Surveys for Roosting Bats. An approved biologist shall conduct a habitat assessment for potentially suitable bat roosting habitat, including inside culverts and surrounding anthropogenic structures capable of providing suitable roosting habitat and within trees from March 1 to April 1 or August 31 to October 15 prior to construction activities. If the habitat assessment reveals any structure is suitable roosting habitat for bats, then the appropriate exclusionary measures will be implemented prior to construction during the period between March 1 to April 15 or August 31 to October 15. Potential avoidance may include exclusionary blocking or filling potential cavities with foam, visual monitoring, and staging Project work to avoid bats. If bats are known to use the structure, exclusion netting shall not be used.

If the habitat assessment reveals suitable bat habitat in trees and tree trimming or removal is scheduled from April 16 through August 30 and/or October 16 through February 28, then presence/absence surveys shall be conducted two to three days prior to any tree removal or trimming. If presence/absence surveys are negative, then tree trimming or removal may be conducted by following a two phased system. If presence/absence surveys indicate bat occupancy, then the occupied trees shall only be trimmed or removed from March 1 through April 15 and/or August 31 through October 15 by following the two-phased system.

The two-phase system shall be conducted over two consecutive days. On the first day, (in the afternoon) limbs and branches are removed by a tree cutter using

chainsaws or other hand tools. Limbs with cavities, crevices, or deep bark fissures are avoided and only branches or limbs without those features are removed. On the second day, the entire tree shall be removed.

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?	Less than Significant Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

Caltrans prepared a memorandum on cultural compliance for the Project titled *Office of Cultural Resource Studies (OCRS) Section 106 Closeout Memo for the Sonoma 1 Drainage System Replacement Project at Postmile 51.1-56.4, on State Route 1, in Sonoma County* (Caltrans 2024c). This section summarizes the findings of this memorandum. No further archaeology or architectural history studies are required.

Caltrans contacted the Native American Heritage Commission (NAHC) on June 13, 2023, 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 NAHC responded on August 31, 2023 with positive results. Per CEQA Public Resource Code section 21084.3 (a), 21084.3 (c) 21080.3.1 (c), 21080.3.1 (d) (AB 52) and the National Historic Preservation Act (NHPA) Section 106 36 CFR § 800.2(c)(2)(ii), and using the NAHC contact list, letters regarding the proposed project were electronically sent via email on December 6 and 7, 2023. The Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Kashia Pomo) were contacted earlier on October 6, 2023.

At time of writing, representatives from the Lytton Rancheria, the Federated Indians of Graton Rancheria, and the Dry Creek Rancheria of Pomo Indians have responded stating that they have no further interest in the project. The Kashia Pomo responded with a request for a Tribal monitor to accompany any field visits and requested cultural reports prepared for the project. A representative from the Kashia Pomo accompanied the field team on November 22, 29, and 30, 2023.

A Finding of No Adverse Effect with Standard Conditions – ESA is appropriate for this undertaking pursuant to Stipulation X.B.1.a of the PA. Caltrans Cultural Studies Office approved this finding on May 14, 2024. An Historic Property Survey Report

and ESA Action Plan were completed. If Project plans change, further studies may be necessary.

a b, c) Less that Significant Impact

Based on literature review, database searches, and outreach to local Native American organizations, Caltrans has determined that a Finding of No Adverse Effect with Standard Conditions is appropriate for the Project. Implementation of PFs CULT-1 and CULT-2 would reduce potential impacts to undiscovered cultural resources.

Project Features

Caltrans would incorporate its standard measures into the Project to avoid potential impacts to cultural resources. These Project features are listed below and summarized in Appendix B.

PF 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.

PF 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 2023a) was completed on December 7, 2023 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 2021 Construction Emissions Tool, version 1.0.2, 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 9,654 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. During construction, BMPs, as described under PF 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 culverts, hence conserving the culverts 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.

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 for the Project to offset or avoid potential impacts to energy. This feature is described here and summarized in Appendix B.

PF 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; 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 2023b) 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 culverts are located within existing fill material.

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

The Project would not expose the public to hazards related to the rupture of a known earthquake fault, strong ground shaking, including liquefaction, soil subsidence, expansive soils or seismically induced landslides. There are no septic tanks or

alternative wastewater delivery systems proposed in the scope of the Project or within the Project area. The Project will not impact geologic or soil conditions.

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 2023c) was completed for the Project. This section summarizes the findings of this review.

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

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. Carbon dioxide (CO_2) is the single most important GHG pollutant due to its abundance when compared with other vehicle-emitted GHGs, including methane, nitrous oxide, hydrofluorocarbons, and black carbon.

Based on Project information available for environmental studies, the construction-related GHG emissions were calculated using the 2021 Caltrans Construction Emissions Tool, version 1.0.2. It was estimated that for the total construction duration, the total amount of CO_2 produced due to construction would be 138 tons. Frequency and occurrence of GHG emissions would be reduced through PF GHG-1, described in the following subsection. The impact would be less than significant.

b) <u>No Impact</u>

The proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. There would be no impact.

Project Feature

Caltrans would incorporate standard measures for the Project to offset or avoid potential impacts to greenhouse gases. This feature is described here and summarized in Appendix B.

PF 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. 2024). 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 approximately two 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, 3.3.17) 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 *Hydrology Study* memorandum (Caltrans 2023d) and a *Water Quality Study* (Caltrans 2023e) for the project. This section summarizes the findings of those reviews.

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

The receiving waterbody of this Project is the Frontal Pacific Ocean, which is not on the 303(d) list of impaired waterbodies.

a) Less than Significant Impact

The Project would result in less than 1.0 acre of disturbed soil area; therefore, the construction activities are not subject to the Construction General Permit. A Water Pollution Control Plan will be prepared and approved prior to construction, pursuant to standard specification 13-2.

Potential temporary construction impacts to existing water quality could result from unintended discharge beyond the perimeter of the construction site, which could cause change in pH and turbidity of receiving water bodies. Given the scope of the Project, the following construction activities are anticipated sources for potential impacts: excavation and stockpiling of materials (earthwork and vegetation removal), transport and storage of materials and equipment, concrete operations and associated waste management, and general equipment movement and access within and to/from the sites.

Implementation of construction BMPs (PF WQ-1) would be deployed for sediment control and material management. These BMPs would prevent or reduce temporary water quality impacts from the construction activities of the Project. Additionally, temporary creek diversion will be required to facilitate construction activities (PF WQ-2).

The proposed Project would not substantially degrade surface or groundwater quality. The Project would not violate water quality standards or waste discharge requirements. Impacts 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

The Project corridor is not within the 100-year floodplain as defined by the Federal Emergency Management Agency Flood Hazard Mapping. The Project is not in flood hazard, 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 PFs into the Project to offset or avoid potential impacts to water quality. PF WQ-1 and PF WQ-2 are listed here and summarized in Appendix B.

PF WQ-1: Construction Site BMPs. To prevent or reduce water quality impacts to the Project corridor, BMPs will be deployed for sediment control, pH, and material management. BMPs will include, but are not limited to: job site management, wind erosion control, concrete waste management, and non-stormwater management.

PF WQ-2: Temporary Stream Diversions. Temporary stream diversions will be used when necessary for culvert replacements. If needed, stream diversion will be determined during the design phase of the Project.

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 various vista points. Land use in the Project vicinity includes residential and timberland. Very low-density residential development and recreational and visitor-serving uses are allowed within this zone.

a) No Impact

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.

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.

If the Project is within the permitting jurisdiction of Sonoma County, it would require a local CDP 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 are provided in Table 3-2, and the key provisions of the Sonoma County LCP are 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. 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.

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30231	Biological activity; water quality	Biological and water quality resources would be temporarily affected by construction of the proposed Project; however, all impacts would be minimized, and habitat conditions are expected to return to pre-construction conditions within 1-3 years following restoration activities. PFs 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 up-sizing pipes that convey water from creeks and natural runoff, the Project would reduce erosion and sedimentation of downstream waters and the Pacific Ocean.
Section 30240	Environmentally Sensitive Habitat Areas (ESHAs)	Temporary direct impacts to ESHAs, in the form of coastal aquatic resources, would result from culvert replacement, temporary stream diversion system, and may also result from stormwater treatment areas. AMMs and PFs would reduce these impacts.
Section 30241-30242	Agricultural land	Although coastal agricultural land is present within the Project limits, no property is currently being used as agriculture lands, 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 CDPs, include a finding that the development is in conformity with public access and public recreation policies.	The Project would conform with public access and public recreational policies.
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.

Policy Number	Subject of Policy	Coastal Zone Assessment
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 PFs and AMMs. The Project would minimize impacts to ESHAs in the form of coastal wetlands, through onsite restoration.
Agriculture	Although coastal agricultural land is present within the Project limits, no property is currently being used as agriculture lands, thus the Project would not affect 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 CDP 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 resources.
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?	Less than Significant 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

The project does not qualify as either a Type I or Type II project under 23 CFR 772. Noise abatement need not to be considered and a traffic noise study is not required. However, there are noise-sensitive receptors, such as residential houses, located in proximity to areas where construction activities may take place. Therefore, a *Construction Noise Analysis* memorandum (Caltrans 2023f) was prepared for this Project.

a) Less than Significant 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.

b, c) No Impact

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. The AMMs are listed here and summarized in Appendix B.

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 the Project site from 9:00 p.m. to 6:00 a.m., per 2023 Caltrans Standard Specifications, Section 14-8.02.

AMM Noise-2: Public Outreach. Public outreach shall be required throughout the project to update residents, businesses and others with upcoming activities and time frame of project.

AMM Noise-3: Noise Levels During Construction. The following measures will be implemented during construction to reduce noise:

- Any operation exceeding 86 dBA shall not be allowed at nighttime from 9:00 p.m. to 6 a.m.
- Schedule noisy operations within the same time frame. The total noise level will not be significantly greater than the level produced if operations are performed separately.
- Avoid unnecessary idling of internal combustion engines within 100 feet of sensitive receptors.
- 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.
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Utilize “quiet” air compressors and other “quiet” equipment where such technology exists.
- No construction equipment will be delivered and dropped off before 6:00 a.m.
- Maintain all internal combustion engine properly to minimize noise generation.

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

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.

Traffic delays could result from the need for one lane closure during construction. A TMP would be prepared in the next phase of the project 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

a, b) 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.

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 one lane 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 and 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, b, c) 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.

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.

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

Caltrans would incorporate a standard measure for the Project to offset or avoid potential impacts to transportation. AMM Trans-1 is listed here and summarized in Appendix B.

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 memorandum on cultural compliance for the Project titled *Office of Cultural Resource Studies (OCRS) Section 106 Closeout Memo for the Sonoma 1 Drainage System Replacement Project at Postmile 51.1-56.4, on State Route 1, in Sonoma County* (Caltrans 2024c). 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 NAPH, as well as the individual 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. The Section 106 memo (Caltrans 2024c) was 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.

PFs CULT-1 and CULT-2, discussed under Cultural Resources (section 3.3.5), 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?	Less than Significant Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

CEQA Significance Determinations for Utilities and Service Systems

Verification of utilities would be required. The need for potholing will be ascertained.

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 PF UTI-1 would require the proper disposal of construction trash. There would be no impact.

Project Feature

Caltrans would incorporate its standard measures into the Project to offset or avoid potential impacts to utilities and service systems. PF UTI-1 is listed here and summarized in Appendix B.

PF 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.

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 Area for wildfire prevention and suppression, within a high fire hazard severity zone and two miles south of a very high fire hazard severity zone (CalFire 2024).

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 proposes to replace existing culverts on SR 1, and therefore would not have occupants nor would it require the installation of associated infrastructure that would exacerbate fire risk. To minimize run-off during and after construction, the Project will implement PFs WQ-1 and WQ-2 (Hydrology and Water Quality section,

3.3.10), therefore the Project will not expose people to significant risks including downslope or downstream flooding or landslides 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 with Mitigation Incorporated
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Less than Significant Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE

a) Less than Significant Impact with Mitigation Incorporated

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 both permanent and temporary construction-related impacts; however, with the implementation of the PFs and AMMs, as summarized in Appendix B, along with proposed compensatory mitigation for impacts to wetland and riparian resources, the Project impacts would be reduced to less than significant levels.

Caltrans anticipates compensatory mitigation for impacts to riparian habitat and jurisdictional wetlands and waters, and the required mitigation will be determined during the design phase in consultation with agencies including USACE, CCC, CDFW, and the RWQCB. Caltrans will be obtaining a National CWA Section 401 certification from the RWQCB, a Section 404 permit from USACE, a 1600 Lake and Streambed Alteration Agreement from CDFW, and a CDP from either the CCC or Sonoma County LCP.

Compensatory mitigation will likely consist of both onsite restoration and enhancement as well as offsite restoration, enhancement, or protection. Both the temporary and permanent impacts for each resource type and agency jurisdictional area as well as detail surrounding proposed mitigation will be included in the final environmental document for this Project.

b) Less than Significant Impact

The Project involves the restoration of existing infrastructure on SR 1. Current and future SHOPP projects, located on SR 1 in the Project vicinity, include additional culvert rehabilitation projects.

The Project would not 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/MND identifies potential temporary construction-related impacts and potential permanent impacts as a result of drainage system upgrades. For biological resources, no cumulative impacts are anticipated due to the implementation of the PFs and AMMs. These impacts are not anticipated to be 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. This Project would not contribute to substantial cumulative environmental impacts; and Project-related impacts to resources would be reduced with the proper implementation of PFs 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 may occur. Daytime work would occur with the potential to impact vehicles travelling through the Project area; however, implementation of PFs and AMMs would address any potential 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 Coast Community Branch of Mendocino County Library at 225 Main Street in Point Arena, the United States Post Office at 60 Sea Walk Dr. in Sea Ranch, and the Guerneville Regional Library at 14107 Armstrong Woods Road in Guerneville. The deadline for submission of comments on the IS/MND is August 10, 2024.

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	June 13, 2023	Caltrans requested a search of Sacred Lands File for a separate project (EA 04-4Q800).
Native American Heritage Commission	August 31, 2023	The NAHC responded with positive results for the Sacred Lands File search and included a list of representatives from Native American Tribes that may have specific interest in the region.
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
United States Fish and Wildlife Service	February 20, 2024	Caltrans Biologist requested technical assistance from USFWS. A short description of the Project and the USFWS species list were provided.

Organizations	Date	Topic
United States Fish and Wildlife Service	February 22, 2024	Caltrans Biologist and USFWS discussed intended determinations for the Biological Assessment. USFWS agreed with formal consultation for CRLF and informal consultation for NSO, MAMU, BSB, and WPT. USFWS recommended including WPT in the Biological Assessment in the case that the listing status of WPT changes during the Project and a conference opinion is needed.

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
Hrishikesh Katti	Project Management
Nhi Luong	Project Management
Jinhee Ha	Landscape Associate
Alex McDonald	Branch Chief, Office of Landscape Architecture
Abaid Rehman	Air Quality and Noise Specialist
Va Lee	Air Quality and Noise Specialist
Shilpa Mareddy	Branch Chief, Air Quality and Noise
Celine Tang	Biologist, Biological Sciences and Permits
Robert Blizard	Branch Chief, Office of Biological Sciences and Permits
Charles Palmer	Architectural Historian, Office of Cultural Resource Studies
Daniel Jackson	Environmental Scientist, Archaeology, Office of Cultural Resources
Helen Blackmore	Branch Chief, Architectural History
Kathryn Rose	Branch Chief, Archaeology
Chris McMahon	Engineering Geologist
Chris Risden	Branch Chief, Geology Services Branch B
Chris Wilson	Branch Chief, Office of Environmental Engineering
Nghia Nguyen	Office of Hydraulic Engineering
Kathleen Reilly	Branch Chief, Office of Hydraulic Engineering
Demeke Tsige	Water Quality Specialist
Mojgan Oosoli	Branch Chief, Stormwater Design
Maverick Ganitano	Transportation Engineer, Design
Rinkal Sheth	Senior Transportation Engineer, Design
Katherine Neylan	Planner, Office of Environmental Analysis
Christopher Pincetich	Acting Branch Chief, Office of Environmental Analysis
Lawrence Bonner	Office Chief, Office of Environmental Analysis

Chapter 6 Distribution List

The Draft IS with proposed MND will be circulated by July 11, 2024, 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

Sonoma County Local Coastal Program

California Coastal Commission

Elected Officials

Senator Laphonza Butler

Senator Alex Padilla

Senator Mike McGuire

Congressman Jared Huffman

Assembly Member Jim Wood

Supervisor Lynda Hopkins, Sonoma County District 5

Sonoma County Sheriff Eddie Engram

Appendix A Figures

Legend

Project Footprint

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Miles

Caltrans

FIGURE 1-1
Project Location and Regional Vicinity
Sonoma State Route 1
Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California

\\DC1VS01\GISPROJ\C\CALTRANS\0W740_SON_1_CULVERTS\MAPFILES\REPORT\2024\NES\05_MAY\FIG1_PROJECT_LOCATION_0W740.MXD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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PROJECT NUMBER & PHASE

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04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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USERNAME =>
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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LAYOUT

SCALE: 1" = 50'

L-5

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

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LAYOUT

SCALE: 1" = 50'

L-6

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LAST REVISION | DATE PLOTTED => 4/12/2024 TIME PLOTTED => 9:53:11 AM

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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Exp.
CIVIL
STATE OF CALIFORNIA

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LAYOUT

SCALE: 1" = 50'

L-7

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LAST REVISION

DATE PLOTTED => 4/12/2024
TIME PLOTTED => 9:54:33 AM

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA

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LAYOUT

SCALE: 1" = 50'

L-8

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TIME PLOTTED => 12:43:39 PM

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

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LAYOUT

SCALE: 1" = 50'

L-9

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TIME PLOTTED => 11:27:27 AM

BORDER LAST REVISED 8/5/2020 | USERNAME => | DGN FILE => ...\Plans\DGN\0W740_ea009.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT | PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
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LAYOUT

SCALE: 1" = 50'

L-10

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REVISED BY	DATE REVISED

LAST REVISION

DATE PLOTTED => 4/12/2024
TIME PLOTTED => 9:47:01 AM

BORDER LAST REVISED 8/5/2020

USERNAME =>
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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	1	51.1/56.4		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No.
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CIVIL
STATE OF CALIFORNIA

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LAYOUT

SCALE: 1" = 50'

L-11

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LAST REVISION

DATE PLOTTED => 4/12/2024
TIME PLOTTED => 9:55:29 AM

BORDER LAST REVISED 8/5/2020

USERNAME =>
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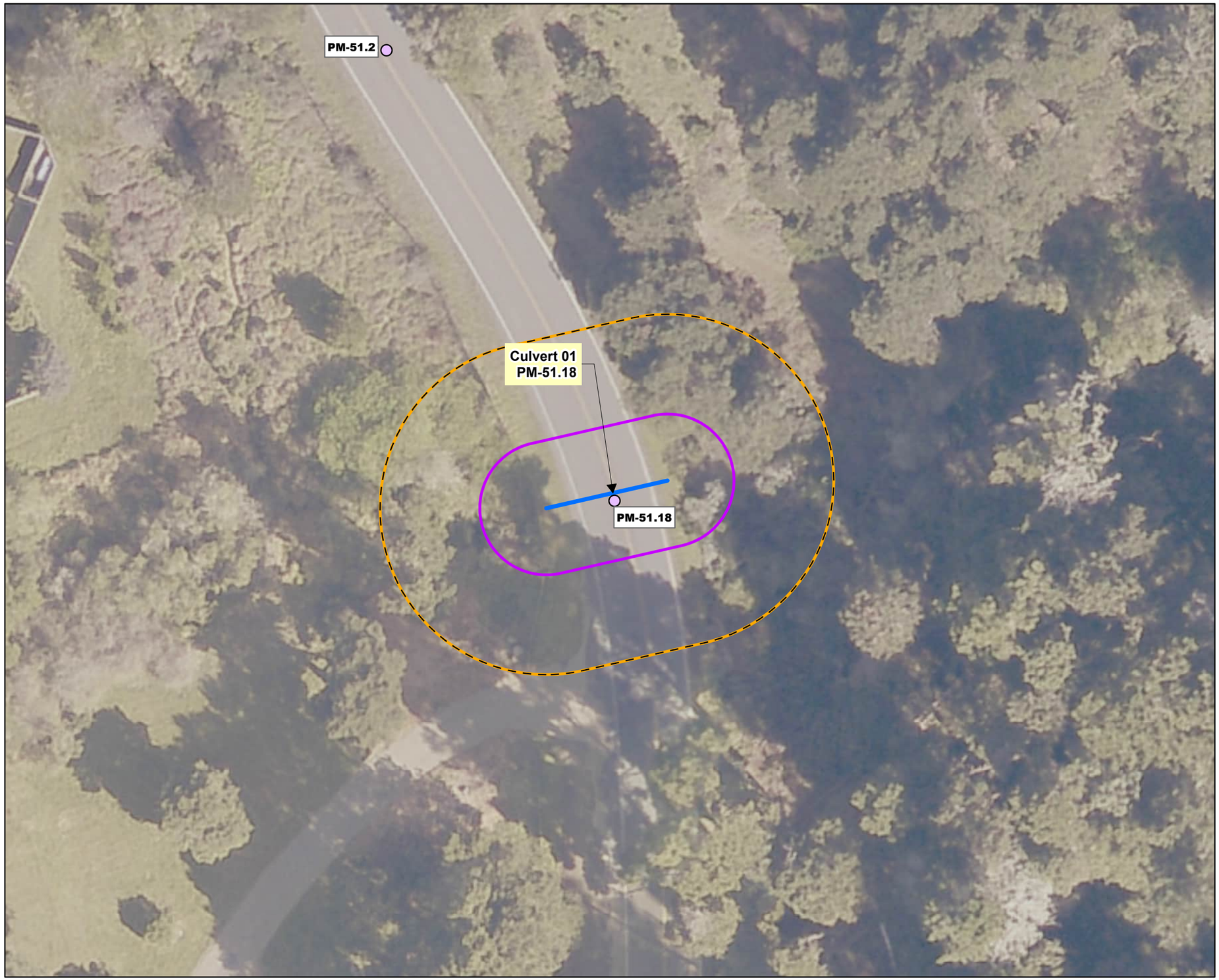
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT

PROJECT NUMBER & PHASE



LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 01 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 02 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 03 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 04 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

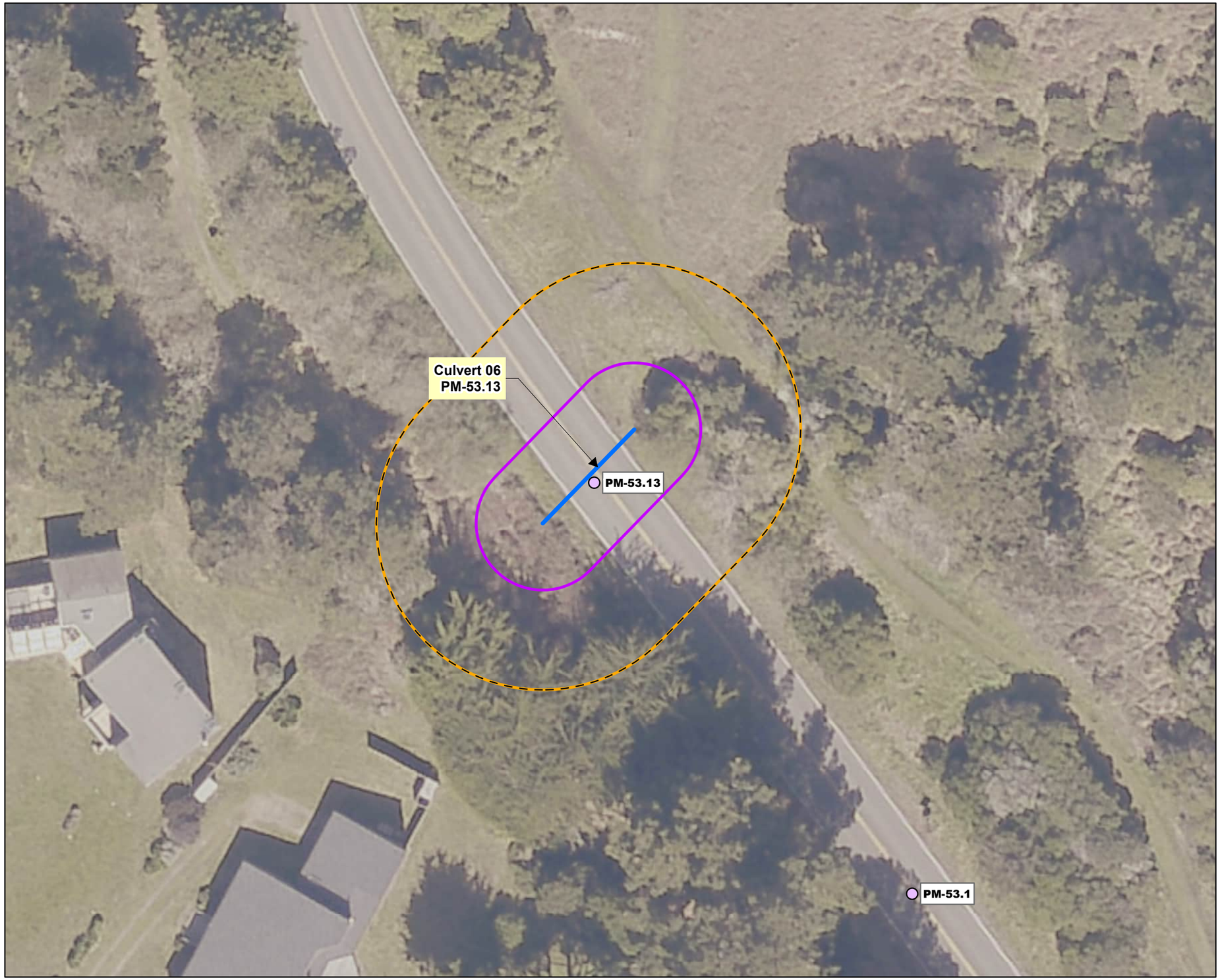
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 05 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California



LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

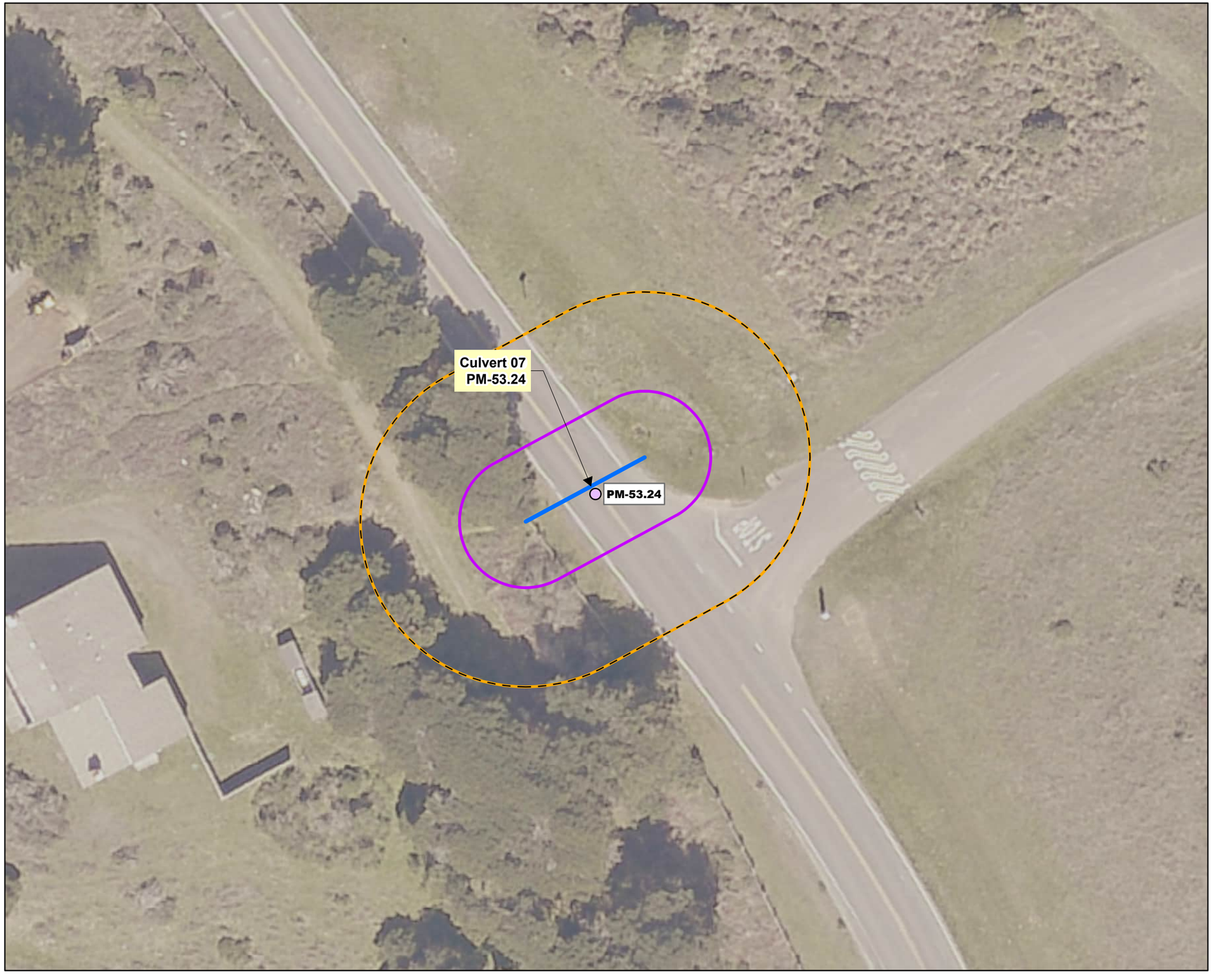
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 06 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California



LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 07 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

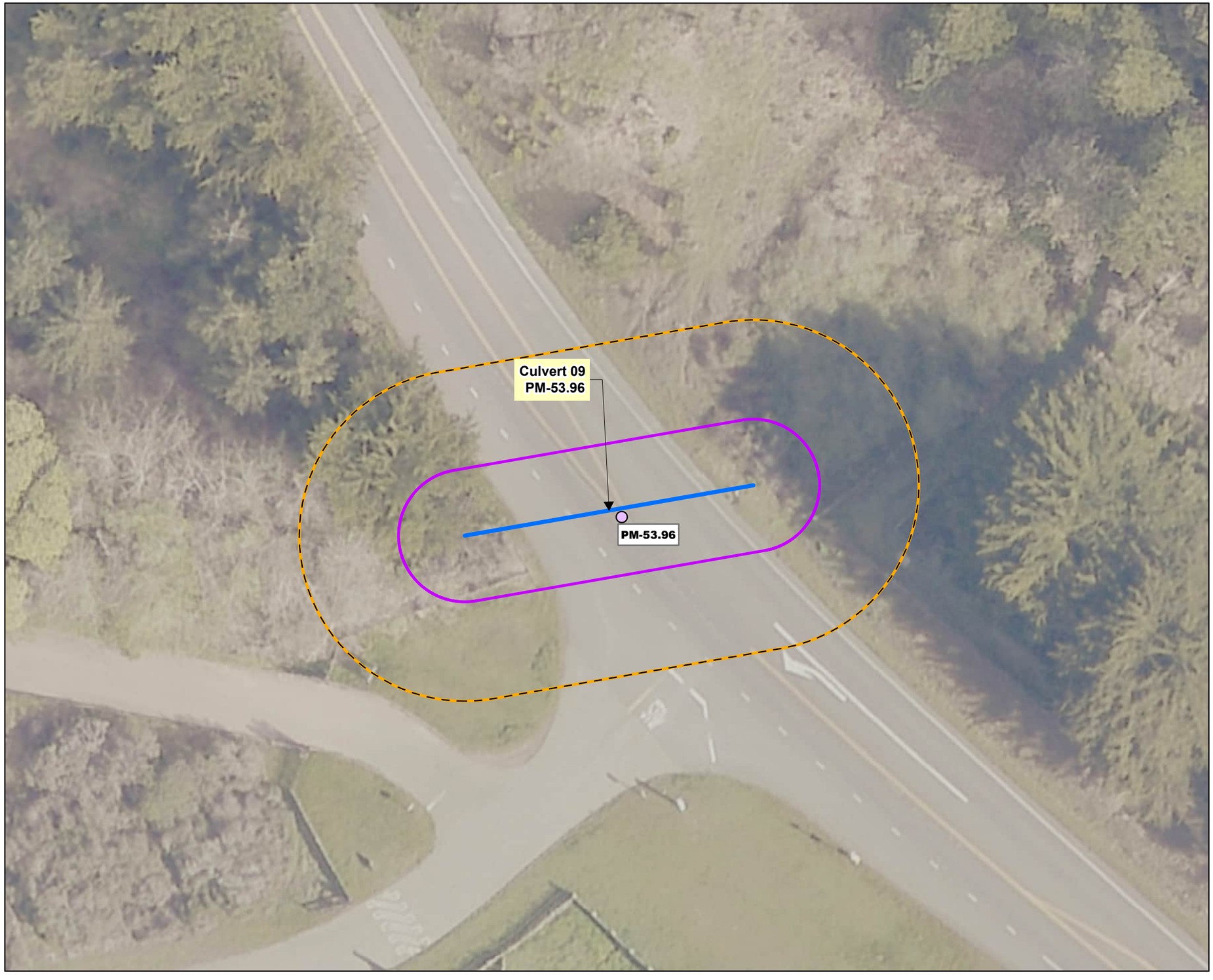
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 08 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California



LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

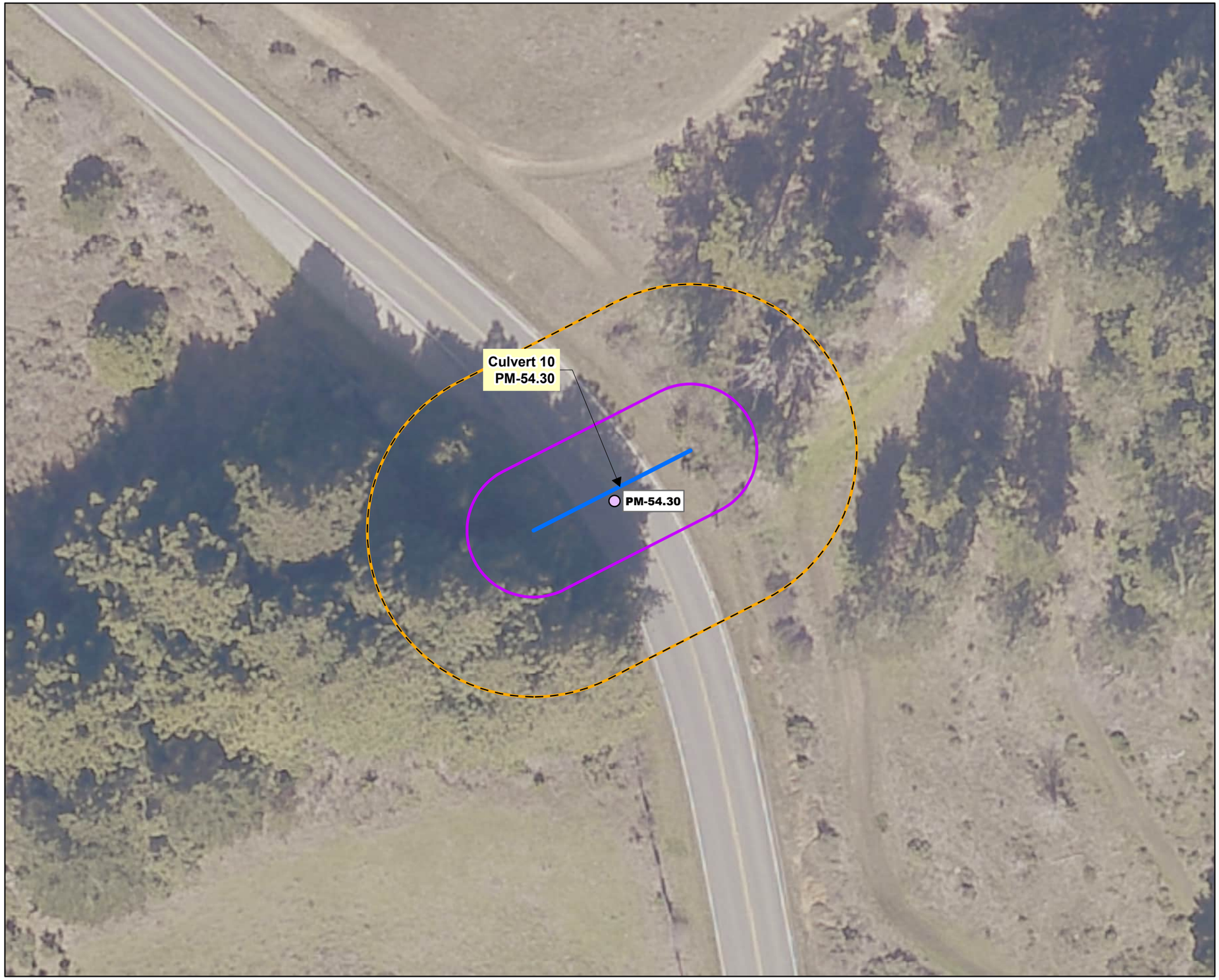
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 09 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California



LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

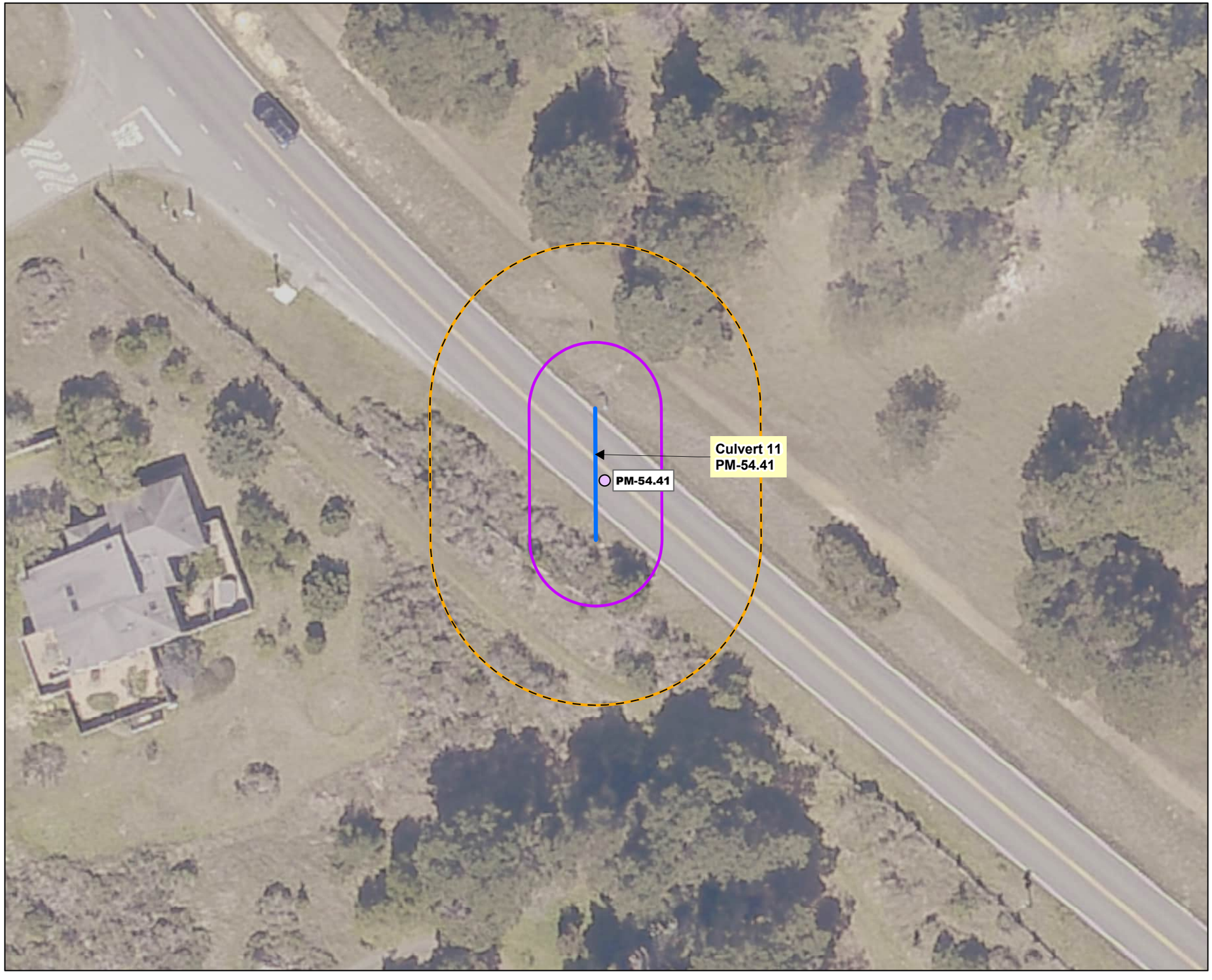
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 10 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California



LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

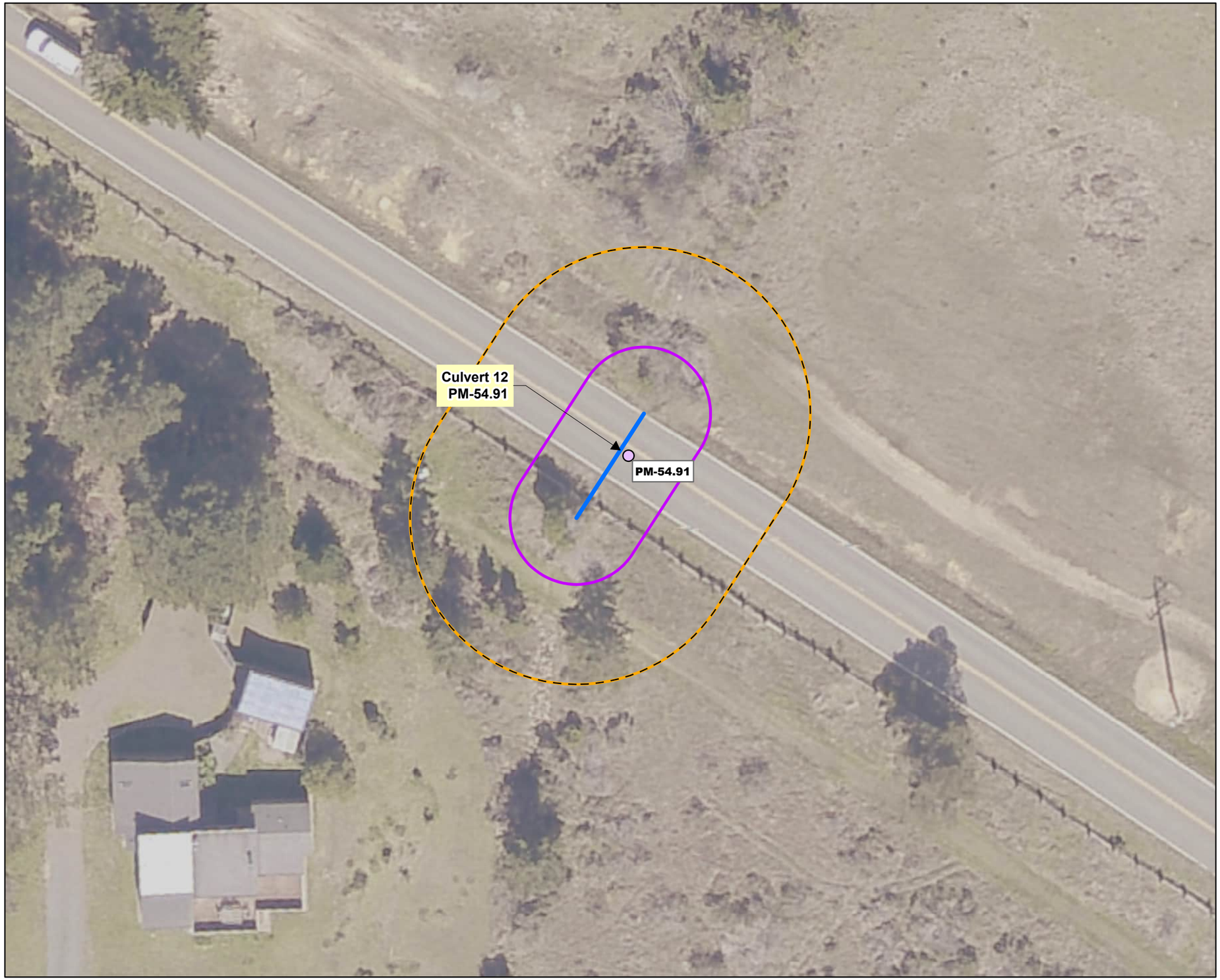
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 11 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California



LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 12 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 13 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 14 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Culverts
- Project Footprint (1.04 acres)
- Biological Study Area (4.22 acres)

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-1
Map 15 of 15
Project Footprint and Biological Study Area
SON 1 Drainage System Restoration Project *04-0W740, SON-1-51.1-56.4*
Sonoma County, California

LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Wetland Sample Points (SP)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

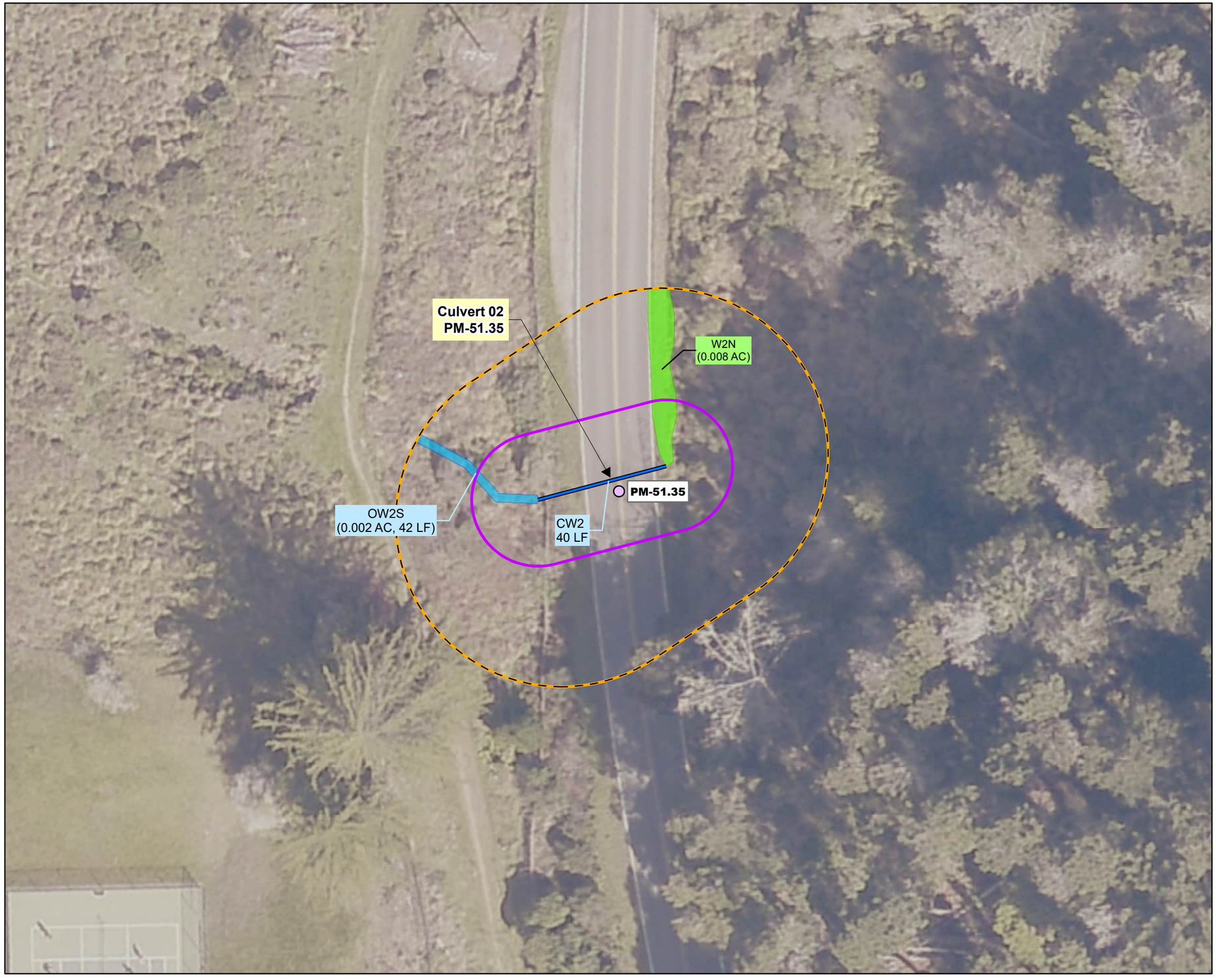
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 01 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 02 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California

LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Wetland Sample Points (SP)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

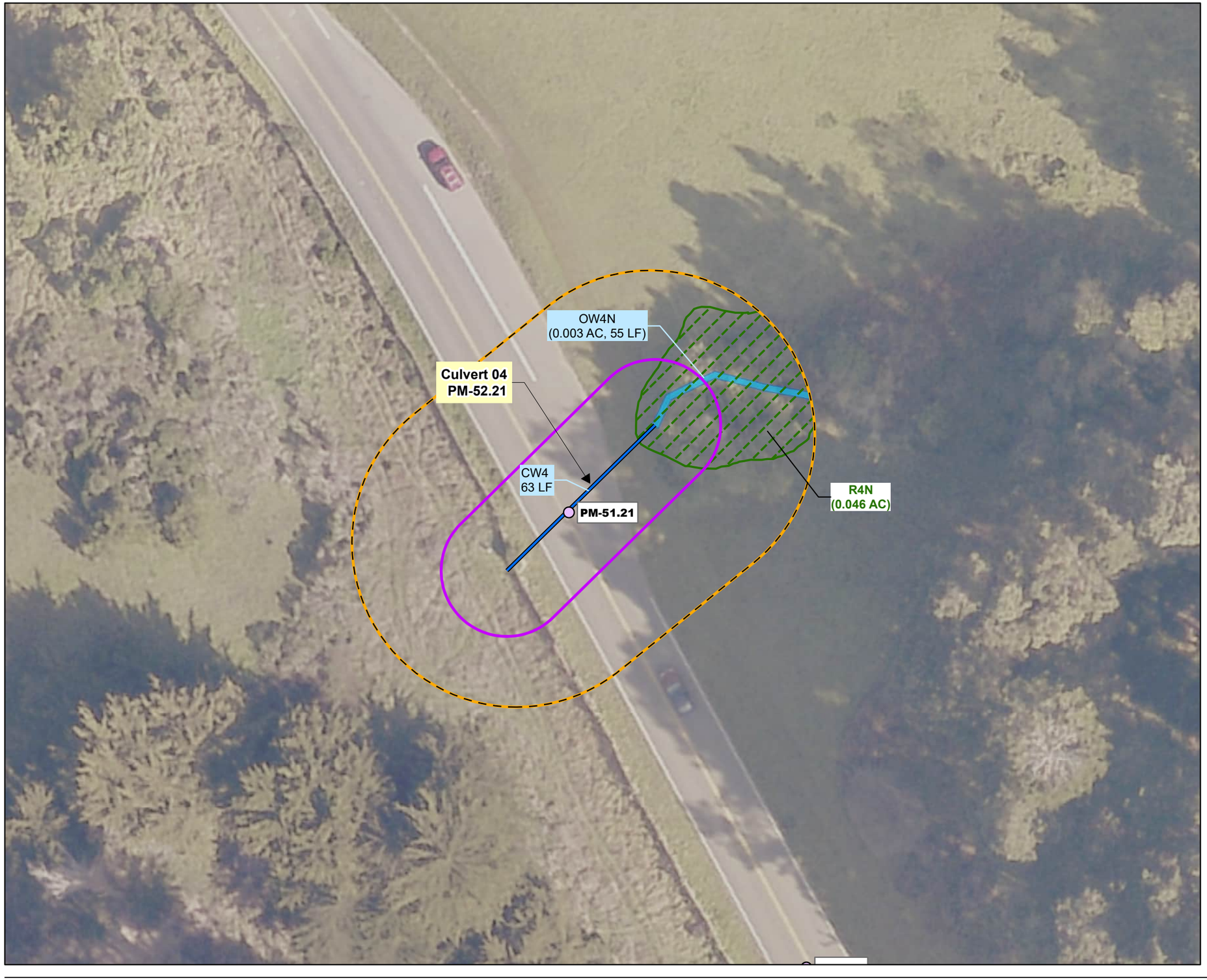
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 03 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

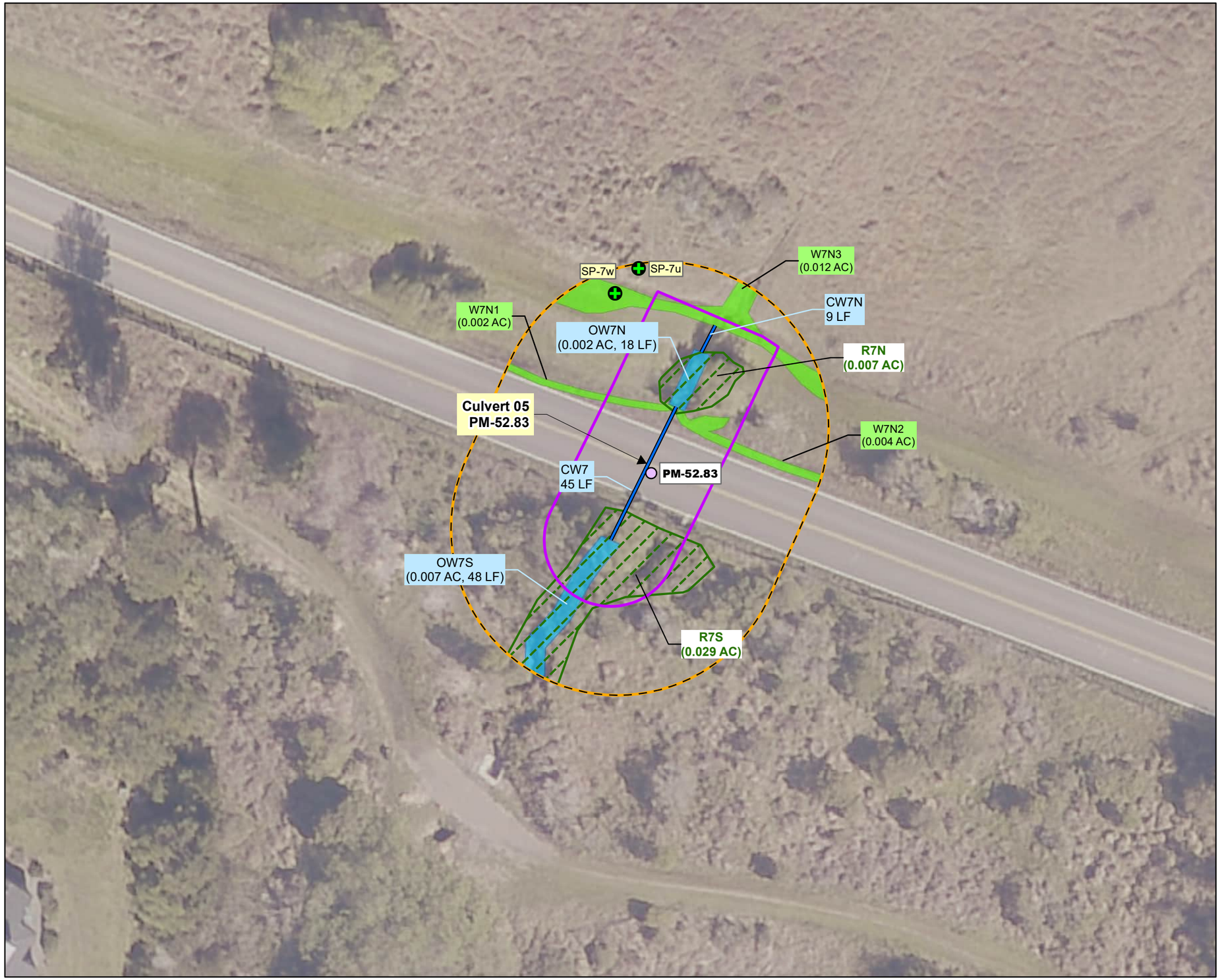
N

0 25 50
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-2
Map 04 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Wetland Sample Points (SP)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

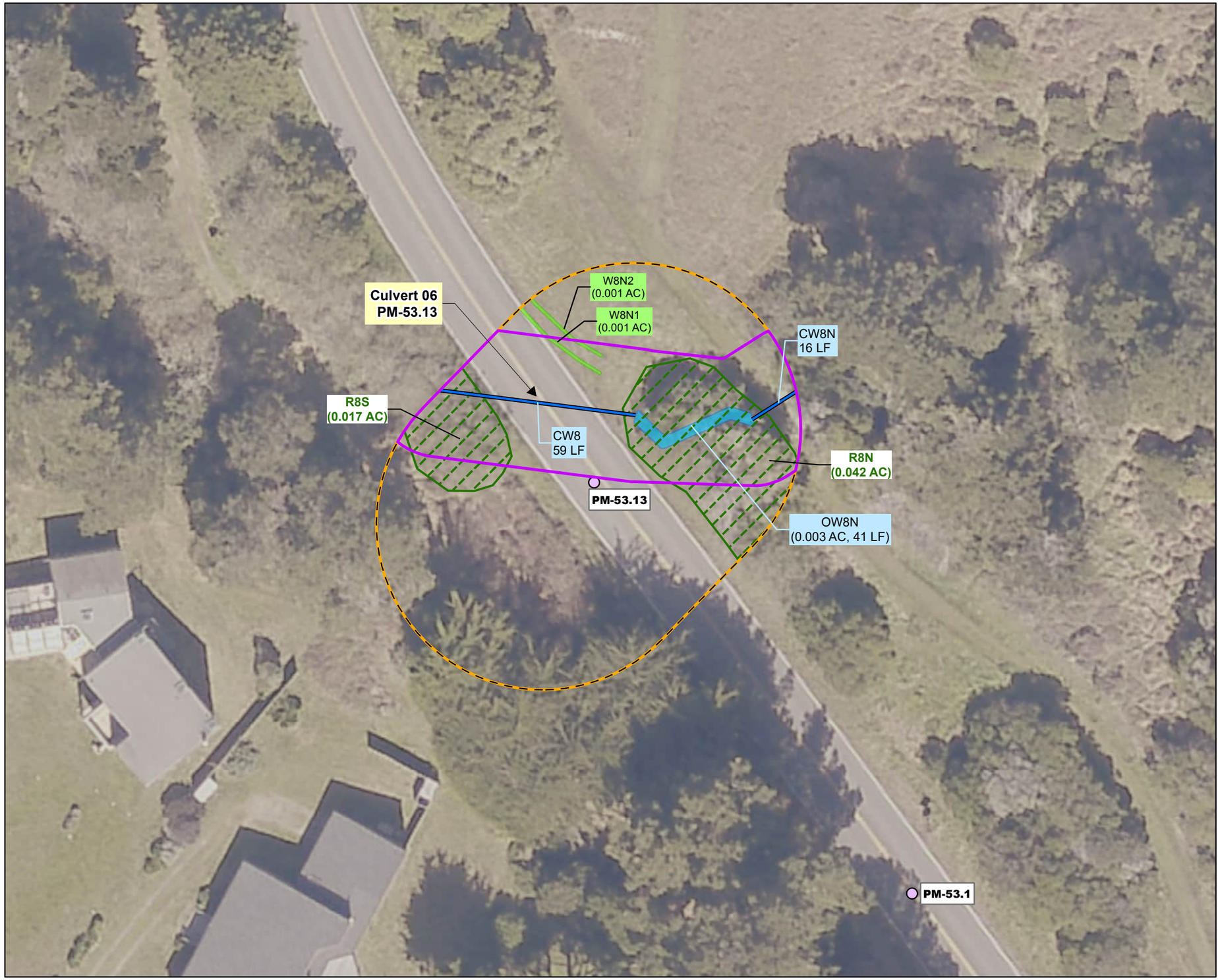
N

0 25 50
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-2
Map 05 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

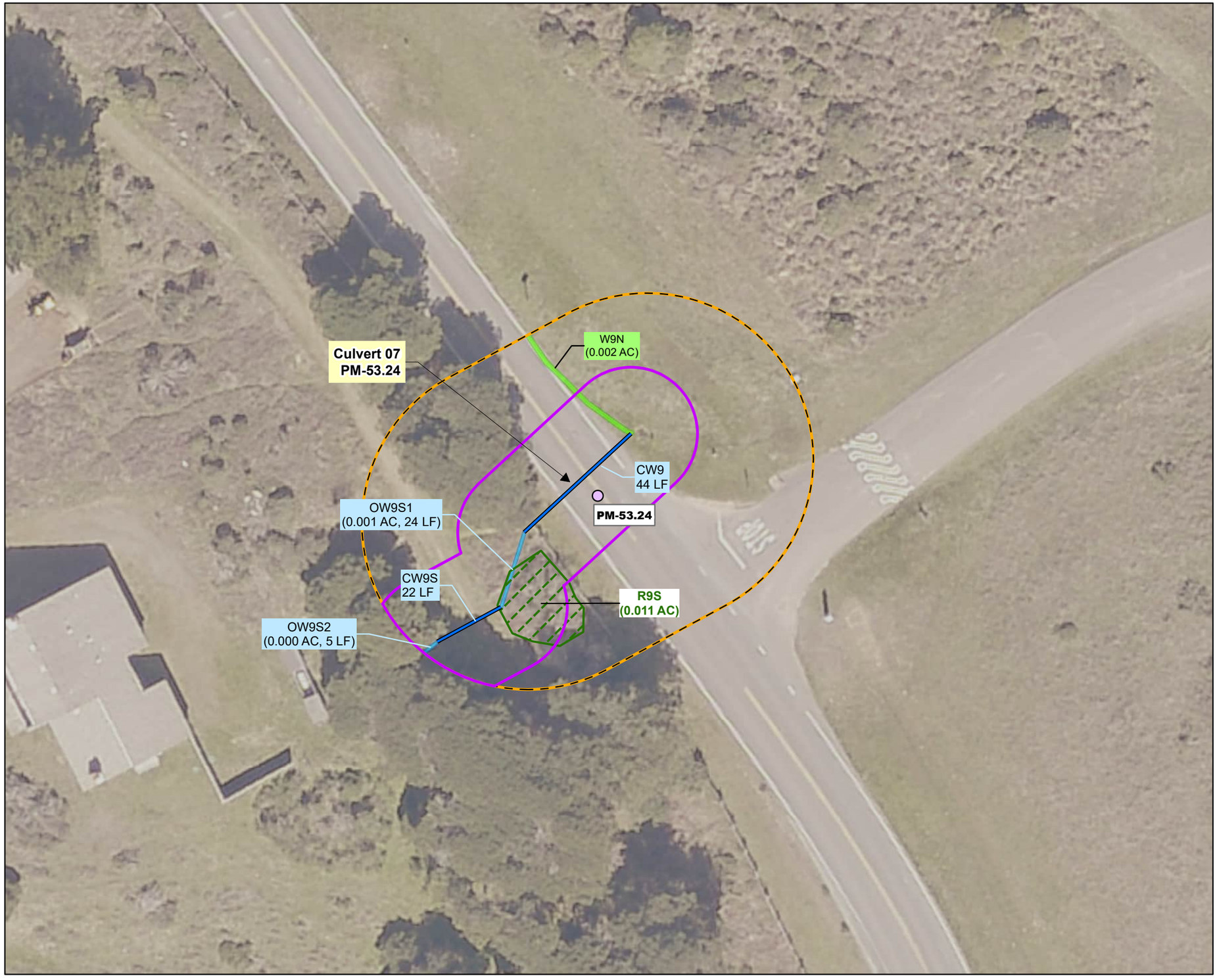
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 06 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

N

0 25 50
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-2
Map 07 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California

LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Wetland Sample Points (SP)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

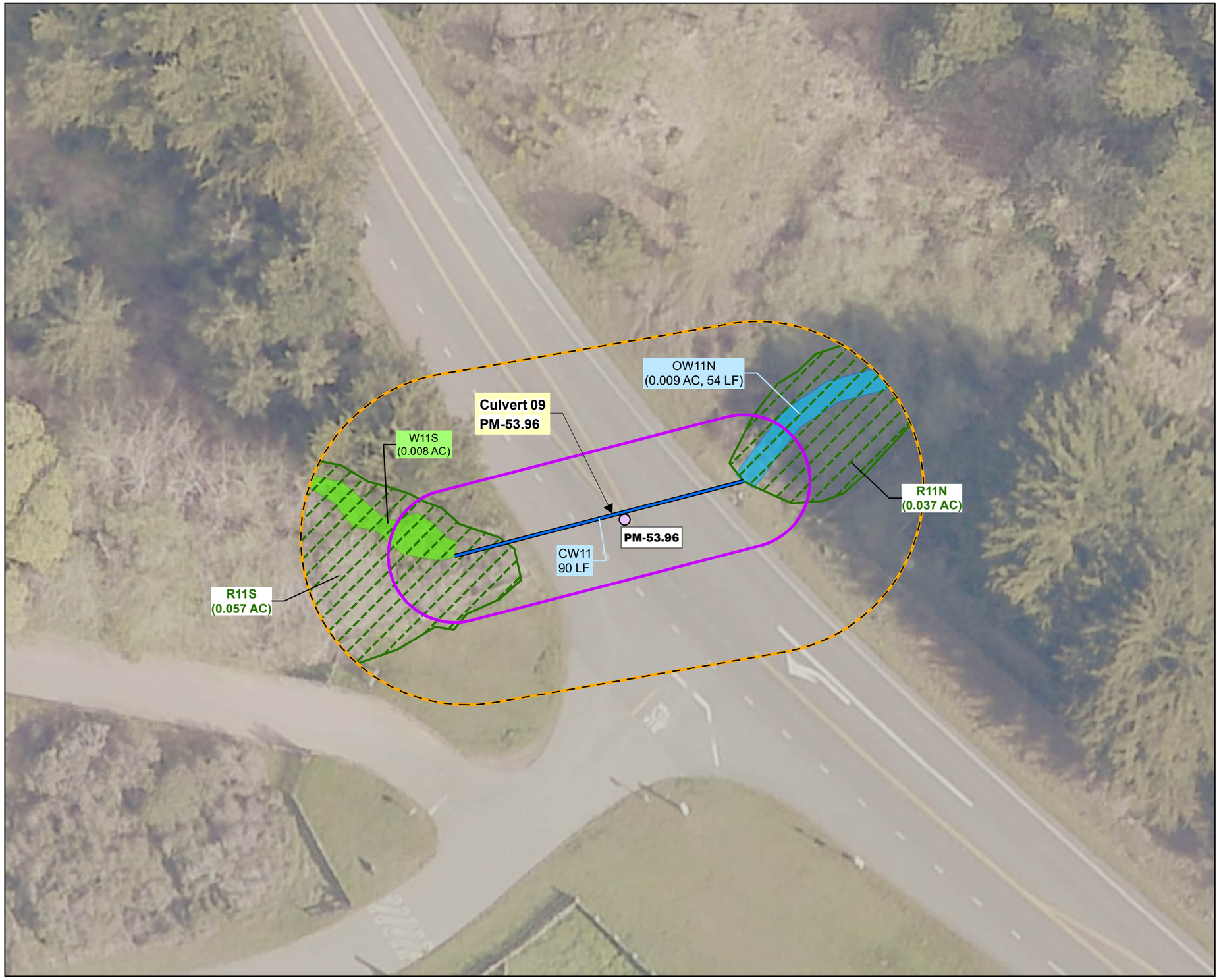
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 08 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

- Other Waters (OW) (0.086 AC, 926 LF)
- Wetlands (W) (0.108 AC)
- Culverted Waters (CW) (1,306 LF)

Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

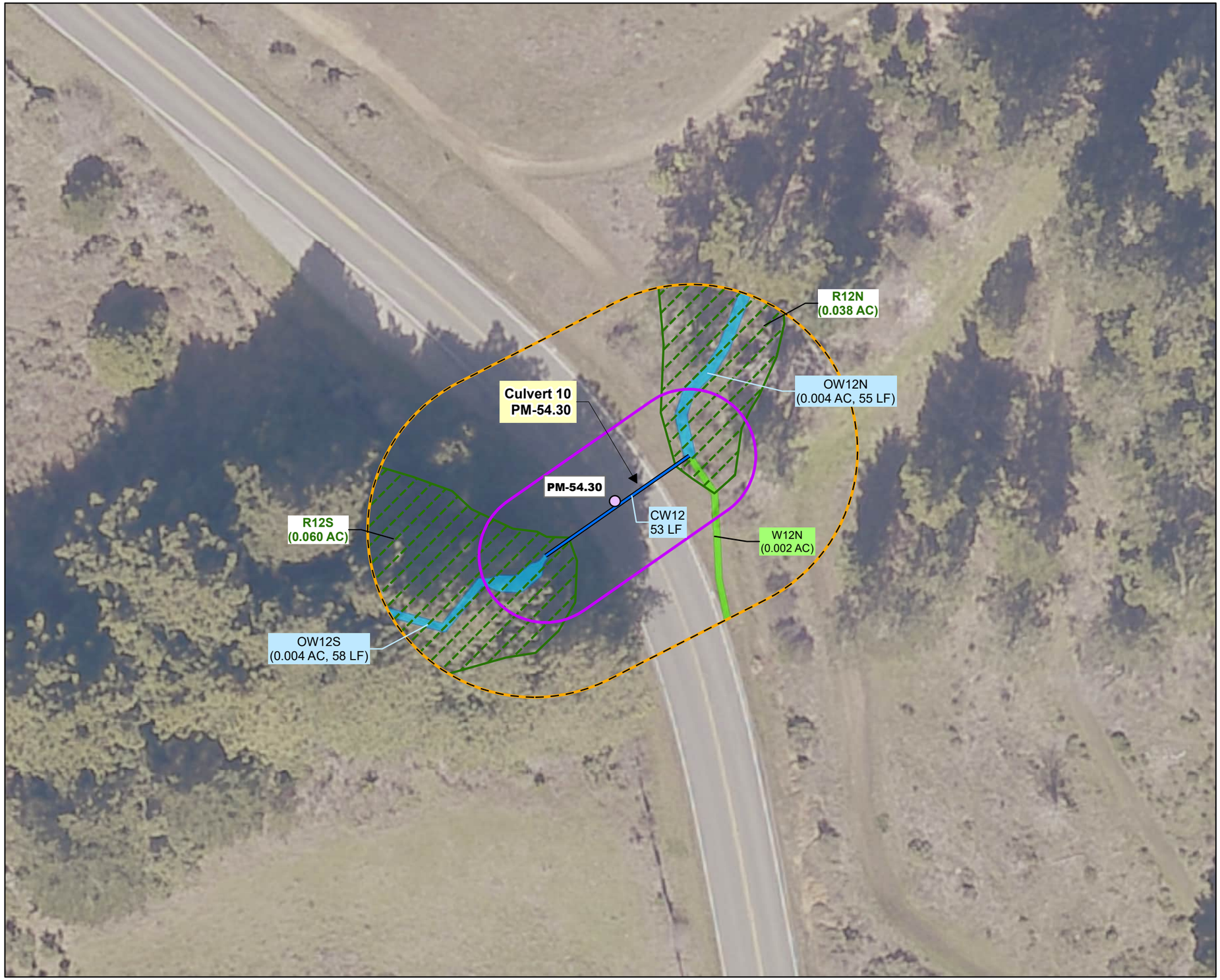
N

0 25 50
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-2
Map 09 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

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- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
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Note:
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LF = linear feet

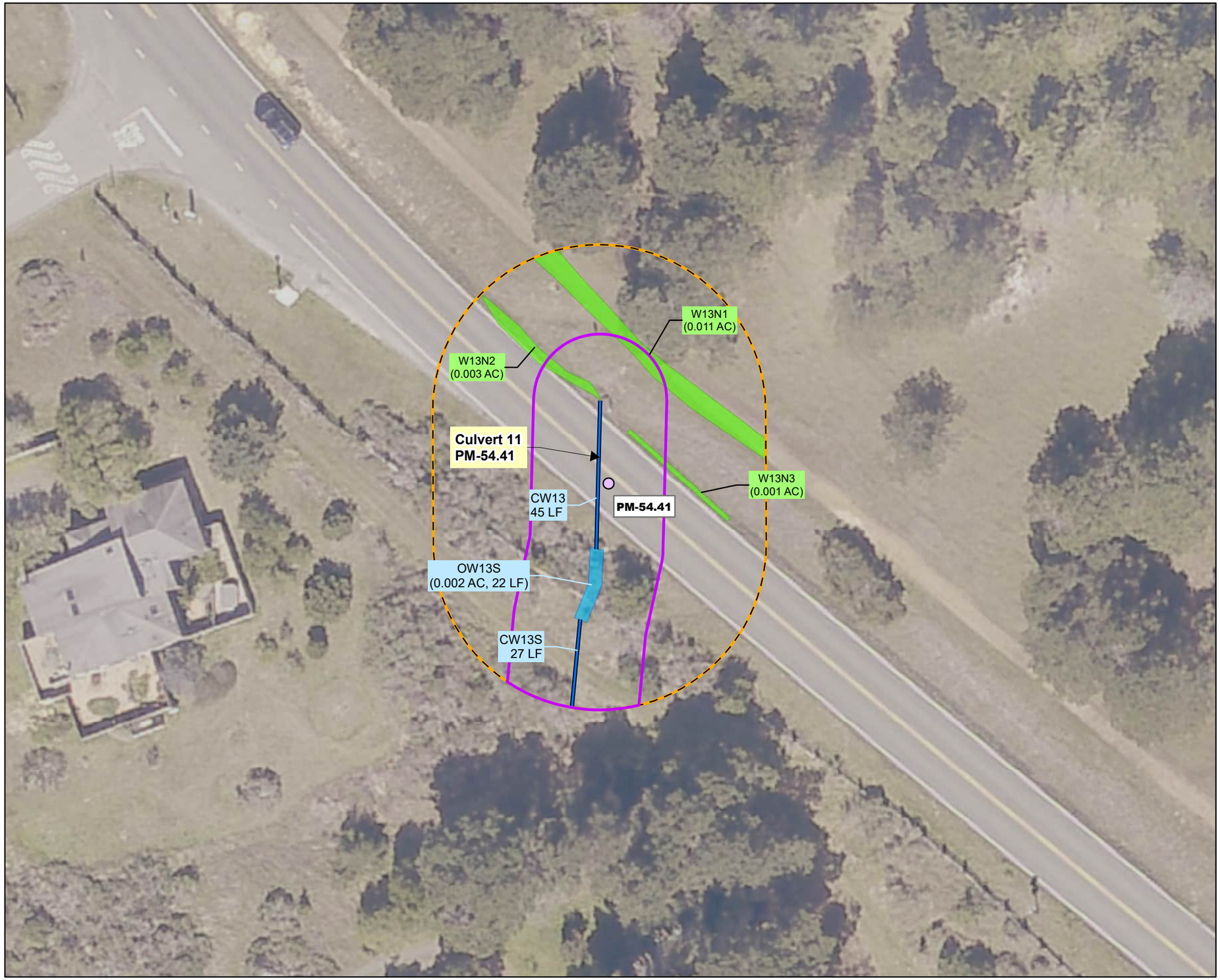
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 10 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

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- Study Area (4.22 acres)

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S. Grady, 4/30-5/01/2024

Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

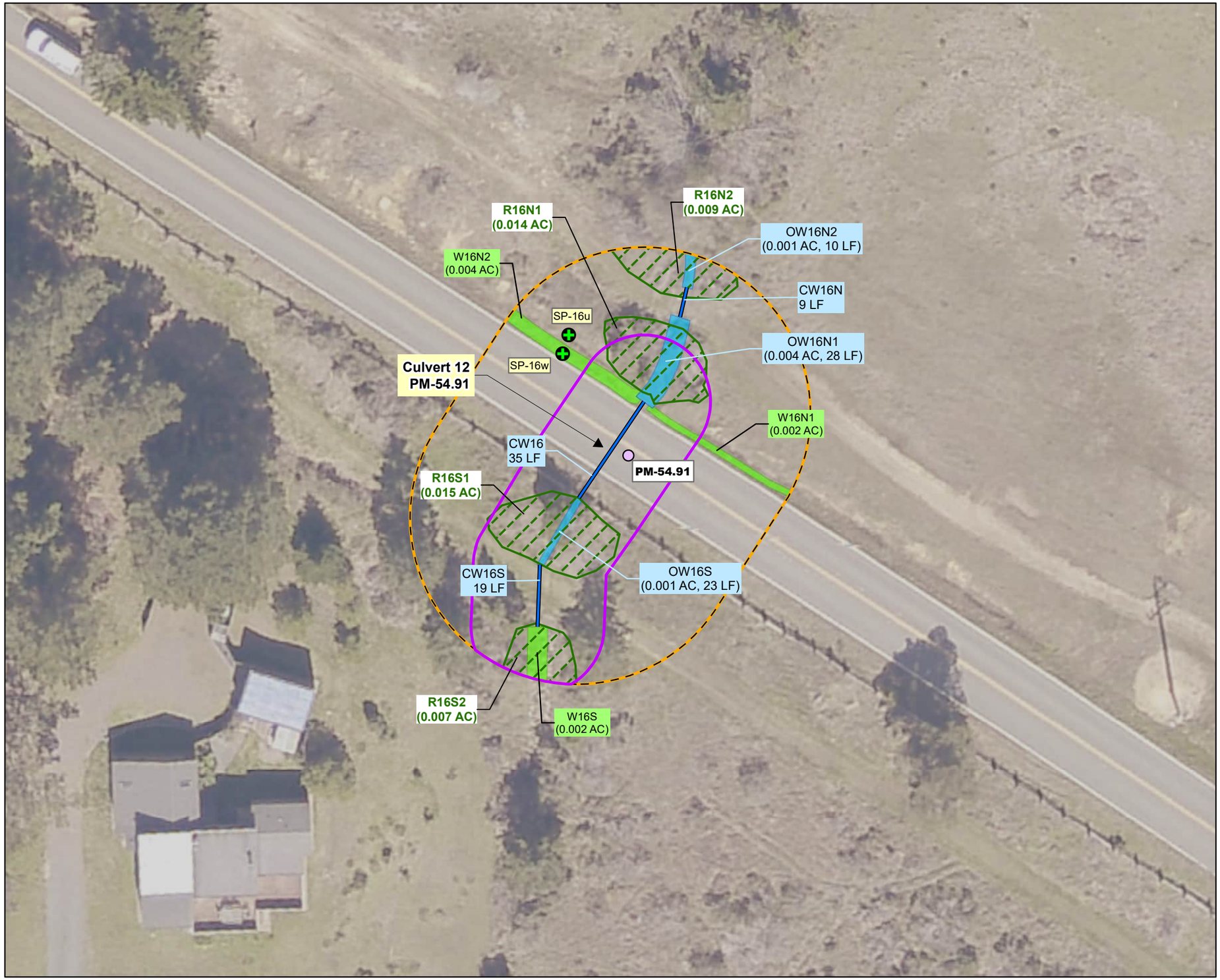
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 11 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

- Post Mile
- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Wetland Sample Points (SP)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

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Deliniators:
N. Schowalter, S. McGarvey, L. Devlas,
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Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

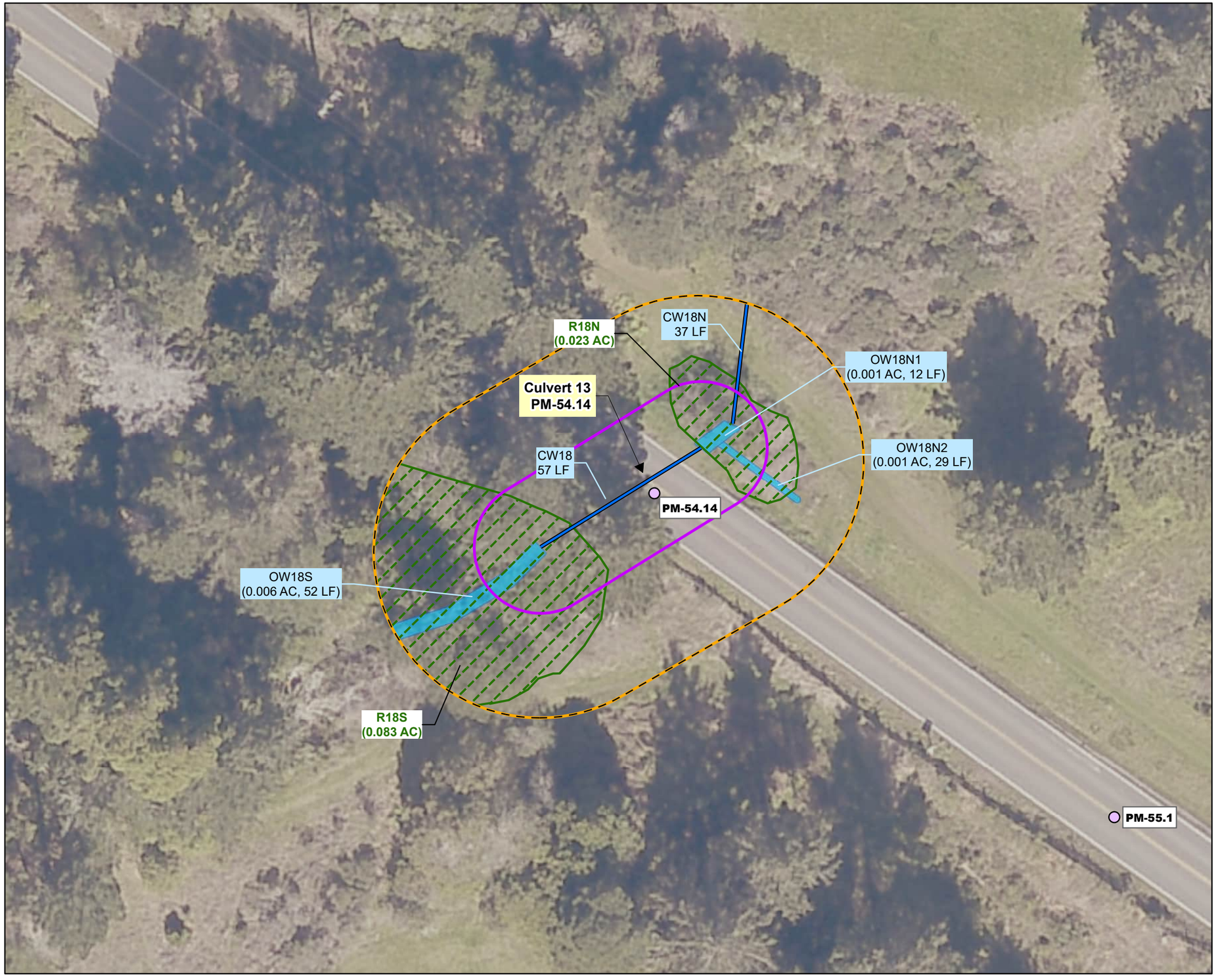
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 12 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

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- Study Area (4.22 acres)
- Riparian (R) (0.905 AC)

Potential Aquatic Resources

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Note:
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LF = linear feet
N = Northbound
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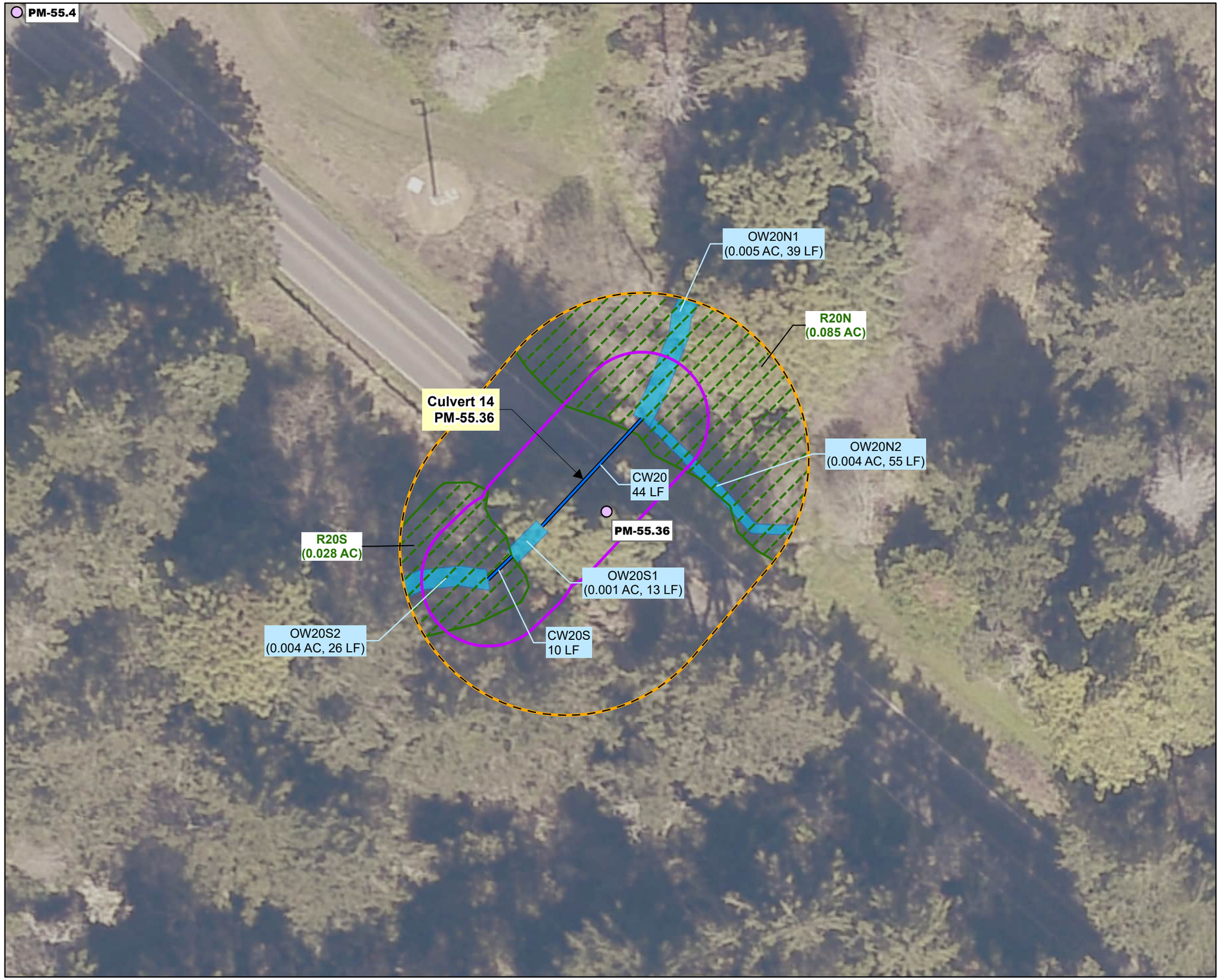
N

0 25 50
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-2
Map 13 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



LEGEND

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- Project Footprint (1.30 acres)
- Study Area (4.22 acres)
- Riparian (R) (0.905 AC)

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Note:
AC = acre
LF = linear feet
N = Northbound
S= Southbound

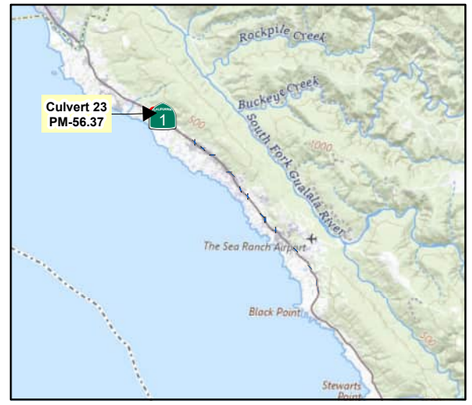
Imagery Source:
Sonoma County 2021

N

0 25 50
Feet

Caltrans

Figure 3-2
Map 14 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California



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- Post Mile
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N = Northbound
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N

0 25 50
Feet

Imagery Source:
Sonoma County 2021

Caltrans

Figure 3-2
Map 15 of 15
Aquatic Resource Delineation Map
SON 1 Drainage System Restoration Project
04-0W740, SON-1-51.1-56.4
Sonoma County, California

Appendix B Title VI Policy Statement

California Department of Transportation

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS–49 | SACRAMENTO, CA 94273–0001
(916) 654-6130 | FAX (916) 653-5776 TTY 711
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September 2023

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

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

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

TONY TAVARES
Director

Appendix C Summary of Project Features and Avoidance and Minimization Measures

Project Features

PF AQ-1: Control Measures for Construction Emissions of Fugitive Dust. Dust control measures will be implemented to minimize airborne dust and soil particles generated from graded areas. For disturbed soil areas, the use of an organic tackifier to control dust emissions will be included in the construction contract. Watering guidelines will be established by the contractor and approved by the Caltrans Resident Engineer. Any material stockpiles during construction will be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion.

PF BIO-1: Seasonal Avoidance. Construction, below top of bank, will be constrained to the dry season (June 1 – October 31). Caltrans will complete tree removal activities outside bird nesting season (February 1 - September 30).

PF BIO-2: Environmentally Sensitive Area Fencing. Before starting construction, environmentally sensitive areas (ESAs) (defined as areas containing sensitive habitats adjacent to or within construction work areas for which physical disturbance is not allowed) will be clearly delineated using high-visibility orange fencing. The ESA fencing will remain in place throughout the Project duration and will prevent construction equipment or personnel from entering sensitive habitat areas. The ESA fencing also serves to delineate the Project footprint in which all construction activity is to occur. The final Project plans will depict the locations where ESA fencing will be installed and how it will be assembled/constructed.

PF BIO-3: Wildlife Exclusion Fencing. Before the start of construction, wildlife exclusion fencing (WEF) will be installed along the Project footprint perimeter in areas where specific wildlife could enter the Project site. The final Project plans will depict the locations where WEF will be installed and how it will be assembled/constructed. The location of the WEF will be determined in coordination with USFWS. The special provisions in the bid solicitation package will clearly describe acceptable WEF fencing material and proper WEF installation and maintenance. The WEF will remain in place throughout the Project duration while construction activities are ongoing and will be regularly inspected for stranded

animals and fully maintained. The WEF will be removed following completion of construction activities.

PF BIO-4: Stormwater Best Management Practices. In accordance with RWQCB requirements, a Stormwater Pollution Prevention Plan will be developed, and erosion control best management practices (BMPs) implemented to minimize wind- or water-related erosion. The Caltrans Construction Site BMP Manual (Caltrans 2017) provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:

- Prohibiting discharge of pollutants from vehicle and equipment cleaning into storm drains or watercourses.
- Servicing vehicles and construction equipment including fueling, cleaning, and maintenance at least 50 feet from aquatic habitat unless separated by topographic or drainage barrier.
- Collecting and disposing of concrete wastes and water from curing operations in appropriate washouts, located at least 50 feet from watercourses.
- Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment.
- Using water trucks and dust palliatives to control dust in unvegetated areas and covering of temporary stockpiles when weather conditions require. Protecting graded and designated staging areas from erosion using an appropriate combination of approved erosion control items or methods, in accordance with the Stormwater Pollution Prevention Plan, as indicated in the RWQCB permit, and as stated in the contract plans and special provisions.
- Establishing permanent erosion control measures such as bio-filtration strips and swales to receive stormwater discharges from the highway or other impervious surfaces to the maximum extent practicable.

PF BIO-5: Construction-site Management Practices. The following site restrictions will be implemented to avoid or minimize potential impacts on listed species and their habitats:

- Enforcing a speed limit of 15 miles per hour in the Project footprint in unpaved and paved areas to reduce dust and excessive soil disturbance.
- Locating construction access, staging, storage, and parking areas within the Project ROW outside any designated ESA. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.
- Certifying, to the maximum extent practicable, borrow material is 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 pets from entering the Project footprint during construction.
- Prohibiting firearms within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.
- Maintaining equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents and developing a Spill Response Plan. Hazardous materials such as fuels, oils, solvents, and similar will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.

PF BIO-6: Worker Environmental Awareness Training. Prior to ground-disturbing activities, an agency-approved biologist will conduct an education program for all construction personnel. At a minimum, the training will include a description of special-status species, migratory birds, and their habitats, how the species might be encountered within the Project area, an explanation of the status of these species and protection under the federal and state regulations, the measures to be implemented to conserve listed species and their habitats as they relate to the work site, boundaries within which construction may occur, and how to best avoid the incidental take of listed species. The field meeting will include topics on species identification, life-history, descriptions, and habitat requirements during various life stages. Emphasis

will be placed on the importance of the habitat and life stage requirements within the context of Project maps showing areas where AMMs are to be implemented. The program will include an explanation of applicable federal and state laws protecting listed species, as well as the importance of compliance with Caltrans and various resource agency conditions.

PF BIO-7: Pre-construction Nesting Bird Surveys and Nest Avoidance. During the nesting season (February 1 - September 30), pre-construction surveys for nesting birds will be conducted by a qualified biologist no more than 72 hours prior to the start of construction activities. If work is to occur within 300 feet of active raptor nests or 50 feet of active non-game bird nests, a non-disturbance buffer will be established at a distance sufficient to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. To minimize and avoid take of migratory birds, their nests, and their young, Caltrans will conduct vegetation and tree trimming outside of the bird nesting season, prior to construction. This work will be limited to vegetation and trees that are within the Project footprint. Additional bird nesting surveys will be required if work must occur during the nesting season.

PF BIO-8: Avoidance of Entrapment. To prevent inadvertent entrapment of animals during construction, excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day using plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the Project area overnight will be inspected before they are subsequently moved, capped, and/or buried.

PF BIO-9: Vegetation Removal. Vegetation that is within the cut and fill line or growing in locations where permanent structures will be placed will be cleared. Vegetation will be cleared only where necessary and will be cut above soil level, except in areas that will be permanently impacted or excavated. This will allow plants that reproduce vegetatively to resprout after construction. Clearing and grubbing of woody vegetation will occur by hand or using construction equipment such as mowers, backhoes and excavators. If clearing and grubbing occurs between February 1 and September 30, the biological monitor will survey for nesting birds within the areas to be disturbed (including a perimeter buffer of 50 feet for passerines/migratory birds and 300 feet for raptors) before clearing activities begin. All nest avoidance

requirements of the Migratory Bird Treaty Act and California Fish and Game Code will be observed, such as establishing appropriate protection buffers around active nests until young have fledged. Cleared vegetation will be chipped and left onsite if appropriate or removed from the Project footprint if it could be used as nesting habitat.

PF BIO-10: Replant, Reseed, and Restore Disturbed Areas. Caltrans will restore temporarily disturbed areas to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted, based on the local species composition.

PF BIO-11: Reduce Spread of Invasive Species. To reduce the spread of invasive, non-native plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of it in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing 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.

PF 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.

PF 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.

PF 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; ensure regular maintenance of construction vehicles and equipment; and if feasible, recycle nonhazardous waste and excess materials to reduce disposal offsite.

PF 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.

PF WQ-1: Construction Site BMPs. To prevent or reduce water quality impacts to the Project corridor, BMPs will be deployed for sediment control, pH, and material management. BMPs will include, but are not limited to: job site management, wind erosion control, concrete waste management, non-stormwater management.

PF WQ-2: Temporary Stream Diversions. Temporary stream diversions will be used when necessary for culvert replacements. If needed, stream diversion will be determined during the design phase of the Project.

PF 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: Minimize impacts to existing vegetation. Vegetation to remain will be protected from construction activities by temporary fencing when close to construction work or staging areas, especially mature trees and shrubs.

AMM AES-2: Staging areas shall not be located where they require the removal of plants other than weedy vegetation or cause the compaction of any tree roots.

AMM AES-3: Where the pruning of trees is required to accommodate construction operations, pruning must be done under the supervision of an ISA certified arborist with standards outlined by ANSI A300 Part 1 by the Tree Care Industry Association.

AMM AES-4: Surfaces of structural elements, such as headwalls, and drainage infrastructure, such as exposed piping, will be treated with aesthetic surfacing to limit visual contrast from the surroundings.

AMM ASE-5: Construction materials and equipment shall be stored in screened staging areas.

AMM AES-6: Limit light trespass with the use of directional lighting, shielding, and other measures as needed during nightwork.

AMM AES-7: Restore vegetated areas to pre-project visual conditions, including all areas disturbed by equipment access, by applying climate appropriate, native erosion control seeding and/or mulch and associated permanent erosion control measures.

AMM BIO-1: Tree Removal Window. The trees that will be removed would be cut down to the stumps and removed between October 1 and January 31, the season prior to construction, to avoid bird nesting season. If trees are to be removed during bird nesting season, the biologist will survey for active nests, in accordance with permit conditions, prior to removal.

AMM BIO-2: Pre-construction CRLF Surveys. Pre-construction surveys for CRLF will be conducted by a USFWS-approved biologist no more than 14 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. Suitable non-breeding aquatic and upland habitat within the Project footprint, including refugia habitat such as under shrubs, downed logs, small woody debris, and burrows, will be inspected. If CRLF is observed, the individual will be evaluated and relocated by the biological monitor in accordance with the observation and handling protocol outlined under Item 4. Fossorial mammal burrows will be inspected for signs of frog usage, to the extent practicable. If it is determined that a burrow may be occupied by CRLF, USFWS will be contacted and work within the vicinity of the burrow will stopped per agency permits.

AMM BIO-3: Monitoring Protocols. During construction in and near potential CRLF habitat, the following protocols will be implemented during construction activities:

- Within 24 hours prior to initial ground-disturbing activities, portions of the work area where potential CRLF habitat has been identified will be surveyed by a Project biologist(s) to clear the site of frogs 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 CRLF to monitor the removal of the top 12 inches of topsoil.

- 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.

AMM BIO-4: Protocol for Species Relocation and Reporting. If CRLF are encountered in the immediate work area the following procedures will be followed:

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

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

- The biological monitor(s) will take precautions to prevent introduction of amphibian diseases in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USFWS 2005).

AMM BIO- 5: Auditory or Visual 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 the suitable NSO nesting and roosting habitat between October 31 and August 1. In addition, no human activities will occur within a visual line-of-sight of 131 feet or less from any known nest locations within the action area. These above-ambient sound level restrictions will be lifted after July 31, after which the above-ambient sound levels are considered as having "no effect" on nesting NSO and dependent young.

AMM BIO-6: Pre-construction Survey for Western dog violet (*Viola adunca*). A pre-construction survey for Western dog violet (*Viola adunca*) will be conducted in the early spring, prior to construction, referencing phenology trends observed at 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 BIO-7: Pre-construction WPT Surveys. Pre-construction surveys for WPT will be conducted by a USFWS-approved biologist no more than 14 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. If a WPT is encountered, construction will be halted and USFWS will be contacted to determine how to proceed.

AMM BIO-8: Pre-construction Surveys for Roosting Bats. An approved biologist shall conduct a habitat assessment for potentially suitable bat roosting habitat, including inside culverts and surrounding anthropogenic structures capable of provide suitable roosting habitat and within trees from March 1 to April 1 or August 31 to October 15 prior to construction activities. If the habitat assessment reveals any structure is suitable roosting habitat for bats, then the appropriate exclusionary measures will be implemented prior to construction during the period between March 1 to April 15 or August 31 to October 15. Potential avoidance may include exclusionary blocking or filling potential cavities with foam, visual monitoring, and

staging Project work to avoid bats. If bats are known to use the structure, exclusion netting shall not be used.

If the habitat assessment reveals suitable bat habitat in trees and tree removal is scheduled from April 16 through August 30 and/or October 16 through February 28, then presence/absence surveys shall be conducted two to three days prior to any tree removal or trimming. If presence/absence surveys are negative, then tree removal may be conducted by following a two phased tree removal system. If presence/absence surveys indicate bat occupancy, then the occupied trees shall only be removed from March 1 through April 15 and/or August 31 through October 15 by following the two-phased tree removal system.

The two-phase system shall be conducted over 2 consecutive days. On the first day, (in the afternoon) limbs and branches are removed by a tree cutter using chainsaws or other hand tools. Limbs with cavities, crevices, or deep bark fissures are avoided and only branches or limbs without those features are removed. On the second day, the entire tree shall be removed.

AMM Noise-1: Specifications for Controlling Noise and Vibration. Noise from construction activities will not exceed 86 A-weighted decibel Lmax[2] at 50 feet from 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: Public Outreach. Public outreach shall be required throughout the project to update residents, businesses and others with upcoming activities and time frame of project.

AMM Noise-3: Noise Levels During Construction. The following measures will be implemented during construction to reduce noise:

- Any operation exceeding 86 dBA shall not be allowed at nighttime from 9:00 p.m. to 6 a.m.
- Schedule noisy operations within the same time frame. The total noise level will not be significantly greater than the level produced if operations are performed separately.

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

- Avoid unnecessary idling of internal combustion engines within 100 feet of sensitive receptors.
- 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.
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Utilize "quiet" air compressors and other "quiet" equipment where such technology exists.
- No construction equipment will be delivered and dropped off before 6:00 a.m.
- Maintain all internal combustion engine properly to minimize noise generation.

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.

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.

Appendix D Species Tables

Table D-1. Special-status Plant Species with Potential to Occur in the Biological Study Area

Scientific Name	Common Name	FED Status	CA Status	CA Rare Plant Bank	Blooming Period	General Habitat	Micro Habitat (Meters [m])	Potential to Occur	Effect Finding for Federally Listed Species
Agrostis blasdalei	Blasdale's bent grass	N/A	N/A	1B.2	May to July	Coastal bluff scrub, Coastal dunes, Coastal prairie	0 to 150 m	**Low.** Coastal scrub is present, but dunes, sandstone rocks, and granite outcrops are absent. There are two historic occurrences within 2 miles of the BSA.	N/A
Calystegia purpurata ssp. *saxicola*	coastal bluff morning-glory	N/A	N/A	1B.2	(March) April to September	Coastal bluff scrub, Coastal dunes, Coastal scrub, North Coast coniferous forest	0 to 105 m	**Moderate.** Coastal scrub, grassland, and forest habitat is present. There are recent occurrences within the BSA.	N/A
Carex saliniformis	deceiving sedge	N/A	N/A	1B.2	(May) June (July)	Coastal prairie, Coastal scrub, Marshes and swamps (coastal salt), Meadows and seeps	Mesic. 3to 230 m	**Low.** Coastal scrub is present. There are two historic occurrences within 2 miles of the BSA.	N/A
Eastwoodiella californica	swamp harebell	N/A	N/A	1B.2	June to October	Bogs and fens, Closed-cone coniferous forest, Coastal prairie, Marshes and swamps (freshwater), Meadows and seeps, North Coast coniferous forest	Mesic. 1 to 405 m	**Moderate.** Forest habitat is present. There are recent occurrences within the BSA.	N/A
Erigeron supplex	supple daisy	N/A	N/A	1B.2	May to July	Coastal bluff scrub, Coastal prairie	10 to 50 m	**Moderate.** Coastal scrub and grassland habitats are present. There are recent occurrences within the BSA.	N/A
Gilia capitata ssp. *pacifica*	Pacific gilia	N/A	N/A	1B.2	April to August	Chaparral (openings), Coastal bluff scrub, Coastal prairie, Valley and foothill grassland	5 to 1,665 m	**Low.** Coastal scrub and grassland habitats are present. There is one historic occurrence within 2 miles of the BSA.	N/A
Gilia capitata ssp. *tomentosa*	woolly-headed gilia	N/A	N/A	1B.1	May to July	Coastal bluff scrub, Valley and foothill grassland	Rocky, Serpentine. 10 to 220 m	**None.** No suitable habitat present.	N/A
Hesperevax sparsiflora var. *brevifolia*	short-leaved evax	N/A	N/A	1B.2	March to June	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie	0 to 215 m	**Moderate.** Coastal scrub and grasslands habitats are present. There are recent occurrences within the BSA.	N/A
Lasthenia californica ssp. *macrantha*	perennial goldfields	N/A	N/A	1B.2	January to November	Coastal bluff scrub, Coastal dunes, Coastal scrub	5 to 520 m	**Low.** Coastal scrub habitat is present, but dunes are absent. There are historic occurrences within 2 miles of the BSA.	N/A
Lathyrus palustris	marsh pea	N/A	N/A	2B.2	March to August	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest	Mesic. 1 to 100 m	**Moderate.** Coastal scrub and forest habitats are present. There are recent occurrences within 2 miles of the BSA.	N/A
Lilium maritimum	coast lily	N/A	N/A	1B.1	May to August	Broadleafed upland forest, Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), North Coast coniferous forest	Roadside (sometimes). 5 to 475 m	**Moderate.** Coastal scrub and forest habitat is present. There is one recent CNDDB occurrence within 2 miles of the BSA.	N/A

Scientific Name	Common Name	FED Status	CA Status	CA Rare Plant Bank	Blooming Period	General Habitat	Micro Habitat (Meters [m])	Potential to Occur	Effect Finding for Federally Listed Species
Sidalcea calycosa ssp. *rhizomata*	Point Reyes checkerbloom	N/A	N/A	1B.2	April to September	Marshes and swamps (freshwater, near coast)	3 to 75 m	**Moderate.** There are recent occurrences within the BSA.	N/A
Sidalcea malviflora ssp. *purpurea*	purple-stemmed checkerbloom	N/A	N/A	1B.2	May to June	Broadleafed upland forest, Coastal prairie	15 to 85 m	**Low.** Grassland and forest habitat is present. There is one historic occurrence within 2 miles of the BSA.	N/A
Sulcaria spiralifera	twisted horsehair lichen	N/A	N/A	1B.2	N/A	Coastal dunes (SLO Co.), North Coast coniferous forest (immediate coast)	Usually on conifers. 0 to 90 m	**Low.** Coniferous forest habitat is present. There are no nearby occurrences recorded.	N/A

Notes:

California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR):

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 more common elsewhere
2B = Plants rare, threatened, or endangered in California but more common elsewhere

Threat Ranks

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Moderately threatened in California (20% to 80% occurrences threatened / moderate degree and immediacy of threat)
.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat of no current threats known)

Federal Endangered Species Act (FESA) Ratings:

E = Endangered
T = Threatened

California Endangered Species Act (CESA) Ratings:

CE = State Endangered Species
CR = State Rare Species
CT = State Threatened Species

N/A = not applicable

Sources: CNPS 2024; CDFW 2024

Table D-2. Special-status Animal Species with Potential to Occur in the Biological Study Area

Species	Scientific Name	Common Name	FED Status	CA Status	General Habitat Requirement	Microhabitat	Potential to Occur	Effect Finding for Federally Listed Species
Mammals	*Arborimus pomo*	Sonoma tree vole	N/A	N/A	North coast fog belt from Oregon border to Sonoma County. In Douglas-fir, redwood and montane hardwood-conifer forests.	Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of grand fir, hemlock or spruce.	Low. No nearby CNDDB occurrences.	N/A
Mammals	*Arctocephalus townsendi*	Guadalupe fur seal	T	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.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Balaenoptera borealis*	sei whale	E	N/A	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.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Balaenoptera musculus*	blue whale	E	N/A	Found worldwide, from sub-polar to sub-tropical latitudes.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Balaenoptera physalus*	fin whale	E	N/A	Found in deep, offshore waters of all major oceans.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Eubalaena japonica*	Northern Pacific right whale	E	N/A	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.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Megaptera novaeangliae*	humpback whale	E	N/A	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.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Orcinus orca*	southern resident killer whale	E	N/A	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.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Physeter macrodephalus*	sperm whale	E	N/A	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.	N/A	None. No suitable habitat is present.	No effect
Mammals	*Taxidea taxus*	American badger	N/A	N/A	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	None. No suitable habitat is present.	N/A
Birds	*Ammodramus savannarum*	grasshopper sparrow	N/A	N/A	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.	Low. Grassland habitat is present, but rolling hills and valleys are absent. There is 1 CNDDB record within 2 miles of the BSA.	N/A

Species	Scientific Name	Common Name	FED Status	CA Status	General Habitat Requirement	Microhabitat	Potential to Occur	Effect Finding for Federally Listed Species
Birds	*Brachyramphus marmoratus*	marbled murrelet	T	E	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.	Low. No nearby CNDDB occurrences, but suitable habitat is within the vicinity of the BSA.	May affect, not likely to adversely affect
Birds	*Charadrius nivosus nivosus*	western snowy plover	T	N/A	Sandy beaches, salt pond levees and shores of large alkali lakes.	Needs sandy, gravelly or friable soils for nesting.	None. No suitable habitat is present.	May affect, not likely to adversely affect
Birds	*Strix occidentalis caurina*	northern spotted owl	T	T	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees.	High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy.	Low. Foraging habitat is present within the BSA, but the NSO BIOS viewer shows known nesting sites to be 1-2 miles away.	May affect, not likely to adversely affect
Reptiles	*Chelonia mydas*	green sea turtle	T	N/A	Requires beaches for nesting, open ocean for convergence zones, and coastal areas for "benthic" feeding. Occurs in pan-tropical portions of the Atlantic, Pacific, and Indian Oceans but can occur in higher latitudes in conjunction with above-normal sea temperatures. Nesting occurs on sandy beaches primarily along islands and other undeveloped, less-exposed areas.	N/A	None. No suitable habitat is present.	No effect
Reptiles	*Dermochelys coriacea*	leatherback sea turtle	E	N/A	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.	N/A	None. No suitable habitat is present.	No effect
Reptiles	*Emys marmorata*	western pond turtle	PT	N/A	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Low. Marginal aquatic habitat is present within the BSA, and no suitable basking sites are present. However, suitable aquatic habitat, including ponds, is present in the vicinity of the BSA.	May affect, not likely to adversely affect
Reptiles	*Lepidochelys olivacea*	olive ridley sea turtle	E	N/A	Tropical and warm temperate open ocean waters. Mainly a pelagic sea turtle, but has been known to inhabit coastal areas, including bays and estuaries.	N/A	None. No suitable habitat is present.	No effect
Amphibians	*Dicamptodon ensatus*	California giant salamander	N/A	N/A	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County.	Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Low. There is 1 historic CNDDB occurrence within 2 miles of the BSA.	N/A
Amphibians	*Rana boylii* pop. 1	foothill yellow-legged frog - north coast DPS	N/A	N/A	Northern Coast Ranges north of San Francisco Bay Estuary, Klamath Mountains, and Cascade Range including watershed subbasins (HU 8) Lower Pit, Battle Creek, Thomes Creek, and Big Chico Creek in Lassen, Shasta, Tehama, and Butte Counties.	Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	Low. No suitable breeding habitat within BSA. Marginal aquatic habitat present.	N/A
Amphibians	*Rana draytonii*	California red-legged frog	T	N/A	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.	Moderate. Suitable CRLF upland, dispersal, and seasonally non-breeding aquatic habitat is present in the BSA.	May affect, likely to adversely affect

Species	Scientific Name	Common Name	FED Status	CA Status	General Habitat Requirement	Microhabitat	Potential to Occur	Effect Finding for Federally Listed Species
Fish	*Acipenser medirostris*	Southern DPS Green Sturgeon	T	SSC	Spawning site fidelity. Spawns in the Sacramento, Feather and Yuba Rivers. Presence in upper Stanislaus and San Joaquin Rivers may indicate spawning. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles.	Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	None. No suitable habitat is present.	No Effect
Fish	*Eucyclogobius newberryi*	tidewater goby	E	N/A	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.	None. No suitable habitat is present.	N/A
Fish	*Hesperoleucus parvipinnis*	Gualala roach	N/A	N/A	Confined to the Gualala River and its tributaries.	Warm water adapted.	None. Outside of habitat range.	N/A
Fish	*Oncorhynchus kisutch* pop. 4	coho salmon - central California coast ESU	E	E	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.	None. No suitable habitat is present.	No effect
Fish	*Oncorhynchus mykiss irideus* pop. 49	steelhead - northern California DPS winter-run	T	N/A	Naturally spawning population of the ocean-maturing winter-run ecotype. From Redwood Creek watershed south to and inclusive of Gualala River watershed. Distribution throughout range.	Adults require high flows of 18-20 cm for passage and loose gravels at pool tails for redd construction. Juveniles favor areas with cool (10-17 C), clear, fast-flowing riffles, ample riparian cover, undercut banks and diverse prey.	None. No suitable habitat is present.	No effect
Fish	*Oncorhynchus tshawytscha* pop. 17	chinook salmon - California coastal ESU	T	N/A	Federal listing refers to wild spawned, coastal, spring and fall runs between Redwood Cr, Humboldt Co and Russian River, Sonoma Co.	N/A	None. No suitable habitat is present.	No effect
Mollusks	*Haliotis cracherodii*	black abalone	E	N/A	Mid to low rocky intertidal areas.	N/A	None. No suitable habitat is present.	No effect
Insects	*Bombus caliginosus*	obscure bumble bee	N/A	N/A	Coastal areas from Santa Barbara County north to Washington state.	Food plant genera include *Baccharis, Cirsium, Lupinus, Lotus, Grindelia* and *Phacelia*.	Low. There are 2 historic CNDDB occurrences within 2 miles of the BSA.	N/A
Insects	*Danaus plexippus plexippus* pop. 1	monarch - California overwintering population	C	N/A	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low. No known roosting sites present in BSA.	No effect
Insects	*Plebejus anna lotis*	lotis blue butterfly	E	N/A	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*.	None. No suitable habitat is present.	N/A
Insects	*Speyeria zerene behrensii*	Behren's silverspot butterfly	E	N/A	Restricted to the Pacific side of the Coast Ranges, from Point Arena to Cape Mendocino, Mendocino Co.	Inhabits coastal terrace prairie habitat. Foodplant is *Viola* sp.	Low. No record of *Viola* spp. within BSA.	May affect, not likely to adversely affect

Notes:

[a] USFWS designations are as follows:

E = Endangered (any species in danger of extinction throughout all or a significant portion of its range)
T = Threatened (any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range)
PT = Proposed Threatened
C = Candidate (any species that is a candidate for federal listing)

[b] CDFW designations are as follows:

SSC = Species of Special Concern
FP = Fully Protected
E = Endangered (any species at risk of becoming extinct in all or a significant portion of its range)

T = Threatened (any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range)
DPS = Distinct Population Segment
ESU = Evolutionarily Significant Unit

N/A = not applicable

Sources: CDFW 2024; NMFS 2024; USFWS 2024a

Appendix E 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
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO_2	carbon dioxide
CRLF	California red-legged frog
CSP	corrugated steel pipe
CSPA	corrugated steel pipe arch
CULT	cultural

Acronym	Definition
DPS	distinct population segment
ESHA	environmentally sensitive habitat area
EIR	environmental impact report
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FYLF	foothill yellow-legged frog
GHG	greenhouse gas
LCP	Local Coastal Program
MAMU	marbled murrelet
MTC	Metropolitan Transportation Commission
NAHC	Native American Heritage Commission
NES	Natural Environment Study
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NSO	northern spotted owl
PM	post mile
ROW	right of way
RSP	rock slope protection
RWQCB	Regional Water Quality Control Board
SCTA	Sonoma County Transportation Authority
SHOPP	State Highway Operation and Protection Program

Acronym	Definition
SON	Sonoma County
SR	State Route
SSC	species of special concern
TMP	Traffic Management Plan
USACE	U.S. Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VIA	visual impact assessment
WEF	wildlife exclusion fencing
WPT	Western pond turtle
WQ	water quality

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