Marin State Route 1 Capital Preventive Maintenance Project

MARIN COUNTY, CALIFORNIA
DISTRICT 4 – MRN – 1 (PM 22.8/33.0; 45.0/50.5)
04-1J960/0414000403

Initial Study with Proposed Mitigated Negative Declaration



Prepared by the
State of California, Department of Transportation

January 2020

General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Mitigated Negative Declaration (IS/MND) for the proposed Marin State Route 1 (SR 1) Capital Preventive Maintenance (CAPM) Project, Marin County, California, from post miles (PMs) 22.8 to 33.0 and from 45.0 to 50.5 (Project) (see Figure 1, Regional Vicinity). The Project includes upgrades to existing SR 1 infrastructure, including pavement rehabilitation, curb ramp upgrades in the communities of Point Reyes Station and Tomales (to meet American with Disabilities Act [ADA] standards), replacement of guardrails and crash cushions, upgrading drainage inlets, and replacement of aging culverts. The Project would also include improvements to crosswalks and signage in Point Reyes Station, and improvements to sidewalks in the town of Tomales. The Project would require temporary construction easements outside of Caltrans rights of way in the towns of Point Reyes Station and Tomales. Additional Project information is provided in Chapter 2.

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 the proposed Project features, avoidance and minimization measures, and mitigation measures.

What you should do:

- Please read this document.

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 https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/sr1-marin-capital-preventive-maintenance. Additionally, the document will be made available at the following two locations in the vicinity of the proposed Project:

Point Reyes Station Library
11435 CA-1
Point Reyes Station, CA 94956

United States Post Office in Tomales
27005 CA-1
Tomales, CA 94971

- Attend the public meeting: Wednesday March 11, 2020, 6:00 – 7:30 pm, at West Marin School, 11550 SR 1, Point Reyes Station, CA 94956.
- We would like to hear what you think. Send comments by the March 24, 2020 deadline to:

  Caltrans, District 4
  ATTN: Arnica MacCarthy, Senior Environmental Planner
  P.O. Box 23660,
  Oakland, CA 94623-0660

  Or Arnica.MacCarthy@dot.ca.gov

What happens next:

Per CEQA Section 15073, Caltrans will circulate the IS/MND for review for 30 days. 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 will respond to the comments after the 30-day public review period.

After comments have been received from the public and reviewing agencies, Caltrans may: (1) grant environmental approval to the proposed Project, (2) conduct additional environmental studies, or (3) abandon the Project. If the Project is granted environmental approval and funding is obtained, Caltrans could design and construct all or part of the Project.

Alternative Formats:

For individuals with sensory disabilities, the document can be made available in Braille, in large print, on audiocassette, or on computer disk by writing to the above address or email or by calling **California Relay Service (800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.

An ADA-compliant electronic copy of this document is available to download at: https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/sr1-marin-capital-preventive-maintenance.

Initial Study with Proposed Mitigated Negative Declaration

04-MRN-001	22.8/33.0; 45.0/50.5	04-1J960
Dist. – Co. – Rte.	PM	E.A.

Project title:	Marin State Route 1 Capital Preventive Maintenance Project
Lead agency name and address:	California Department of Transportation 111 Grand Avenue, Oakland, CA 94612
Contact person and phone number:	Arnica MacCarthy, Senior Environmental Planner (510) 286-7195
Project location:	Marin County, California
General plan description:	Highway
Zoning:	Transportation Corridor
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements); CEQA Responsible Agencies are denoted with an asterisk (*):	• 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 * • Section 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife* • California Transportation Commission • U.S. Fish and Wildlife Service • California Coastal Commission State Coastal Development Permit* • Marin County Local Coastal Development Permit*

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 **https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs**.

Stefan Galvez-Abadia
Caltrans District 4, District Division Chief
Division of Environmental Planning and Engineering

01/17/2020
Date

To obtain a copy in Braille, in large print, on computer disk, or on audiocassette, please contact: Department of Transportation, Attn: Arnica MacCarthy, Senior Environmental Planner, Office of Environmental Analysis, 111 Grand Avenue, MS 8-B, Oakland CA 94612: (510) 286-7195 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

Proposed Mitigated Negative Declaration

Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Mitigated Negative Declaration (IS/MND) for the proposed Marin State Route 1 Capital Preventive Maintenance (CAPM) Project, Marin County, California, from post miles (PMs) 22.8 to 33.0; and from 45.0 to 50.5 (Project) (see Figure 1, Project Vicinity). The Project includes upgrades to existing State Route 1 infrastructure, including pavement rehabilitation, curb ramp upgrades in the communities of Point Reyes Station and Tomales (to meet American with Disabilities Act [ADA] standards), replacement of guardrails and crash cushions, upgrading drainage inlets, and replacement of aging culverts. The Project would also include improvements to crosswalks and signage in Point Reyes Station, and improvements to sidewalks in the town of Tomales. The Project would require temporary construction easements outside of Caltrans rights of way at each of eight culverts and at the locations of the curb ramp upgrades in the towns of Point Reyes Station and Tomales. Additional Project information is provided in Chapter 2.

Determination

This Proposed Mitigated Negative Declaration is included to notify the public and reviewing agencies that Caltrans intends to adopt a Mitigated Negative Declaration for this Project. This Mitigated Negative Declaration is subject to change based on comments received by the public and reviewing agencies.

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

The proposed Project would have no impact on land use and planning, mineral resources, population and housing, public services, recreation, or tribal cultural resources.

The proposed Project would have less than significant impacts on aesthetics, agriculture and forest resources, air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous waste, hydrology and water quality, noise, transportation and traffic, utilities and service systems, and wildfire.

DRAFT

With mitigation incorporated, the proposed Project would have a less than significant impact on biological resources. The mitigation measures are detailed as follows:

- **Mitigation Measure BIO-1: Riparian Tree Replacement.** Riparian trees that are removed as a result of this Project will be replanted onsite, at a ratio of 3:1, upon completion of Project construction.
- **Mitigation Measure BIO-2: Wetlands and Waters Restoration.** Mitigation for temporary impacts to wetlands and waters within the California Coastal Zone will be accomplished through onsite restoration, upon completion of Project construction.

Stefan Galvez-Abadia
District Division Chief, Division of Environmental Planning and Engineering
District 4-California Department of Transportation

01/17/2020
Date

DRAFT

Table of Contents

General Information about this Document iii
Initial Study with Proposed Mitigated Negative Declaration v
Proposed Mitigated Negative Declaration vii
Chapter 1 Proposed Project 1-1
1.1 Introduction 1-1
1.2 Purpose and Need 1-1
Chapter 2 Project Description 2-1
2.1 Introduction 2-1
2.2 Project Components Common to the Southern and Northern Portions 2-1
2.2.1 Culvert Replacements 2-1
2.2.2 Roadways, Shoulders and Guardrails 2-2
2.2.3 Stormwater Treatment Areas 2-2
2.3 Southern Portion 2-3
2.3.1 Culverts 2-3
2.3.2 Curb Ramps and Sidewalks 2-3
2.3.3 Bicycle Safety Widening 2-4
2.3.4 Pedestrian Improvements 2-4
2.3.5 Dikes 2-5
2.4 Northern Portion 2-5
2.4.1 Culverts 2-5
2.4.2 Curb Ramps and Sidewalks 2-6
2.5 Construction Methodology 2-6
2.5.1 Construction Staging and Traffic Management 2-6
2.5.2 Utility Relocation 2-7
2.5.3 Construction Equipment 2-7
2.5.4 Construction Schedule 2-7
2.6 Right of Way Requirements 2-7
2.7 Project Features 2-8
2.8 Permits and Approvals Needed 2-8
Chapter 3 California Environmental Quality Act Evaluation 3-1
A. Environmental Factors Potentially Affected 3-1
B. Determination 3-2
Aesthetics 3-4
Agriculture and Forest Resources 3-8
Air Quality 3-18
Biological Resources 3-20
Cultural Resources 3-39
Energy 3-54
Geology and Soils 3-55
Greenhouse Gas Emissions 3-57
Hazards and Hazardous Materials 3-59
Hydrology and Water Quality 3-62
Land Use and Planning 3-69
Mineral Resources 3-74
Noise 3-75
Population and Housing 3-79
Public Services 3-80

Recreation 3-81
Transportation and Traffic 3-82
Tribal Cultural Resources 3-86
Utilities and Service Systems 3-87
Wildfire 3-89
Mandatory Findings of Significance 3-93
Chapter 4 Comments and Coordination 4-1
4.1 Community Outreach 4-1
4.2 Consultation and Coordination with Public Agencies 4-1
Chapter 5 List of Preparers 5-1
Chapter 6 Distribution List 6-1

List of Tables

Table 2-1 Culvert Replacements in the Southern Portion 2-3
Table 2-2 Bicycle Safety Widening Areas in the Southern Portion 2-4
Table 2-3 Culvert Replacements in the Northern Portion 2-5
Table 2-4 Required Permits 2-8
Table 3-1 Construction-related GHG Emissions 3-58
Table 3-2 Key Provisions of the California Coastal Act 3-71
Table 3-3 Key Provisions of the Marin County Local Coastal Program 3-72
Table 3-4 SHOPP Program Projects along SR 1 in Proposed Project Vicinity 3-94
Table 4-1 Agency Coordination Meetings and Contacts 4-1
Table 5-1 List of Preparers and Reviewers 5-1

List of Figures

Figure 1 Regional Vicinity Map 1-3
Figure FMMP-1 Impacts to Important Farmlands and Williamson Act Parcels 3-9
Figure FMMP-2 Impacts to Important Farmlands and Williamson Act Parcels 3-10
Figure FMMP-3 Impacts to Important Farmlands and Williamson Act Parcels 3-11
Figure FMMP-4 Impacts to Important Farmlands and Williamson Act Parcels 3-12
Figure FMMP-5 Impacts to Important Farmlands and Williamson Act Parcels 3-13
Figure FMMP-6 Impacts to Important Farmlands and Williamson Act Parcels 3-14
Figure FMMP-7 Impacts to Important Farmlands and Williamson Act Parcels 3-15
Figure FMMP-8 Impacts to Important Farmlands and Williamson Act Parcels 3-16
Figure CULT-1 Impacts to Section 4(f) Resources: Historic Sites 3-41
Figure CULT-2 Impacts to Section 4(f) Resources: Historic Sites 3-42
Figure CULT-3 Impacts to Section 4(f) Resources: Historic Sites 3-43
Figure CULT-4 Impacts to Section 4(f) Resources: Historic Sites 3-44
Figure CULT-5 Impacts to Section 4(f) Resources: Historic Sites 3-45
Figure CULT-6 Impacts to Section 4(f) Resources: Historic Sites 3-46
Figure CULT-7 Impacts to Section 4(f) Resources: Historic Sites 3-47
Figure CULT-8 Impacts to Section 4(f) Resources: Historic Sites 3-48
Figure CULT-9 Impacts to Section 4(f) Resources: Historic Sites 3-49

Figure CULT-10 Impacts to Section 4(f) Resources: Historic Sites..... 3-50
Figure CULT-11 Impacts to Section 4(f) Resources: Historic Sites..... 3-51
Figure CULT-12 Impacts to Section 4(f) Resources: Historic Sites..... 3-52
Figure FIRE-1 Fire Hazard Severity Zones..... 3-91
Figure FIRE-2 Fire Hazard Severity Zones..... 3-92

List of Appendices

Appendix A Project Component Figures
Appendix B Title VI Policy Statement
Appendix C Summary of Project Features and Avoidance and Minimization Measures
Appendix D List of Acronyms
Appendix E List of Technical Studies and References

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 Marin State Route (SR) 1 Capital Preventive Maintenance (CAPM) Project.

The proposed Project is located in Marin County, California. The Project proposes to repair 27.8 noncontinuous miles of SR 1, and is divided into two portions. The southern portion is located between post miles (PMs) 22.8 and 33.0. The northern portion is located between PM 45.0 and PM 50.5 (Figure 1). The southern portion spans from Five Brooks to north of Point Reyes Station in unincorporated Marin County. The northern portion spans from the town of Tomales to the Marin-Sonoma County line. The Project includes upgrades to existing SR 1 infrastructure, including pavement rehabilitation, curb ramp upgrades in the communities of Point Reyes Station and Tomales (to meet American with Disabilities Act [ADA] standards), replacement of guardrails and crash cushions, upgrading of drainage inlets, and replacement of aging culverts. The Project would also include improvements to crosswalks and signage in Point Reyes Station, and improvements to sidewalks in the town of Tomales. Additional Project information is in Chapter 2. Figures showing the location of Project components discussed above are included in Appendix A.

This Project is funded by the State Highway Operation and Protection Program (SHOPP) 201.121, under the Capital Preventive Maintenance Program. The SHOPP Program is the State's "fix-it-first" program that funds the repair and preservation of the State Highway System, safety improvements, and some highway operational improvements. The estimated cost for the Project is $27 million.

1.2 Purpose and Need

The purpose of this Project is to preserve and extend the life of the existing pavement on portions of SR 1 in Marin County. Because of the newly implemented asset management guidelines in the SHOPP program, this Project includes upgrades to existing Caltrans facilities (multi-assets) that also satisfy the requirements of Streets & Highways Code Section 164.6, Senate Bill 486, and Executive Order 30-15, which provide for consideration of State Highway System Management Plans, analysis and evaluation for establishment of guidelines for updates to the California Transportation Plan, and for evaluating significance of a project's greenhouse gas (GHG) emissions.

Asset management activities for this Project include pavement rehabilitation, curb ramp upgrades in the communities of Point Reyes Station and Tomales (to meet ADA standards), replacement of guardrails and crash cushions, upgrading of drainage inlets, replacement of asphalt concrete (AC) dikes, and replacing aging culverts. Furthermore, 4-foot-wide shoulder spot-widening for bicycle safety would be included in this Project.

The Project need is to repair and upgrade SR 1 facilities to meet current Caltrans Standard Plans 2018 (Caltrans 2018a) and comply with *Design Information Bulletin 81: Capital Preventative Maintenance (CAPM) Guidelines* (Caltrans 2007). The pavement condition survey (PCS) for the sections of SR 1 within the Project limits has overall pavement condition survey/pavement management system priority numbers 4 to 6[1] based on field observations, characterized by having pavement distress and declining pavement condition. Priority numbers are used to evaluate pavement conditions based on a combination of ride quality, structural condition, and maintenance service level, which is based on functions of the route and the volume of traffic it serves.

In the southern portion of the Project, the majority of the pavement between PMs 22.8 to 28.4 is severely distressed, including alligator cracking within the majority of the pavement between PMs 22.8 and 26.5. Between PMs 26.5 and 28.4, significant block cracks are observable, most of which are already filled in. Existing concrete slabs that underly the AC surface also show severe block cracking. Both issues would be addressed by installing new AC roadway surface. Between PMs 28.4 and 31.2, relatively newer looking surface and a few long asphalt patches are present, with areas outside of the patches showing significant distress.

In the northern portion of the Project, existing pavement surface is generally in fair to poor condition, with severe distress between PMs 46.0 to 48.8. Between PMs 48.8 and 50.5, pavement contains long patches on the pavement with surface distress outside of the patches.

[1] Projects with a PCS/pavement management system priority number of 1 and 2 indicate a poor ride with major distress; numbers 3 and 4 indicate a poor ride with minor distress; and numbers 5 and 6 indicate an acceptable ride with no distress.

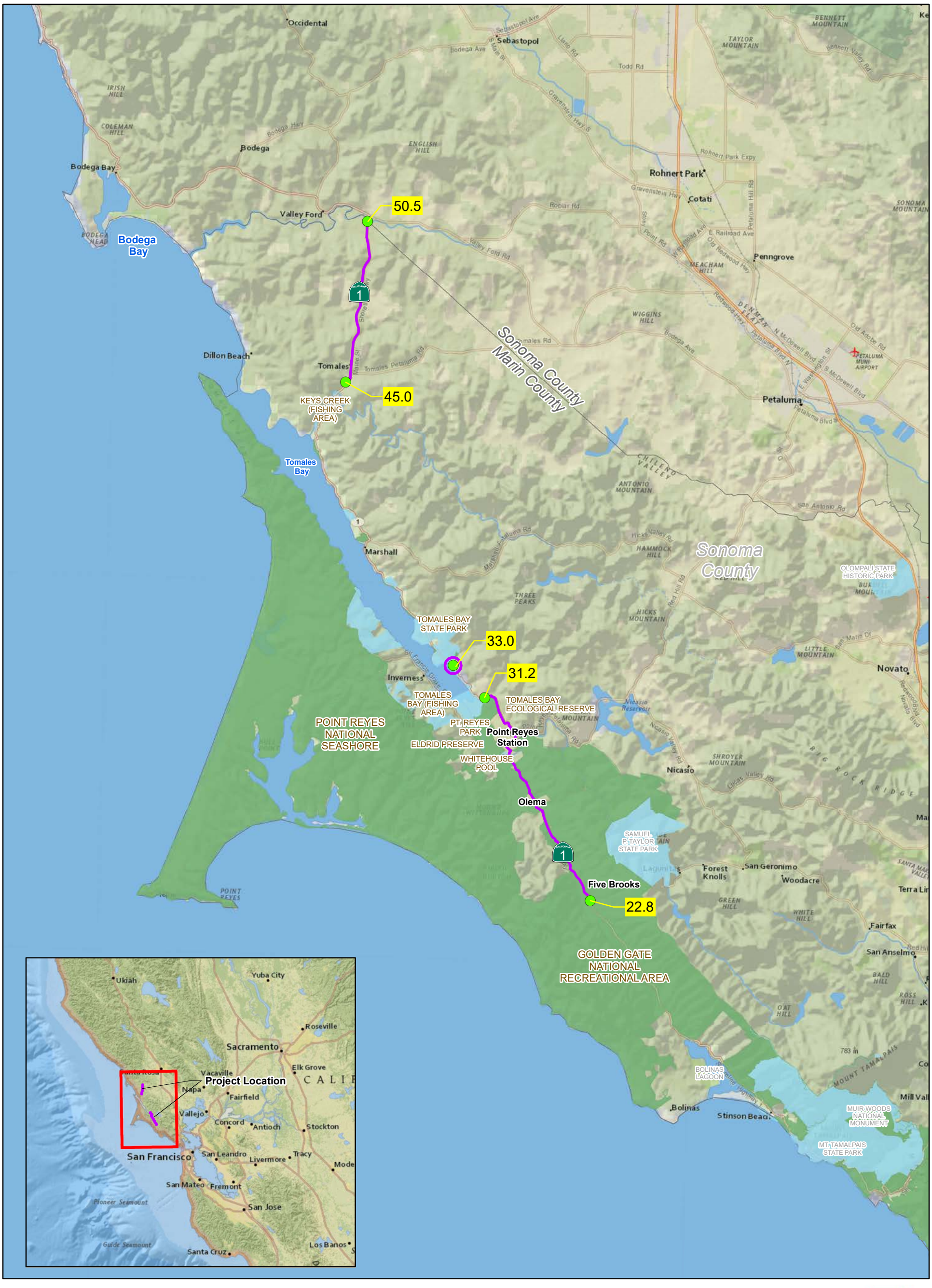


FIGURE 1
Regional Vicinity Map
State Route 1 Capital Preventive Maintenance Project (CAPM)
EA 04-1J960, 04-MRN-1-Post Mile 22.8/33.0, 45.0/50.5
Marin County, California

Chapter 2 Project Description

2.1 Introduction

This Project proposes to repair two portions of SR 1 in Marin County. The southern portion is located between PMs 22.8 and 33.0. The northern portion is located between PMs 45.0 to 50.5.

Repair of the roadway would be completed by cold planing the existing surface and replacing it with AC along the entirety of SR 1 within both portions. Rumble/mumble strips would be replaced in kind. Shoulder backing would be placed within the right of way (ROW), 1 to 2 feet out where needed, to eliminate any dropoffs from the edge of pavement. The maximum slope of shoulder backing would be 4:1. Existing shoulders at certain locations would be paved.

A total of 16 existing curb ramps at intersections and crosswalks along SR 1 would be upgraded to meet ADA requirements. Approximately 13 road signs would be relocated and eight corrugated steel pipe (CSP) culverts would be replaced. Guardrails and AC dikes would be replaced to meet the current Highway Design Manual standards (Caltrans 2018b). Approximately 2.62 acres of stormwater treatment best management practices (BMPs) would be incorporated into this Project.

Figures showing the Project components and work areas are included in Appendix A. Project limits include the Project components, as well as the SR 1 roadway between PMs 22.8 to 31.2 and PMs 45.0 to 50.5.

2.2 Project Components Common to the Southern and Northern Portions

This section discusses Project components that would apply to both the southern and northern portions of the Project.

2.2.1 Culvert Replacements

Eight CSP culverts would be replaced as part of the Project. Replacement of each culvert would require saw-cutting across the roadway, removing the original culvert, and installing the new culvert with concrete backfill. Sediment removed from the culvert locations during construction would be either reused within the Project limits or properly disposed of offsite. At each culvert location, headwalls may be replaced and temporary creek diversions may be required during construction. The temporary

creek diversions would be finalized during later Project phases prior to construction. Locations of culvert replacements in the southern and northern portions are discussed in Sections 2.3.1 and 2.4.1.

2.2.2 Roadways, Shoulders and Guardrails

Repairing the roadway and shoulders may involve grinding (to a maximum depth of 6 inches) the existing pavement and overlaying it with hot-mix asphalt and paving fabric. SR 1 repairs would also include installing shoulder backing 1 to 2 feet out, where needed to eliminate the dropoffs from the edge of pavement.

The existing metal beam guard railing would be replaced with the current standard Midwest Guardrail System (MGS). Replacement of the existing guardrails would involve use of an auger for boring new post holes to a maximum depth of 6 feet. The new MGS would be silver in color, approximately 31 inches above the ground. This work may require some removal of vegetation and tree trimming.

All existing striping, pavement markers, and pavement markings would be removed during pavement resurfacing, and be replaced. All permanent stripes would be thermoplastic with high-performance glass beads.

The location of roadway, shoulder, and guardrail improvements are shown in Appendix A.

2.2.3 Stormwater Treatment Areas

This Project would construct stormwater treatment BMPs to infiltrate runoff from 2.62 acres of net increase of impervious area resulting from this Project's construction activities and those of two prior projects (Marin 1 Mumble Strip Project and Lagunitas Creek Bridge Project). This Project would create 0.92 acre of net new impervious area. In addition, this Project would meet additional requirements resulting from the San Francisco Bay Regional Water Quality Control Board (RWQCB) Section 401 certification from a prior Caltrans project (Marin 1 Mumble Strip Project) that requires Caltrans to provide stormwater treatment BMPs to infiltrate runoff from 1.7 acres of impervious area. Because there is a significant time difference from the end of construction of the prior Caltrans project and the construction of stormwater treatment BMPs in this Project, Caltrans may be required to provide BMPs to treat up to 50 percent more impervious area. The location of stormwater treatment BMPs would be determined during later Project phases.

2.3 Southern Portion

This section describes the proposed repairs or upgrades to SR 1 within the southern portion of the Project area.

2.3.1 Culverts

Table 2-1 shows the four culverts in the southern portion that would be replaced in-kind or with a larger-diameter culvert in the same location.

Figures showing the culvert replacements in the southern portion are included in Appendix A (see Maps 05, 24, 25, and 28).

Table 2-1 Culvert Replacements in the Southern Portion

Post Mile (Appendix A)	Existing Facility	Culvert Deficiency	Proposed Facility	Anticipated Dimensions of Excavation
24.16 (Map 05)	39 x 30-inch CSPA	Broken and vertically displaced in middle; poorly aligned with upstream drainage; undersized	5' x 3' RCB and a 48" plastic pipe with headwall and 2 new inlets	7 feet deep 6 feet wide
30.51 (Map 24)	18-inch CSP	Hole in invert; failed downstream; running water; condition beginning to fail	18" plastic pipe with concrete backfill	4 feet deep 3 feet wide
30.66 (Map 25)	12-inch CSP	Holes in invert; condition beginning to fail	21" x 15" CSPA with concrete backfill	4 feet deep 2 feet wide
32.95 (Map 28)	18-inch CSP	Pipe on skew; big vertical drop at downstream; condition failed	18" plastic pipe with concrete backfill	4 feet deep 3 feet wide

Notes:

CSP = corrugated steel pipe
CSPA = corrugated steel pipe arch
RCB = reinforced concrete box

2.3.2 Curb Ramps and Sidewalks

Twelve curb ramps in the town of Point Reyes Station would be upgraded to meet current ADA standards (see Appendix A, Maps 20, 21, and 22). The curb ramps would be upgraded by providing a detectable surface and adjustment to the width, length, and slopes of the ramps. The new curb ramps would most likely have a larger footprint than existing curb ramps. In addition, the Project would repair approximately 950 feet of AC path (PMs 28.92 to 29.1) and approximately 227 feet of existing sidewalk (PMs 28.735 to 28.76 and 28.832 to 28.85). Sidewalks would be

ADA compliant and would a minimum of 5 feet wide. (see Appendix A, Maps 21, and 22). Replacement of the existing parking striping along SR 1 in Point Reyes Station would be needed at the location of the curb ramp upgrades. One or more existing parking spaces may be eliminated to accommodate the larger curb ramp footprints. For example, one street parking space at the corner of SR 1 and 3rd Street could be removed to incorporate complete street components (including, street drainage systems, utilities, traffic signs, and pedestrian signs).

2.3.3 Bicycle Safety Widening

Table 2-2 shows the approximate location of 13 noncontinuous shoulder stretches, totaling approximately 2,815 linear feet, which would be paved to improve bicycle safety in the southern portion. The limit of work areas for all of these locations would be within areas that currently consist of gravel shoulders or driveways.

Table 2-2 Bicycle Safety Widening Areas in the Southern Portion

Approximate Post Mile	Length (ft)	North-bound Shoulder	South-bound Shoulder	Curve	Existing Shoulder
23.00	160		X	right	Gravel
24.20	245	X		left	Gravel
24.67	135	X		left	Gravel
24.70	170	X		left	Gravel
25.11	135	X		left	Gravel
25.05	100		X	straight	Gravel
25.50	500	X		straight	Gravel
25.80	380		X	straight	Gravel
26.00	140		X	straight	Gravel
26.10	145		X	left	Gravel
26.75	395	X		left	Gravel
27.60	150	X		straight	Driveway
27.16	160		X	right	Gravel

2.3.4 Pedestrian Improvements

Improvements to pedestrian facilities in Point Reyes Station would include painting high-visibility crosswalks at the corners of 4th Street and SR 1 (in two locations), at the corners of Mesa Road and SR 1 (in two locations), and at SR 1 across from West Marin Elementary School. The Project would remove obsolete signs and replace them with double-walled pedestrian signs on either side of each marked crosswalk at the intersections of 4th Street and SR 1, and Mesa Road and SR 1.

A rectangular rapid flashing beacon would be installed at West Marin Elementary School at SR 1 to replace the existing flashing beacon. AC paving would occur on the southbound lane of SR 1 at the location of the crosswalk. Pedestrian improvements are shown in Appendix A, Maps 20, 21, and 22.

2.3.5 Dikes

Dikes would be replaced where needed to meet current standards in the Highway Design Manual (Caltrans 2018b). This work would not include excavation, but equipment may be needed to be partially off of the pavement (but immediately adjacent to the roadway). Current locations include PM 26.5 to 26.64 (530 feet), PM 26.73 to 26.78 (235 feet), PM 26.99 to 27.09 (560 feet), PM 27.16 to 27.18 (115 feet), and PM 27.49 to 27.65 (850 feet) (see Appendix A, Maps 12 through 17).

2.4 Northern Portion

This section describes the proposed repairs or upgrades to SR 1 within the northern portion of the Project area.

2.4.1 Culverts

The project proposes to replace four culverts in the northern portion of the Project area. Table 2-3 shows the that Culverts would be replaced in-kind or with a larger-diameter culvert in the same location. See Table 2-3 below.

Table 2-3 Culvert Replacements in the Northern Portion

Post Mile (Appendix A)	Existing Facility (inches)	Culvert Deficiency	Proposed Facility	Anticipated Dimensions of Excavation
49.21 (Map 39)	18” CSP	Pipe on a skew; condition failed	18” plastic pipe with concrete backfill	4 feet deep 3 feet wide
49.50 (Map 40)	30” CSP with cracked headwall	Running water; Pipe is on a slight skew; cracked headwall; condition failed	30” plastic pipe with concrete backfill and headwall Shoring may be required if the culvert is too deep or too wide	5 feet deep 4 feet wide
49.70 (Map 41)	18” CSP	Pipe is on a skew; condition failed	18” plastic pipe with concrete backfill and “L” headwall	4 feet deep 3 feet wide
49.85 (Map 42)	18” CSP	Pipe is on a skew; pavement failing over pipe; condition failed	18” plastic pipe with concrete backfill	4 feet deep 3 feet wide

2.4.2 Curb Ramps and Sidewalks

Three curb ramps in the Town of Tomales would be replaced in-kind, and one new curb ramp would be constructed (see Appendix A, Map 32). The curb ramps would be upgraded by providing a detectable surface and adjusting the width, length, and slopes of the ramps. The new curb ramps would most likely have a larger footprint than existing curb ramps. Curb ramps would include curb-ramp extensions, if necessary, to provide ADA compliance. The Project would include installation of 196 feet of new sidewalks (PM 45.702 to 45.715 and 45.764 to 45.788) (see Appendix A, Map 32). Sidewalks would be ADA compliant and a minimum of five feet wide. Complete street components (that is, street drainage systems, utilities, traffic signs, and pedestrian signs) may be incorporated.

2.5 Construction Methodology

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

2.5.1 Construction Staging and Traffic Management

Staging for this Project would occur in maintenance vehicle pullouts (MVPs) and bicycle safety widening areas of SR 1 (see Appendix A) within the Project limits.

Culvert replacement and some portions of paving work are likely to be constructed at night, while curb ramps, MGS, dikes, and other Project components are more likely to be constructed during the day. Construction activities such as culvert replacements, may require up to an 8-hour lane closure at spot locations, while Project components such as paving would require temporary one-way traffic control.

During construction, traffic would be detoured in Point Reyes Station to adjacent city streets; however, pedestrian and vehicular access to businesses would be maintained. The proposed detour routes could be revised during later Project stages, prior to construction.

Proposed detours during road closures in Point Reyes Station are shown in Appendix A, and Maps 20 and 21, and summarized below.

- **Stage 0:** The intersection at SR 1 and Mesa Street would be closed to through traffic for construction of curb ramps. The detour would be via B Street and Mesa Street.

- **Stage 1**: SR 1 southbound at 2nd Street would be closed for construction of a curb ramp. Southbound traffic would be detoured via 2nd Street to B Street.

- **Stage 2:** SR 1 southbound between 2nd and 3rd Streets would be closed for construction of curb ramps. Southbound traffic would be detoured through 3rd Street to B Street.

- **Stage 3:** SR 1 southbound between 4th and 3rd Streets would be closed for construction of curb ramps. Southbound traffic would be detoured through 4th Street to B Street.

- **Stage 4:** SR 1 would be closed at the corner of 4th Street for construction of a curb ramp. Southbound traffic would be detoured through 5th Street and B Street.

2.5.2 Utility Relocation

Utility relocation may be required and utility verification is currently in process. If needed, Caltrans would coordinate with the appropriate utility provider during later Project phases.

2.5.3 Construction Equipment

Equipment used for the Project would include, but not be limited to, backhoes, auger, excavator, dozer, grader, saws, paving machine, flatbed truck, compressor, excavators, rollers, water trucks, concrete trucks, dump trucks, compactors, demolition hammers, and hand tools.

2.5.4 Construction Schedule

Construction is anticipated to begin in Spring 2022, and would last up to 10 months (approximately 220 working days). Construction of both portions could occur concurrently over 1 construction season, 7 days a week, with day and nighttime work anticipated. Construction restrictions, such as limiting work within streams and drainages restricted to the dry season (starting June 15 and ending October 31), would be implemented.

2.6 Right of Way Requirements

The proposed Project would require temporary construction easements (TCEs) of approximately 0.17 acre on 13 private properties adjacent to SR 1 within Point Reyes Station and Tomales for construction of the curb ramps. The location of TCEs for curb ramps are shown in Appendix A, Maps 21, 22, and 32.

In addition, the proposed Project, in both the southern and northern portions, would require TCEs of approximately 0.16 acre on 15 private properties, in rural areas

adjacent to SR 1 for construction of the culverts. The location of TCEs for culvert replacements are shown in Appendix A, Maps 5, 24, 25, 28, 39, 40, 41, and 42.

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

2.7 Project Features

Project features, which can include both design elements of the Project and standardized measures (such as BMPs) that are applied to all or most Caltrans projects, and measures included in the Standard Plans and Specifications, or as standard special provisions, are integral to the Project. Such Project features have been considered prior to any significance determinations. These Project features are detailed in Chapter 3 and included in Appendix C.

2.8 Permits and Approvals Needed

Table 2-4 lists the permits, licenses, agreements, and certifications that are anticipated to be required for Project construction.

Table 2-4 Required Permits

Agency	Permit	Permit Status
U.S. Army Corps of Engineers	Section 404 Permit	Application submittal anticipated during later Project phase
State Water Resources Control Board	Section 401 Water Quality Certification	Application submittal anticipated during later Project phase
California Department of Fish and Wildlife	Section 1602 Lake and Streambed Alteration Agreement	Application submittal anticipated during later Project phase
U.S. Fish and Wildlife Service	Biological Opinion	Application submittal anticipated during project approval and environmental document phase
California Coastal Commission	State Coastal Development Permit	Application submittal anticipated during later Project phase
Marin County/ California Coastal Commission	Local Coastal Development Permit with potential for a joint State Coastal Development Permit	Application submittal anticipated during later Project phase

Chapter 3 California Environmental Quality Act Evaluation

The following discussions 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.

A. 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: land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources. The environmental factors checked below would be potentially affected by this Project. Further analysis of these environmental factors is included in the following chapter:

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

B. Determination

On the basis of this initial evaluation:

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

Signature:	**Date:**
Printed Name:	**For:**

CEQA Environmental Checklist

This checklist (presented at the beginning of each resource section below in the form of a table listing the pertinent questions applicable to the resource and four columns of check boxes where the degree of impact is indicated) identifies physical, biological, social, and economic factors that might be affected by the proposed Project. In many cases, background studies performed in connection with the Project indicate that there are no impacts to a particular resource. A “no impact” answer in the last column reflects this determination. The words "significant" and "significance" used throughout the checklist are related to CEQA impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which may include both design elements of this Project and standardized measures (such as BMPs) that are applied to all or most Caltrans projects, and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be integral to the Project and are considered prior to any significance determinations. A list of this Project’s features and avoidance and minimization measures (AMMs) are in Appendix C.

Aesthetics

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

A visual impact assessment (VIA) was completed for the Project (Caltrans 2019a, 2019b). The VIA was prepared in accordance with the guidelines in the Federal Highway Administration's *Visual Impact Assessments for Highway Projects* (FHWA 1981). SR 1 is eligible for State Scenic Highway designation throughout the Project limits; the Project is within the Marin County Coastal Zone.

a, b, c) Less than Significant Impacts

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

The Project corridor occurs along a scenic stretch of SR 1 that is listed as being "Eligible for Designation as a State Scenic Highway." Because the Project scope is limited to upgrading existing infrastructure the Project would not substantially affect a scenic vista, damage scenic resources within a state scenic highway, or degrade the existing visual character or quality of the view. Impacts to scenic characteristics along the Project corridor would be reduced with implementation of AMMs (presented below) that would minimize visual change that could occur as part of the Project.

Visual resource change outside of rural villages would be low, resulting in minimal visual impact with implementation of minimization measures. Visual resource changes that could occur at the location of infrastructure upgrades along the Project corridor would be reduced with implementation of AMMs Aesthetics (AES) -1 through -8. Impacts to scenic characteristics in rural areas would also be reduced with implementation of AMMs that would protect existing trees and vegetation and reestablish disturbed vegetation as discussed in AES-9 through -10.

Specific concerns noted include preservation of rural and historical character, and sidewalks that contain historical elements. For example, communication from representatives of the Tomales Regional History Center noted that the visual character of yellow detectable warning surfaces is at odds with the existing character of the rural village. Areas of concern are Point Reyes Station (PMs 28.6 to 29.0) and Tomales (PMs 45.6 to 45.8). Impacts to scenic and historical characteristics in Point Reyes Station, Olema, and Tomales would be reduced with implementation of AMMs, to include AES-1, which would minimize visual change relative to existing infrastructure by allowing for alternative color selection of pedestrian facilities to include sidewalks and curb ramps.

Temporary visual impacts from construction of the proposed build alternative are not considered to be substantial. Temporary detours between PMs 28.6 and 28.9 would require temporary signage and traffic increases on local streets.

In addition, the Project would not conflict with zoning laws or regulations governing scenic resources. Impacts to scenic resources in the Project corridor would be less than significant.

d) Less than Significant Impact

The Project would not create a new source of substantial light or glare. Day and nighttime construction activities could temporarily add new sources of light and glare for residents, businesses, and local motorists along the Project corridor. These visual impacts would be minimized through implementation of AMM AES-11, thereby reducing the impact to less than significant.

Avoidance and Minimization Measures

AMM AES-1: Design Information Bulletin (DIB) 82-06. DIB 82-06 allows for alternative color selection of suitable contrast with adjacent paving. Select a muted color (such as brick red or brown) with an adequate level of adjacent surface contrast

to ADA-compliant upgrades, while minimizing visual change. Tint concrete paving used for pedestrian facilities (sidewalks and curb ramps) to minimize visual change relative to adjacent existing pavement within the rural villages of Point Reyes Station and Tomales.

AMM AES-2: Conceal Drainage Features. Color drainage features (including associated concrete) to match adjacent earth tones where they are not permanently hidden from view.

AMM AES-3: Selection of Attenuators and Crash Cushions. Select attenuators and crash cushions that are visually consistent with MGS metal railings, to the maximum extent feasible.

AMM AES-4: Aesthetically Treat Concrete Blocks. Aesthetically treat MGS terminal blocks adjacent to existing see-through concrete railings to minimize character change. Locations are: PM 22.8/22.91, PM 23.21/23.34, and PM 28.55.

AMM AES-5: Color Concrete Structures. Color concrete structures to minimize visual dissimilarity when compared to existing concrete barriers and other structures.

AMM AES-6: Minimize Construction Appearance. Minimize appearance of construction equipment and staging area locations to the extent feasible.

AMM AES-7: Culvert Footprints. Minimize culvert footprints.

AMM AES-8: Treatments at MVPs and Turnouts. Use non-pavement treatments at MVPs and turnouts. Per Marin SR 1 Repair Guidelines, paving beyond a 4-foot-wide shoulder should be limited.

AMM AES-9: Revegetation of Disturbed Areas. Revegetate disturbed soils using native plants and plant seeds as appropriate. In Project locations in or adjacent to park lands including, Point Reyes National Seashore, or state parks lands, propagate plants from local plant material and locally collect seeds.

AMM AES-10: Protect Existing Trees. Avoid impacts to existing trees and shrubs, including associated tree roots, where feasible. Caltrans Landscape Architecture and Biological Resources offices will identify specific locations and BMPs during later Project phases and include appropriate information in the plans and specifications.

AMM AES-11: Limit Construction Lighting. Limit construction lighting to the specific areas under construction along the Project corridor, and avoid light trespass with the use of directional lighting, shielding, and other measures as needed.

Agriculture and Forest Resources

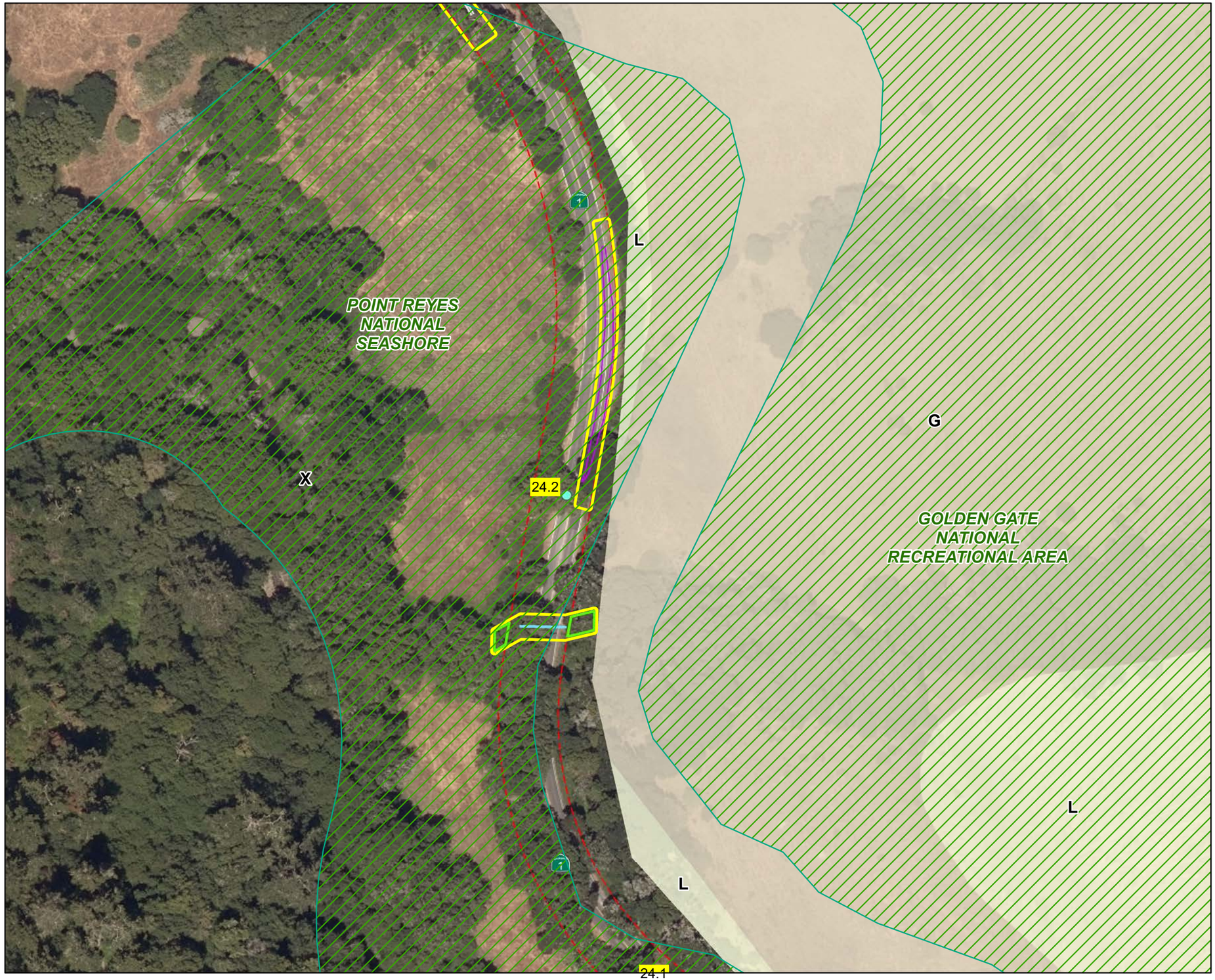
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional 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:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

a) No Impact

Within the Project vicinity, land adjacent to SR 1 includes land designated as "Farmland of Local Importance" by the Farmland Mapping and Monitoring Program (FMMP) (California Department of Conservation 2019). Temporary impacts to approximately 0.149 acre of Farmland of Local Importance would occur at the TCE sites during construction of the culvert replacements. Figures FMMP-1 through -8 show the location of TCEs for the culvert locations, and acreages of Farmland of Local that would be temporarily affected under the proposed Project.

The Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance because no such farmlands are within the Project limits. Therefore, no impact would occur.





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Replace Culvert
- Park Boundary

Marin County Important Farmland 2016

- Grazing Land (G)
- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 Feet N

Caltrans

FMMP-1
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Park Boundary
- Williamson Act Parcels

Impacts to Williamson Act Parcels

- Temporary Construction Easement (0.087 acre)

Marin County Important Farmland 2016

- Grazing Land (G)
- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

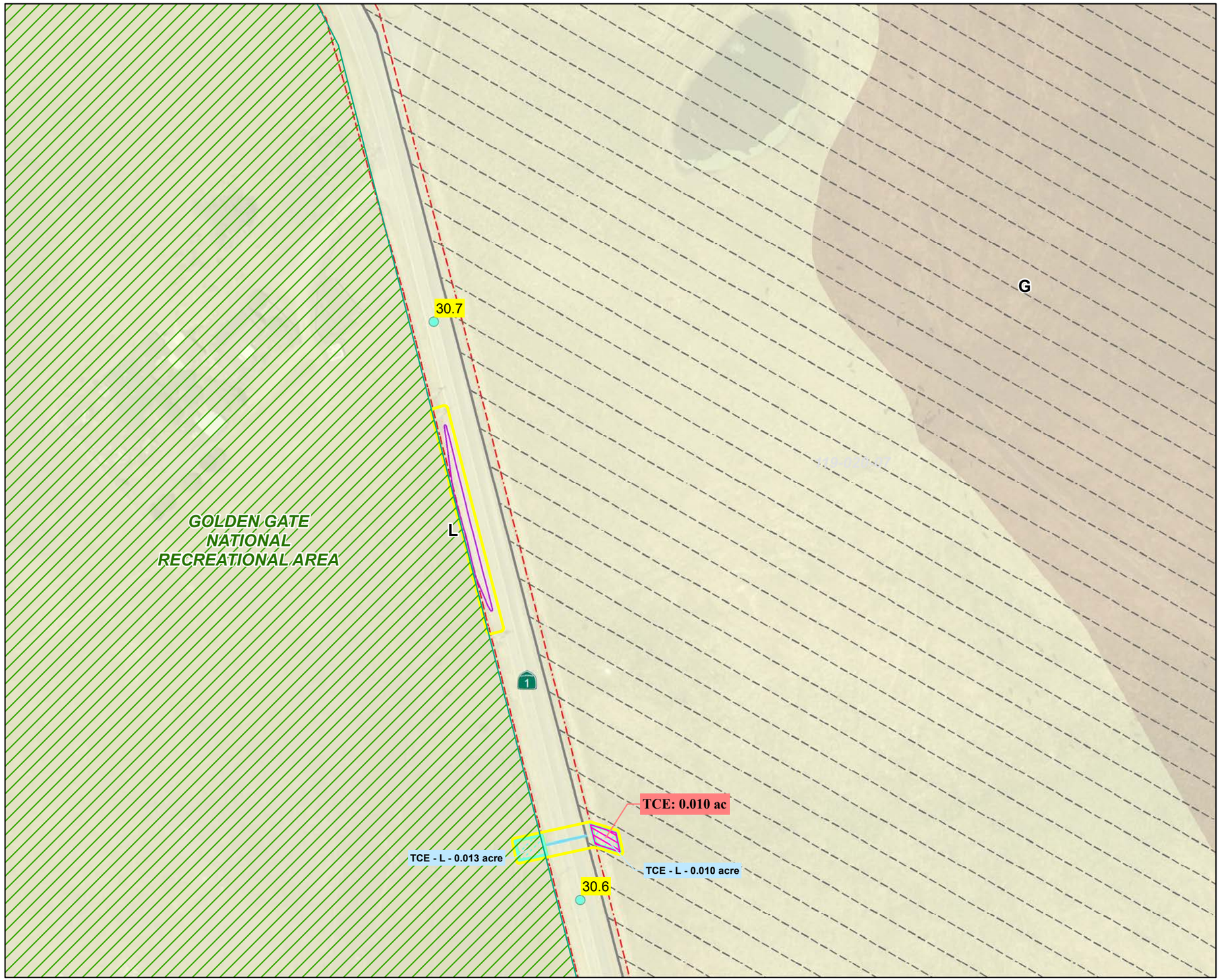
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 N
Feet

Caltrans

FMMP-2
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Park Boundary
- Williamson Act Parcels

Impacts to Williamson Act Parcels

- Temporary Construction Easement (0.087 acre)

Marin County Important Farmland 2016

- Grazing Land (G)
- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 Feet N

Caltrans

FMMP-3
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Park Boundary
- Williamson Act Parcels

Impacts to Williamson Act Parcels

- Temporary Construction Easement (0.087 acre)

Marin County Important Farmland 2016

- Grazing Land (G)
- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 Feet N

Caltrans

FMMP-4
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Park Boundary
- Williamson Act Parcels

Impacts to Williamson Act Parcels

- Temporary Construction Easement (0.087 acre)

Marin County Important Farmland 2016

- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

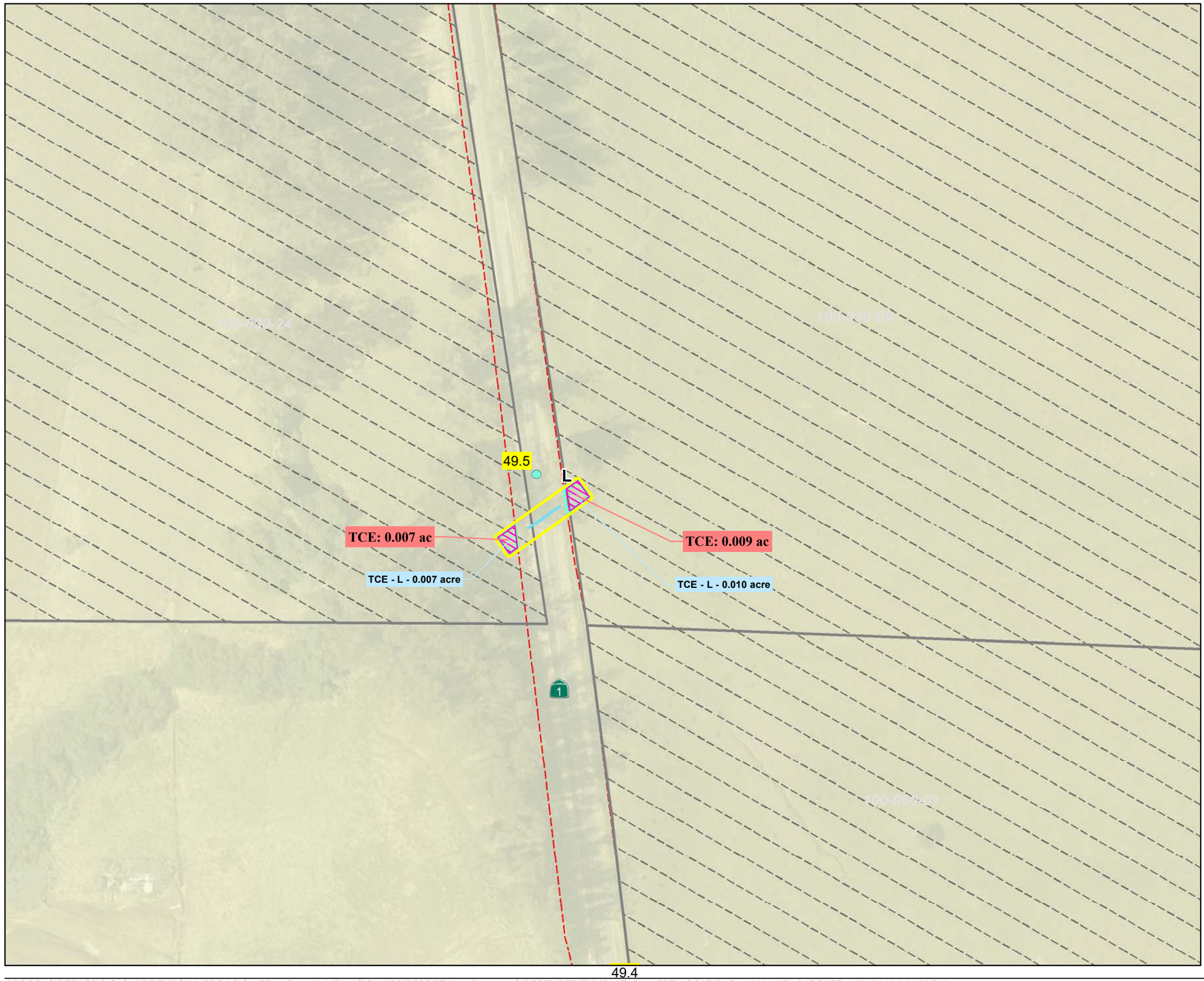
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 Feet N

Caltrans

FMMP-5
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Park Boundary
- Williamson Act Parcels

Impacts to Williamson Act Parcels

- Temporary Construction Easement (0.087 acre)

Marin County Important Farmland 2016

- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

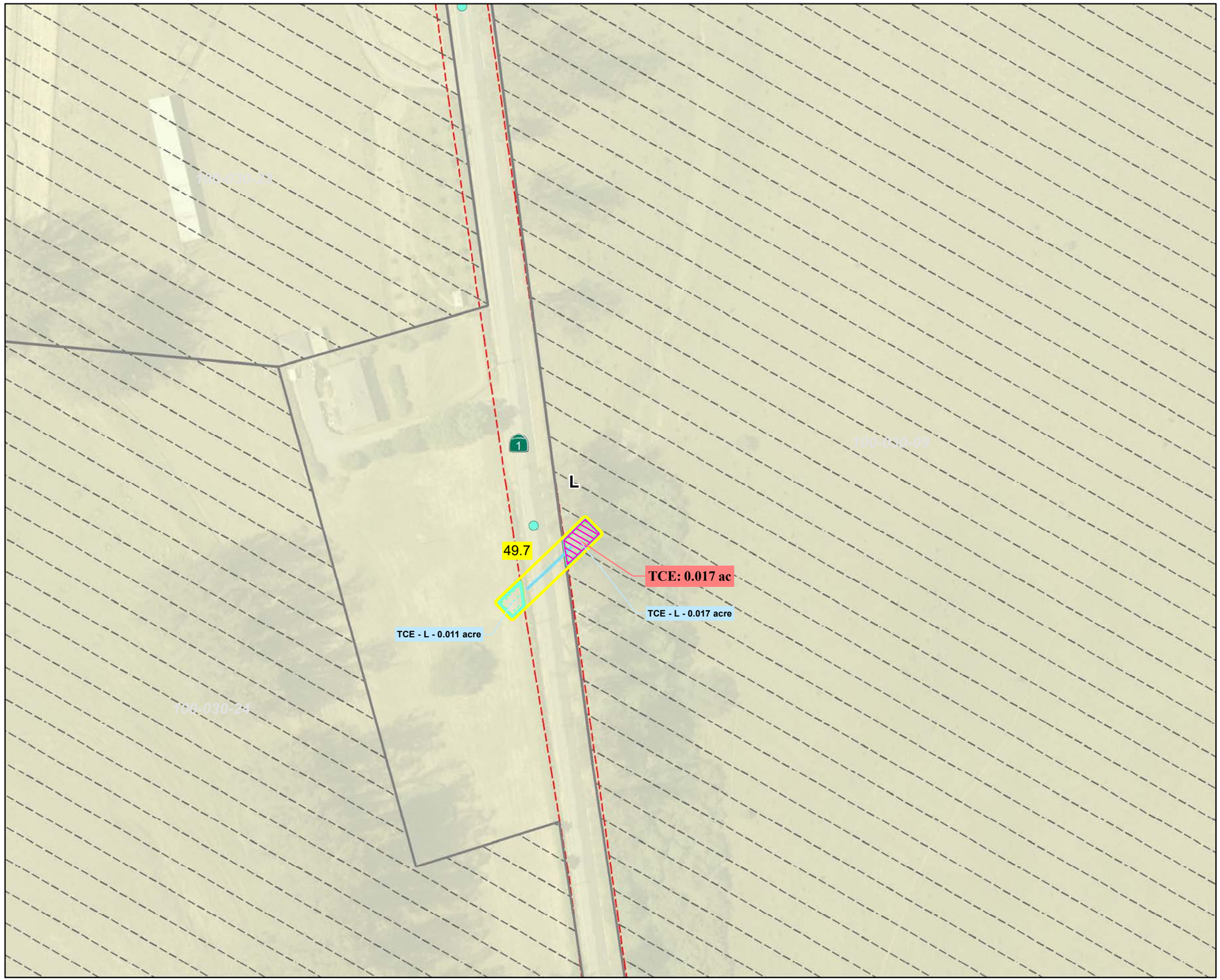
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 Feet N

Caltrans

FMMP-6
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Park Boundary
- Williamson Act Parcels

Impacts to Williamson Act Parcels

- Temporary Construction Easement (0.087 acre)

Marin County Important Farmland 2016

- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 Feet

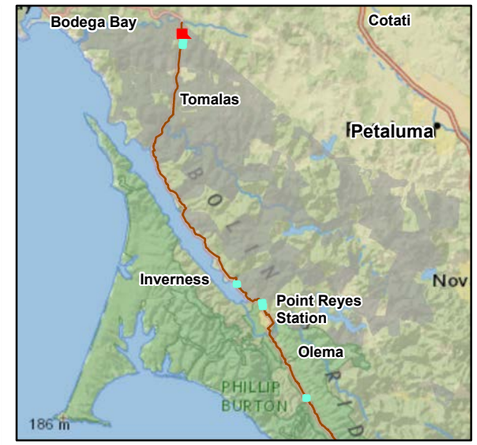
N

Caltrans

FMMP-7
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Park Boundary
- Williamson Act Parcels

Impacts to Williamson Act Parcels

- Temporary Construction Easement (0.087 acre)

Marin County Important Farmland 2016

- Farmland of Local Importance (L)

Impacts to FMMP

- Temporary Construction Easement - L (0.149 acre)

Source:
Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program (FMMP)

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

0 100 N
Feet

Caltrans

FMMP-8
Impacts to Important Farmlands and Williamson Act Parcels

State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California

b) Less than Significant Impact

Approximately 0.087 acre of Williamson Act lands would be temporarily affected during construction of the Project. Figures FMMP-1 through -8 show the location of Williamson Act lands that would be temporarily affected under the proposed Project.

The Project would not conflict with existing zoning for agriculture use or convert Williamson Act lands to non-agricultural uses; therefore, the impact would be less than significant.

c-e) No Impact

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

According to maps prepared pursuant to the FMMP temporary impacts to land designated as Farmland of Local Importance would occur during construction of culvert replacements. However, the Project would not convert farmlands lands to non-agricultural use; therefore, no impact would occur.

Air Quality

III. 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:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

a, d) No Impact

The Project falls under "pavement resurfacing and/or rehabilitation" activities and is therefore exempt from air quality conformity determination under 40 *Code of Federal Regulations* 93.126, Table 2. An air quality study is not required (Caltrans 2018c). Construction activities would not be in conflict with an air quality plan or generate emissions resulting in excessive odors. There would be no impact.

b, c) Less than Significant Impact

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. Construction air pollutants are expected to be minimal to negligible and short term. 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. Project Feature Air Quality (AQ) -1 would help minimize impacts from fugitive dust.

Project Feature

Project Feature AQ-1: Control Measures for Construction Emissions of Fugitive Dust. Dust control measures would be implemented to minimize airborne dust and soil particles generated from construction. For disturbed soil areas, the use of tackifier to control dust emissions would be included in the construction contract. Any

material stockpiles would be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion.

Biological Resources

IV. BIOLOGICAL RESOURCES: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
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?				X

A *Natural Environment Study* (NES) was prepared for the Project to evaluate the effects on flora and fauna within the Project area (Caltrans 2019c). This section summarizes the findings of the study.

The biological study area (BSA) includes the areas surveyed to identify, evaluate, and quantify the biological resources potentially affected by the Project. The BSA consists of approximately 24.16 acres and encompasses the Project footprint.

Within the northern portion of the Project, the habitat consists mainly of grassland and herbaceous vegetation species, with occasional stands of coast live oak (*Quercus agrifolia*) woodland, coyote brush (*Baccharis pilularis*), and thickets of wild rose and blackberry (*Rubus ursinus* and *R. armeniacus*). The grasslands in the region are grazed by livestock (primarily cattle or sheep) or are used for production of crops, such as hay. Many of the grasslands, working ranches, and farms adjacent to the BSA are protected through conservation easements preserving local farming and

agricultural practices. Mature stands of blue gum (*Eucalyptus globulus*) and dense thickets of California blackberry are intermixed with the grasslands in several locations, acting as windbreaks and visual screens adjacent to SR 1, in several locations.

Olema Creek, Keys Creek, and Stemple Creek, as well as Estero de San Antonio cross or are adjacent to the BSA at several locations. Dense thickets of arroyo and red willow (*Salix lasiolepis* and *S. laevigata*) and other riparian species, including white alder (*Alnus rhombifolia*), California bay (*Umbellularia californica*), and blackberry, are adjacent to the creeks.

Seasonal wetlands are next to or within the bed and banks of the creeks and Estero de San Antonio, and alongside SR 1, in roadside ditches and depressional terrain.

The southern portion of the Project is more heavily forested than the northern portion, with dense stands of coast live oak woodland, California bay, blackberry, poison oak (*Toxicodendron diversilobum*), and California hazelnut (*Corylus cornuta subsp. californica*).

Biological Studies

As part of the preliminary technical studies, databases were used to evaluate potential impacts that could occur to sensitive biological resources as a result of the Project. In addition to database queries, various site visits, surveys, and technical studies were conducted in preparing the NES. These included: protocol-level rare plant surveys; habitat assessment for special-status reptiles and amphibians; aquatic resources delineation for potential waters of the United States, including wetlands (note that this delineation covered nine work areas, including the eight proposed culvert replacement work areas); aquatic resources delineation for wetlands and streams subject within the Coastal Zone (this includes 44 work areas that are north of PM 26); and a tree inventory.

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

With implementation of Project features and AMMs identified below, the Project would have a less than significant adverse effect, either directly or through habitat modifications, on any identified candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS), or NOAA Fisheries.

Special-status species potentially present within or adjacent to the BSA are discussed below.

Coast Rockcress: The Coast rockcress (*Arabis blepharophylla*) is listed as rare by the California Native Plant Society (CNPS). On March 19, 2019, approximately 53 coast rockcress plants were observed in the PM 45.02 rare plant study area. The population is approximately 0.3 mile southwest of the junction of SR 1 and Tomales-Petaluma Road. The population was scattered throughout the rocky substrate of a nearly vertical sandstone cliff, in coastal scrub habitat. The coast rockcress population was visually observed as extending beyond the rare plant study area, further up the nearly vertical sandstone cliffs, and to the north and south of the survey area boundary; however, these individuals were not recorded or counted because this location is outside the study area and not accessible.

The population of coast rockcress observed during rare plant surveys is on the opposite side of SR 1 from where project activities would occur; therefore, the population would be avoided during construction. Indirect impacts to coast rockcress and any other special-status plants that are near to, but outside of, the study areas would be avoided through implementation of pre-construction surveys (AMM BIO-1), worker environmental awareness training (AMM BIO-2), the stormwater pollution prevention plan (SWPPP) (Project Feature WQ-1), construction site BMPs (Project Feature WQ-2), delineation of work area boundaries (Project Feature BIO-1), construction site management practices (Project Feature BIO-3), and measures to reduce the spread of invasive species (Project Feature BIO-12).

California Giant Salamander and Western Pond Turtle: The Project would have a less than significant impact to California giant salamander (*Dicamptodon ensatus*) and western pond turtle (*Emys marmorata*). There is a potential for the California giant salamander and western pond turtle to occur onsite at the multiple culvert locations. However, with implementation of preconstruction surveys (AMM BIO-1), worker environmental awareness training (AMM BIO-2), wildlife exclusion fencing (Project Feature BIO-2), and biological construction monitoring (AMM BIO-1), the likelihood of direct impacts to California giant salamanders and western pond turtles, such as injury or mortality from being crushed, is low. If either species is discovered during preconstruction surveys, the individual(s) would be relocated downstream of the work area to appropriate habitat and reported to CDFW.

California Red-Legged Frog: The Project would have a less than significant impact to California red-legged frog (*Rana draytonii*). Suitable upland and dispersal habitat for the California red-legged frog is present at each of the eight culvert replacement locations. Seven of the eight culvert replacement locations include work areas that may serve as seasonal aquatic habitat for adult California red-legged frogs. In addition to adult upland and dispersal habitat, the seasonal plunge pool below the PM 24.16 culvert outlet may provide aquatic habitat suitable for frog breeding and larval survival. This location is also situated in a forested area that could provide suitable shelter and foraging habitat for adult California red-legged frogs. Because of the presence of suitable habitat and nearby California Natural Diversity Database (CNDDB) occurrences, Caltrans has assumed presence of California red-legged frogs for the Project.

Pursuant to Section 7 of the federal Endangered Species Act (FESA), Caltrans has concluded that this Project may affect, and is likely to adversely affect, the California red-legged frog. The implementation of Project features and AMMs would reduce the likelihood that take of California red-legged frogs would occur. However, not all adverse effects and potential for take would be eliminated because disturbance of suitable upland habitat is essential to implementing the proposed Project. The Project would result in direct effects on California red-legged frog upland habitat.

Project activities could also result in the take of California red-legged frogs in the form of harm or harassment. The inadvertent injury and/or mortality of California red-legged frogs could occur if individuals of the species are present in the work areas during construction. Because Project activities would primarily be conducted during the dry season (Project Feature BIO-5), they would not overlap with the California red-legged frog's breeding season. Therefore, this Project is unlikely to result in the take of eggs, larvae, or tadpoles. Harm, harassment, and other direct adverse effects on individuals could result from the capture and relocation of California red-legged frogs that are found during pre-construction and monitoring surveys.

As required under FESA, Caltrans will implement reasonable and prudent measures to minimize and avoid the potential take of the California red-legged frog. The species-specific AMMs for the California red-legged frog include pre-construction California red-legged frog surveys (AMM BIO-3), measures to prevent entrapment (Project Feature BIO-13), and the following of the protocols for California red-legged frog relocation and reporting (AMM BIO-4). These AMMs and wildlife exclusion fencing (Project Feature BIO-2) would minimize the potential adverse effects to

California red-legged frog. The upland dispersal habitat disturbed by construction would be restored (Project Feature BIO-11). No compensatory mitigation for California red-legged frog is proposed as part of this Project.

Northern Spotted Owl: The Project would have a less than significant impact to northern spotted owls (*Strix occidentalis caurina*). According to the California Spotted Owl Viewer Database, the BSA is approximately 200 feet east of the closest northern spotted owl occurrence, near PM 23.2 (CDFW 2019). Northern spotted owl occurrences have only been recorded near the southern portion of the project limits, between PMs 22.8 and 28.5. Field surveys indicate potential suitable foraging habitat in this area.

Pursuant to Section 7 of the FESA, Caltrans has determined that this Project may affect, but is not likely to adversely affect, the northern spotted owl, based on database and literature review, and analysis of effects of construction activities.

Caltrans has determined that the northern spotted owl may occur near the southern portion of the project limits. However, the action magnitude is relatively low and the spatial distribution of the action is consolidated into a single location.

Direct and indirect effects to the northern spotted owl and its habitat may occur as a result of this Project. However, such effects would be insignificant and discountable and, therefore, not anticipated to rise to the level of take.

In addition to the Project features and general AMMs, the Project would, to the extent feasible, conduct all major tree removal outside the northern spotted owl nesting season, and during the later portion of the northern spotted owl's breeding season (AMM BIO-5).

Tricolored Blackbird: No impacts to tricolored blackbird (*Agelaius tricolor*) nests are anticipated to occur as a result of the Project.

Suitable habitat for tricolored blackbird is adjacent to the BSA and there are 4 CNDDB occurrences within 5 miles of the BSA. To the greatest extent feasible, Caltrans would conduct vegetation and tree trimming outside of the bird nesting season (February 1 through September 30). Prior to construction, nesting bird surveys would be conducted. If an active nest is identified, a non-disturbance buffer would be established to minimize disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance.

With the implementation of Project Feature BIO-8, the Project would avoid direct impacts to tricolored blackbird nests.

Mammals: The Project would have a less than significant impact to mammal species of special concern, including: American badger (*Taxidea taxus*), pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), and Point Reyes jumping mouse (*Zapus trinotatus orarius*).

Multiple CNDDB bat, American badger, and Point Reyes jumping mouse occurrences have been recorded within 5 miles of the BSA. The American badger or Point Reyes jumping mouse may occur in grassland habitat adjacent to the BSA. Densely vegetated areas with canopy covers were also observed in the BSA, near the culvert replacement locations. These areas are likely to be used by foraging bats at night, or by foliage-roosting bats. Large snags and large trees with pronounced crevices or cavities have an increased potential to be used as day roosts by bats in this region.

Trees that are suitable bat roosting habitat would be removed using the two-phase tree removal method (AMM BIO-6). The two-phase tree removal method involves removing limbs from trees on the afternoon of the first day and stumping the trees on the following day. This technique allows any bats that may be using the trees to leave of their own volition; they are then unlikely to day-roost in or near any trees from which the limbs were removed.

The Project would result in some loss of potential roosting and foraging habitat; however, the surrounding area at culvert replacement locations provides alternative roosting and foraging options. With the implementation of BIO Project features and AMMs, the Project would avoid additional direct impacts to these and other small mammal species.

Designated Critical Habitat

There is federally designated critical habitat for the California red-legged frog and yellow larkspur within the BSA and Project footprint. California red-legged frog critical habitat overlaps and surrounds the BSA, from approximately PMs 24.7 to 28.4. Yellow larkspur critical habitat overlaps the BSA, from approximately PMs 45.0 to 45.1.

The Project is not expected to adversely modify or destroy the critical habitat physical and biological features for the California red-legged frog or the yellow larkspur.

Because of Project features and AMMs that would be implemented by the Project to protect the California red-legged frog, the yellow larkspur, and other protected species and habitats, no indirect effects to the critical habitat primary constituent elements are anticipated. The Project is not anticipated to appreciably diminish the capability of the critical habitat to satisfy essential requirements of the species.

Other Species

Other species listed as endangered or threatened under the FESA or California Endangered Species Act, defined by CDFW as a species of special concern, or plant species in CNPS Online Inventory of Rare and Endangered Plants were eliminated from further consideration based on: (1) the BSA being outside of the species' range; (2) no suitable habitat identified in the BSA; or (3) the species not being found during protocol-level plant surveys.

b) Less than Significant Impact with Mitigation

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

Tree Inventory

A tree inventory was conducted in June 2019 to identify the species, size, and location of trees within the limit of work areas. Of the 327 trees inventoried, 209 of those trees (about 64 percent) are located within riparian habitats, and 118 of the trees (about 36 percent) are located within upland habitats.

Attempts to minimize tree removal would include trimming wherever possible to allow plants that reproduce vegetatively to resprout after construction (Project Feature BIO-9). Tree removal may be required at multiple culvert replacement locations. The exact number of trees, their species, and diameters at breast height, would be determined during later Project phases. Riparian trees removed as a result of this Project (culvert replacement) would be replaced onsite at a 3:1 replanting ratio (Mitigation Measure BIO-1). No compensatory offsite mitigation for riparian habitat is anticipated for this Project.

All accessible trees with diameters at breast height of 2 inches or greater are more than 4 feet 2 inches from the existing guardrail, as measured from the outside edge of the metal portion of the guardrail to the closest edge of the tree stem; therefore, tree removal is not anticipated for guardrail clearance. A portion of guardrail replacement area is wooded and was not accessible because of safety reasons; therefore, tree

removal could potentially occur in those locations in accordance with the above criteria.

Trees near bicycle safety pullouts and other work areas would be marked as environmentally sensitive areas (Project Feature BIO-1) and would be avoided during construction.

The Marin County Native Tree Protection and Preservation ordinance (Marin County 2012a) applies to protected and heritage trees located on improved and unimproved lots in non-agricultural unincorporated areas of Marin County. Protected and heritage trees include specific species with detailed diameters at breast height, as defined under the Marin County Development Code Chapter 22.130 (Marin County 2012b).

The Marin County Native Tree Protection and Preservation ordinance does not apply to projects located within the Coastal Zone; therefore, it only applies to the work areas south of PM 26.0. Replacement of the culvert at PM 24.16 is anticipated to require tree removal.

Marin County Code 22.26.040 states, "Any trees that are to be removed and for which a Tree Removal Permit is required shall be replaced at a minimum ratio of two new, appropriately sized and installed trees for each tree removed, unless a higher or lower replacement ratio is determined to be appropriate." Mitigation Measure BIO-1 requires replacement of riparian trees at a ratio of 3:1, which exceeds the replacement ratio required in the Marin County Code.

Environmentally Sensitive Habitat Areas

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 study areas include coastal wetlands and streams, riparian vegetation, and special-status species habitats. Habitats that support special-status or rare species were discussed in subsection "a" above and are not discussed further in this section. Wetlands and other waters under the jurisdiction of the U.S. Army Corps of Engineers, per Section 404 of the Clean Water Act, are discussed in subsection "c" below. However, under the California Coastal Commission's (CCC's) definition of

wetlands (California Code of Regulations Section 13577[b]), a wetland need only display one of the parameters typically used to define wetland areas, in contrast to the U.S. Army Corps of Engineers' use of a three-parameter definition. Therefore, the following discusses coastal wetlands and streams, inclusive of riparian vegetation, as defined by California Code of Regulations Section 13577(b).

Surveys were performed in June and July 2019, within the 44 areas north of PM 26 to include areas that are within the California Coastal Zone. These surveys included the limit of work areas, and a buffer to the edge of Caltrans ROW and beyond the ROW at three locations where permissions to enter were obtained. The California Coastal Zone survey areas were found to support approximately 0.472 acre of coastal wetlands, 1.189 acres of riparian and willow scrub habitat, and 0.44 acre of coastal creek waters (Caltrans 2019d). These acreages have yet to be verified by the CCC.

No permanent structures or modifications will be made to ESHAs. The Project would have temporary direct impacts to the following ESHAs: approximately 0.48 acre of riparian habitat, 0.11 acre of wetlands, and 0.13 acre of waters. Impacts would result from construction activities related to culvert replacement, temporary creek diversion system, metal beam guardrail replacement, shoulder backing, and stormwater treatment areas.

Caltrans has minimized Project-related impacts to the greatest extent feasible and will implement Project features and AMMs to minimize potential effects to ESHAs. Temporarily impacted ESHAs would be fully restored within 12 months of impact, as identified in Mitigation Measures BIO-1 and 2.

c) Less than Significant Impact

The Project would have a less than significant impact on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, and coastal areas) through direct removal, filling, hydrological interruption, or other means.

An aquatic resources delineation was conducted for federally protected wetlands and other waters as defined by Section 404 of the Clean Water Act (Caltrans 2019e). The 3.47-acre study area covered 9 work areas, including the 8 proposed culvert replacement work areas. There was no evidence of wetland features, as defined by Section 404 of the Clean Water Act; however, a total of 0.0211 acre (210 linear feet)

of other potential waters of the United States was mapped within the 3.47-acre study area. This acreage has not been verified by the U.S. Army Corps of Engineers.

Temporary direct impacts to potential waters of the United States would result from dewatering and water diversion activities during culvert replacement. The Project is anticipated to temporarily impact a total of approximately 0.02 acre of potential jurisdictional waters of the United States. The disturbed areas would be restored upon Project completion (Project Feature BIO-11). Any potential waters of the United States near other work sites would be avoided with delineation of work area boundaries (Project Feature BIO-1). There are no anticipated permanent impacts to waters of the United States.

Indirect impacts to adjacent aquatic features would be avoided with the implementation of Project features dust control (Project Feature AQ-1), the SWPPP (Project Feature WQ-1), construction site BMPs (Project Feature WQ-2), delineation of work area boundaries (Project Feature BIO-1), and AMM seasonal avoidance of work in aquatic features (Project Feature BIO-5).

d) Less than Significant 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.

Construction activities and wildlife exclusion fencing (Project Feature BIO-2) would temporarily preclude wildlife from work areas at the eight culvert replacement work areas. These work areas are potential movement corridors for California red-legged frog and western pond turtle; California red-legged frog may use the vegetated upland areas within the Project area for dispersal, especially during any rain events, and western pond turtles use water to disperse. However, construction would occur during the summer (Project Feature BIO-5), when all the drainages within the Project work areas are anticipated to be dry and rain events are unlikely. Assuming that the culvert replacement work areas are wildlife migratory corridors, the effect of construction work at each location would be: (1) temporary, and (2) unlikely to impede movement because work would occur under dry condition when these species are less likely to migrate. The disturbed areas would be restored upon Project completion (Project Feature BIO-11). Through these AMMs, this impediment to movements is not expected to affect the habitat's long-term suitability to support wildlife corridors or other animal movements in the future.

e) Less than Significant Impact

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

The Marin Countywide Plan (Plan) (Marin County 2007) is the comprehensive, long-range general plan that guides land use and development in the unincorporated areas of Marin County. The Plan states, "When removal of native riparian vegetation is unavoidable in a Stream Conservation Area [i.e. riparian habitat], and mitigation is required, [the Plan rules] require establishment of native trees, shrubs, and ground covers within a period of five years at a rate sufficient to replicate, after a period of five years, the appropriate density and structure of vegetation removed. [The plan rules] require replacement and enhancement planting to be monitored and maintained until successful establishment provides for a minimum replacement or enhancement ratio of 2:1." The Project's restoration of riparian vegetation per Mitigation Measure BIO-1 is consistent with this requirement. Therefore, the Project would not conflict with the Marin Countywide Plan goals to preserve and restore the natural environment and the impact would be less than significant.

The Marin County Local Coastal Program (LCP) is a land use plan for Marin County's Coastal Zone that guides land use and development in accordance with the California Coastal Act (Marin County 1981). Impacts to ESHAs within the California Coastal Zone may require the Project to obtain a local Coastal Development Permit.

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.

Project Features

Project Feature BIO-1: ESA Fencing. Prior to the start of construction, 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 duration of the Project construction, preventing construction equipment or personnel from entering sensitive habitat areas. The final Project plans will depict all locations where ESA fencing will be installed and how it will be installed. The special provisions in the bid solicitation package will clearly describe acceptable fencing

material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs.

Project Feature BIO-2: Wildlife Exclusion Fencing. Prior to the start of construction, the Project footprint will be delineated with temporary, high-visibility wildlife exclusion fencing, as needed, to prevent the inadvertent encroachment of wildlife into the Project footprint. The fencing will be removed only when all construction equipment is removed from the job site. The final Project plans will depict the locations where the exclusion fencing will be installed, and the type of materials used.

Project Feature BIO-3: Construction Site Management Practices. The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:

a. Project-related vehicle traffic will be restricted to established roads and construction areas. Project vehicles will observe a 15-mile-per-hour speed limit while in the Project footprint, except on the current highway.

b. Construction access, staging, storage, and parking areas will be located within the Project's ROW, outside of any designated ESA or the ROW in areas environmentally cleared and permitted by the contractor. The following areas will be limited to the minimum necessary to construct the proposed Project: access routes, staging and storage areas, and contractor parking. Routes and boundaries of roadwork will be clearly marked prior to initiating construction or grading.

c. Any borrow material will be certified, to the maximum extent practicable, as being non-toxic and weed free.

d. All food-related trash items, such as wrappers, cans, bottles, and food scraps, will be disposed of in closed containers and removed at least once daily from the Project footprint.

e. All pets will be prohibited from entering the Project area during construction.

f. Firearms will be prohibited within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

g. All equipment will be maintained to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents. A spill response plan would be developed. Hazardous

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

h. Vehicles and construction equipment will be serviced, including fueling, cleaning, and maintenance, at least 50 feet from any aquatic habitat unless the activity is separated by topographic or drainage barrier.

Project Feature BIO-4: Dewatering. Dewatering and discharging activities will be conducted according to standard Caltrans requirements.

Project Feature BIO-5: Seasonal Avoidance. Constrain construction, below top of bank, to occur during the dry season, during creek low flows (starting June 15 and ending October 31). Limit work in the creek to when the creek is dry or mostly dry, as much as practicable, or when the creek diversion has been installed. Caltrans will complete advanced tree removal activities outside of the California red-legged frog-breeding season and bird nesting season at the bridge locations.

Project Feature BIO-6: Night Work. During the work that needs to occur at nighttime, direct all lighting downward and toward the active construction area.

Project Feature BIO-7: Agency Site Access. If requested, before, during, or upon completion of groundbreaking and any construction activities, Caltrans will allow access by agency personnel into the Project footprint to inspect the Project and its activities. Caltrans requests that all agency representatives contact the resident engineer (RE) prior to accessing the work site and review and sign the Safe Work Code of Practices, prior to accessing the work site for the first time.

Project Feature BIO-8: Migratory Birds and Nest Avoidance. During the nesting season (February 1 through September 30), have a qualified biologist conduct pre-construction surveys for nesting birds 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.

Project Feature BIO-9: Vegetation Removal. Clear any vegetation within the cut-and-fill line or growing in locations where permanent structures will be placed (such as MGS and culvert replacements). Clear vegetation only where necessary and cut above soil level, except in areas that will be excavated for construction. All clearing and grubbing of woody vegetation will occur by hand or using construction equipment, such as mowers, backhoes, and excavators.

Project Feature BIO-10: Erosion Control Matting. To avoid wildlife entrapment, use coconut coir matting or tackified hydroseeding compounds.

Project Feature BIO-11: 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.

Project Feature BIO-12: Reduce Spread of Invasive Species. To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, 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 them in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project area will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project.

Project Feature BIO-13: Prevention of Entrapment. At the close of each working day, to prevent the inadvertent entrapment of the California red-legged frog, cover all excavated, steep-walled holes or trenches more than 1 foot deep with plywood or similar materials. If covering an excavation is not feasible, then install one or more escape ramps constructed of earthen fill or wooden planks. Before such holes or trenches are filled, thoroughly inspect them for trapped animals. If at any time a trapped listed animal is discovered, the biologist will immediately place escape ramps

or other appropriate structures to allow the animal to escape, or USFWS will be contacted by telephone for guidance. The USFWS will be notified of the incident by telephone and electronic mail within one working day.

Avoidance and Minimization Measures

AMM BIO-1: Approved Biologist. Submit the names and qualifications of the proposed biomonitor(s) to the USFWS and CDFW for approval at least 30 calendar days prior to the start of construction.

a. Prior to working on the site, the approved biomonitor(s) will submit a letter to the USFWS and CDFW verifying that they possess a copy of the Biological Opinion (BO), Streambed Alteration Agreement, and other relevant permits for the Project, and understand the *Terms and Conditions*.

b. The biomonitor(s) will keep a copy of the BO, Streambed Alteration Agreement, and other relevant permit materials in their possession when onsite.

c. The biomonitor(s) will be onsite during all work that could reasonably result in take of special-status wildlife.

d. In coordination with the Caltrans RE, the biomonitor(s) will have the authority to stop work that may result in the unauthorized take of special-status species. If the biomonitor(s) exercises this authority, the USFWS or CDFW will be notified by telephone and email within one working day.

e. At least 30 days prior to the onset of activities, submit to the USFWS and CDFW the name(s) and credentials of biologists who will conduct preconstruction surveys and relocation activities for the listed species. No Project activities will begin until the proponent has received written approval from the agencies that he/she is approved to conduct the work. An agency-approved biologist will be present onsite during the construction of any erosion control fencing or cofferdams, and prior to and during the dewatering activities to monitor for the California red-legged frog. Through communication with the RE or his/her designee, the agency-approved biologist may stop work, if deemed necessary, for any reason to protect listed species; the biologist will advise the RE or designee on how to proceed accordingly.

f. The RE (or designee) will do the following tasks: 1) Send a letter to the USFWS and CDFW verifying that they possess a copy of the BO and Lake and Streambed

Alteration Agreement and understands the *Terms and Conditions*. 2) Maintain a copy of the BO, Lake and Streambed Alteration Agreement, and other relevant permits onsite whenever construction is taking place. 3) Immediately contact the agency-approved biological monitor when a California red-legged frog is observed within the construction zone. Construction activities will be suspended within a 50-foot radius of the California red-legged frog until the animal leaves the site voluntarily or is relocated by the agency-approved biological monitor. The agency-approved biological monitor will follow established California red-legged frog protocols for relocation of the California red-legged frog.

AMM BIO-2: Worker Environmental Awareness Training. Prior to ground-disturbing activities, have an agency-approved biologist 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 endangered species, as well as the importance of compliance with Caltrans and various resource agency conditions.

AMM BIO-3: Pre-Construction California Red-Legged Frog Surveys. An agency-approved biologist will conduct pre-construction surveys for the California red-legged frog no more than 20 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. These efforts will consist of walking surveys within the area of ground disturbance and, if possible, accessible adjacent areas within at least 50 feet of the Project limits. The agency-approved biologist will investigate potential cover sites when such investigation is feasible and safe. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the Project limits will be documented and relocated to an adequate cover site in the vicinity. Safety permitting, the agency-approved biologist(s) will investigate areas of

disturbed soil for signs of California red-legged frogs within 30 minutes following initial disturbance of the given area.

AMM BIO-4 Protocol for Species Relocation and Reporting. Follow these procedures if California red-legged frogs are encountered in the immediate work area:

a. If a frog is discovered during surveys or Project activities, the RE and agency-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 or is removed by the agency-approved biologist. The captured frog will be released within appropriate habitat outside of the construction zone within the creek riparian corridor. The release habitat will be determined by the USFWS-approved biologist.

b. The agency-approved biologist will have the authority to halt work through coordination with the RE if a frog is discovered within the Project footprint. The RE will ensure construction activities remain suspended in any construction area where the qualified biologist has determined that a potential take of the frog could occur. Work will resume once the animal leaves the site voluntarily, or is removed by the biologist(s) to a release site using USFWS-approved handling techniques, or if it is determined that the frog 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.

c. 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).

d. An agency-approved biologist or a licensed veterinarian will care for injured frogs, if necessary. Dead frogs will be preserved according to standard museum techniques and held in a secure location. The USFWS will be notified within one working day of the discovery of a death or injury of frog(s) resulting from Project-related activities or if a frog is observed at the Project site. Notification will include the date, time, location, and any other pertinent information related to the incident or the finding of a dead or injured animal, clearly indicated on a United States Geological Survey (USGS) 7.5-minute quadrangle and other maps at a finer scale, as requested by the USFWS.

e. Caltrans will submit post-construction compliance reports prepared by the biologist to the USFWS within 60 calendar days following completion of Project activities, or within 60 calendar days of any break in construction activity lasting more than 60 calendar days. This report will detail: (1) dates that relevant Project activities occurred; (2) pertinent information concerning the success of the Project in implementing AMMs for listed species; (3) an explanation of failure to meet such measures, if any; (4) known Project effects on the frog, if any; (5) occurrences of incidental take of listed species; (6) documentation of employee environmental education; and (7) other pertinent information.

AMM BIO-5: Vegetation Removal Avoidance for Northern Spotted Owl. To the extent feasible, conduct all major tree removal between October 1 and January 31, prior to the onset of winter rains, outside the northern spotted owl nesting season and during the later portion of the northern spotted owl's breeding season (February 1 to September 30) and one year prior to the start of construction activities. Trees will be stumped and roots left in place until construction commences the following year. Should vegetation removal occur during the northern spotted owl's breeding season, an agency-approved biologist will conduct protocol surveys following the USFWS northern spotted owl survey protocols (USFWS 2012) or most current protocol.

AMM BIO-6: Vegetation Removal Avoidance for Bats. Remove any trees that may provide roosting habitat (such as large snags or trees with cavities) using the two-phase method of removing limbs from the tree on the afternoon of the first day and stumping the tree on the following day.

AMM BIO-7: Fish Passage Assessment. During later phases of the Project, a fish passage assessment will be conducted to determine if any of the eight culverts proposed for replacement are currently a barrier to fish passage. If any of the culverts proposed for replacement are determined to be a barrier to fish passage, then the Project will be designed to eliminate the fish passage barrier in accordance with Senate Bill 857.

Mitigation Measures

Mitigation Measure BIO-1: Riparian Tree Replacement. Riparian trees that are removed as a result of this Project will be replanted onsite, at a ratio of 3:1, upon Project construction completion.

Mitigation Measure BIO-2: Wetlands and Waters Restoration. Mitigation for temporary impacts to wetlands and waters within the California Coastal Zone will be accomplished through onsite restoration, upon Project construction completion.

Cultural Resources

V. CULTURAL RESOURCES: Would the project:

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

Cultural resource evaluations prepared for this Project include: A *Summary Memo for the State Route (SR) 1 Capital Preventive Maintenance Project in Marin County* (Caltrans 2019f), the *Historic Property Survey Report (HPSR)*, and the *Historical Resources Evaluation Report (HRER)* (Caltrans 2019g and 2019h). This section summarizes the findings of these memos.

The architectural area of potential effects (APE) includes the town of Tomales in the northern portion of the Project to incorporate the Tomales Historic District, and the Olema Valley Dairy Ranches Historic District in the southern portion of the Project. Within the town of Point Reyes Station, the architectural APE includes parcels potentially subject to indirect effects. Figures Cultural (CULT) -1 through -12 show the historic resources within the architectural APE. An architectural survey of the Project APE was conducted in August 2018 and a follow-up survey was conducted in October 2018.

The HSPR identified 10 historic resources within the APE that required evaluation for the National Register of Historic Places (National Register). Seven of the historic resources were determined to be not individually eligible for listing in the National Register. Three historic resources were determined to be eligible for listing in the National Register; these are:

- Diekmann's General Store & Post Office, Tomales
- Point Reyes Emporium, Point Reyes Station
- Grandi Company Building, Point Reyes Station

The State Historic Preservation Officer concurred with these determinations on June 13, 2019.

There are two additional built environmental resources within the APE, the Olema Valley Dairy Ranches Historic District, which was listed in the National Register on April 9, 2019; and the Tomales Historic District, which was assumed to be eligible for the purposes of the Project, on January 30, 2019.

The archeological APE for the Project was established as the full extent of the Caltrans ROW along SR 1, between PMs 22.8 and 31.2; PMs 32.9 and 33.0; and PMs 45.0 and 50.5, and any locations where ground-disturbing activities would take place, to include portions of privately, federally, and state-owned parcels where TCEs would be required.

Archaeological surveys of the Project APE were conducted in October 2018 and a follow-up survey was conducted in March 2019. The archaeological survey did not identify any archaeological resources within the Project APE.

a) Less than Significant Impact

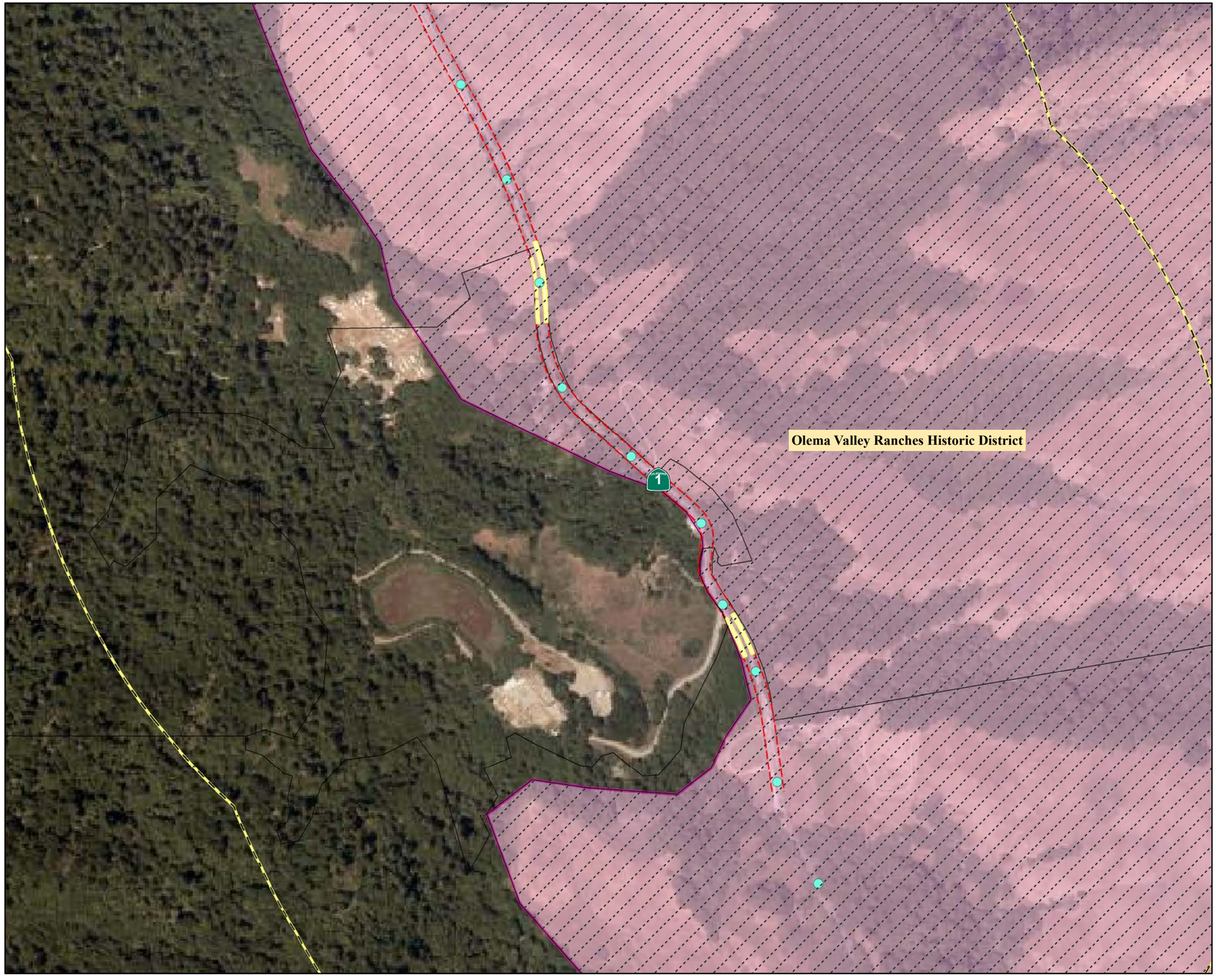
The Project would have a less than significant impact on historic resources. The proposed Project would require various TCEs for curb ramp upgrades adjacent to SR 1 throughout Tomales and Point Reyes Station, and a TCE for curbs adjacent to the historic Diekmann's General Store & Post Office in Tomales and the Grandi Company Building in Point Reyes Station. These TCEs would not adversely affect any structures, landscaping, or supporting infrastructure to these buildings. The impact on these historic resources would be minor, temporary, and have no adverse effect on the qualities, which qualified these sites for listing on the National Register.

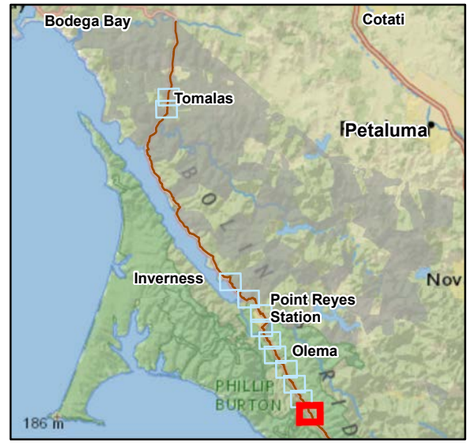
The Project would not have any impact on the Point Reyes Emporium.

The Olema Valley Dairy Ranches Historic District is located more than a 0.5 mile from the Project limits. Therefore, no impact would occur to this resource.

The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. The impact to historic properties would be less than significant.

The potential for impacts from construction vibration to historic resources would be less than significant, as discussed in the Noise section below.





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

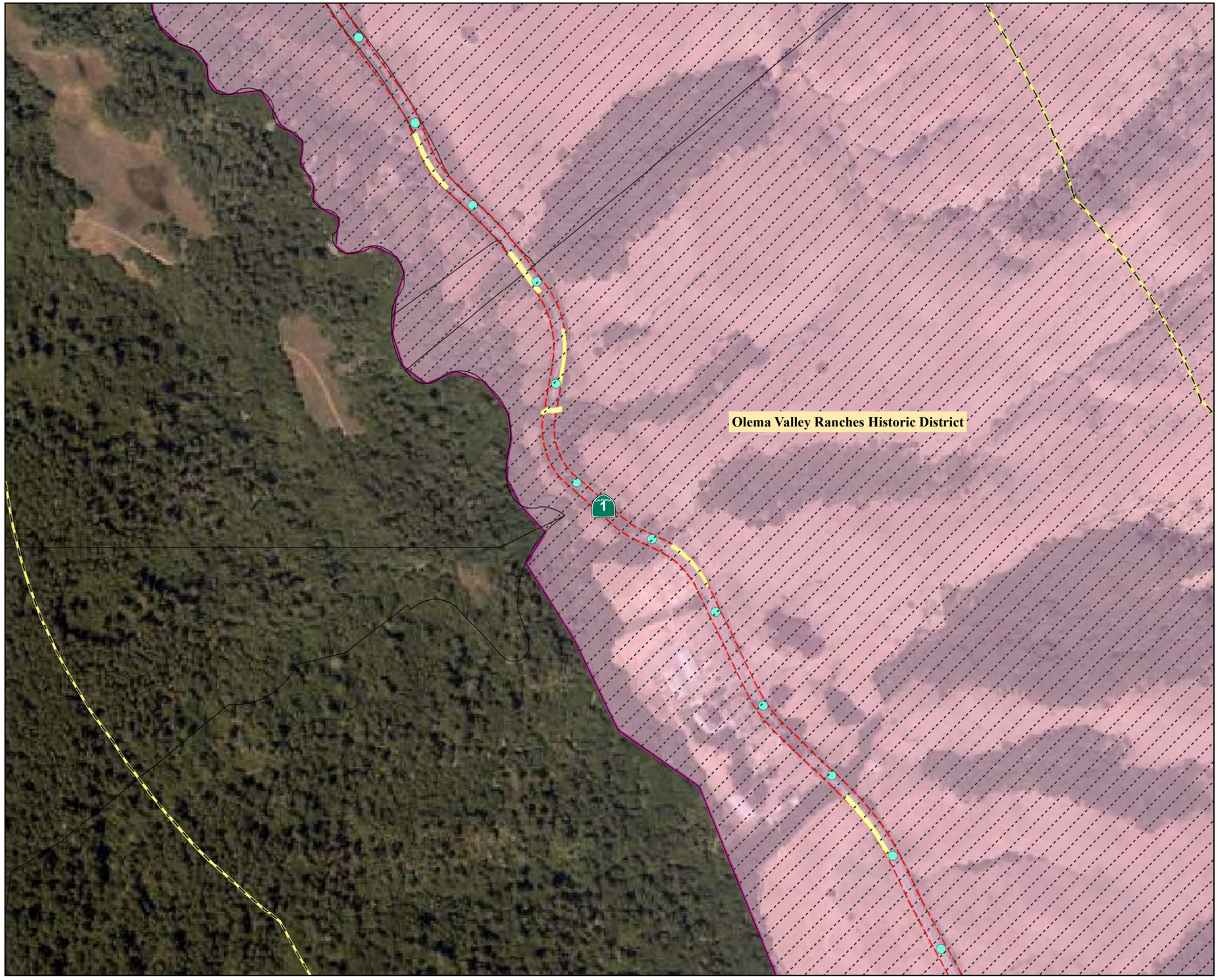
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

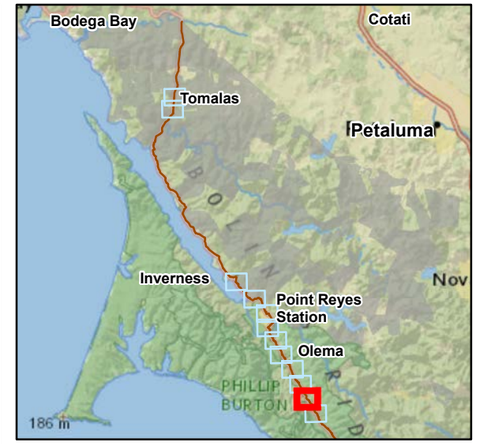
N

0 500 1,000
Feet

Caltrans

CULT-1
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

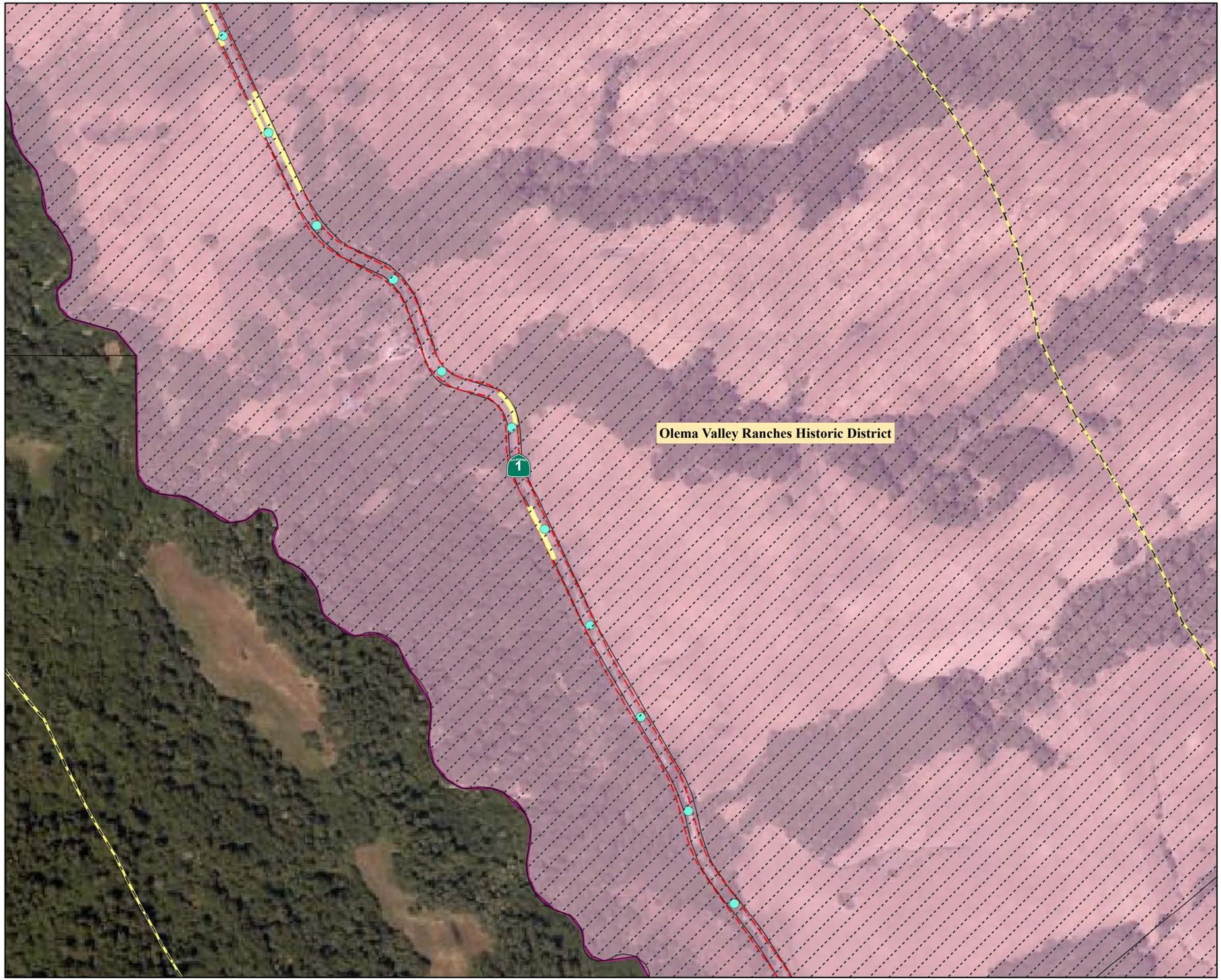
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

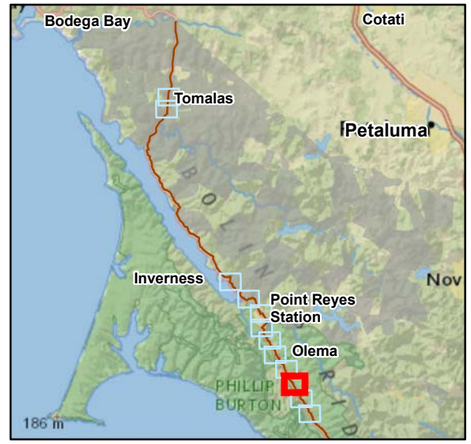
N

0 500 1,000
Feet

Caltrans

CULT-2
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

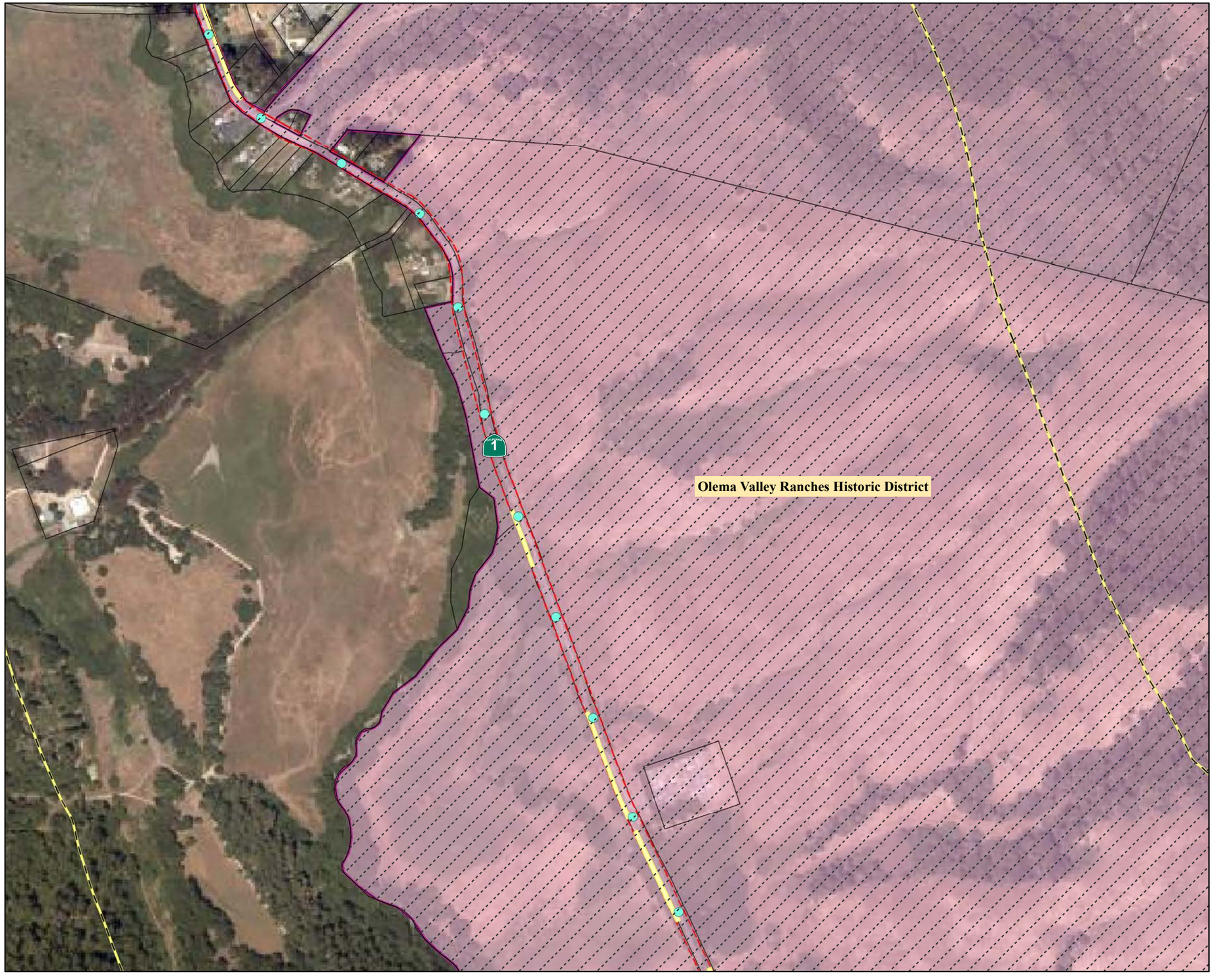
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

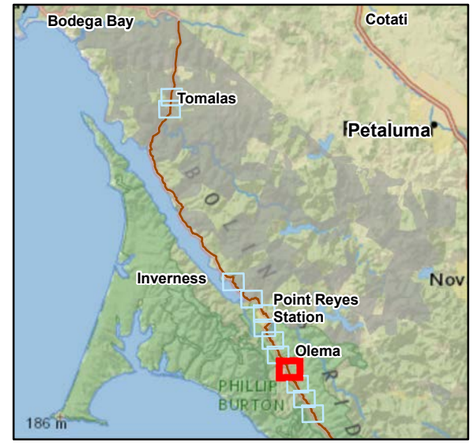
N

0 500 1,000
Feet

Caltrans

CULT-3
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

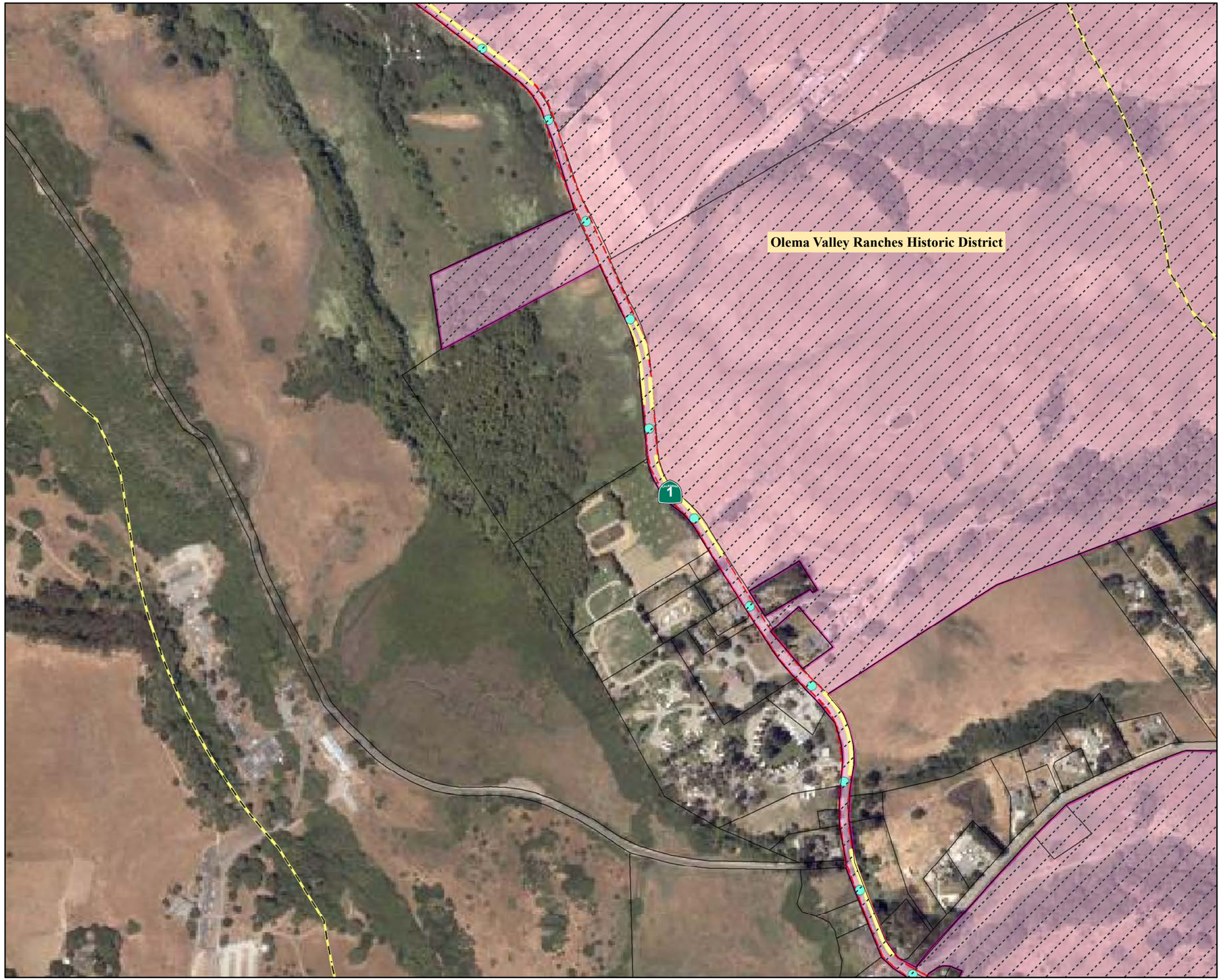
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

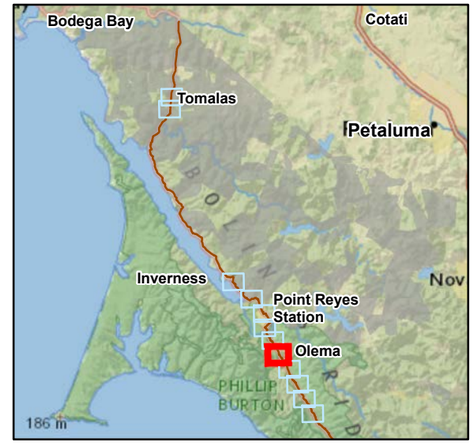
N

0 500 1,000
Feet

Caltrans

CULT-4
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

N

0 500 1,000
Feet

Caltrans

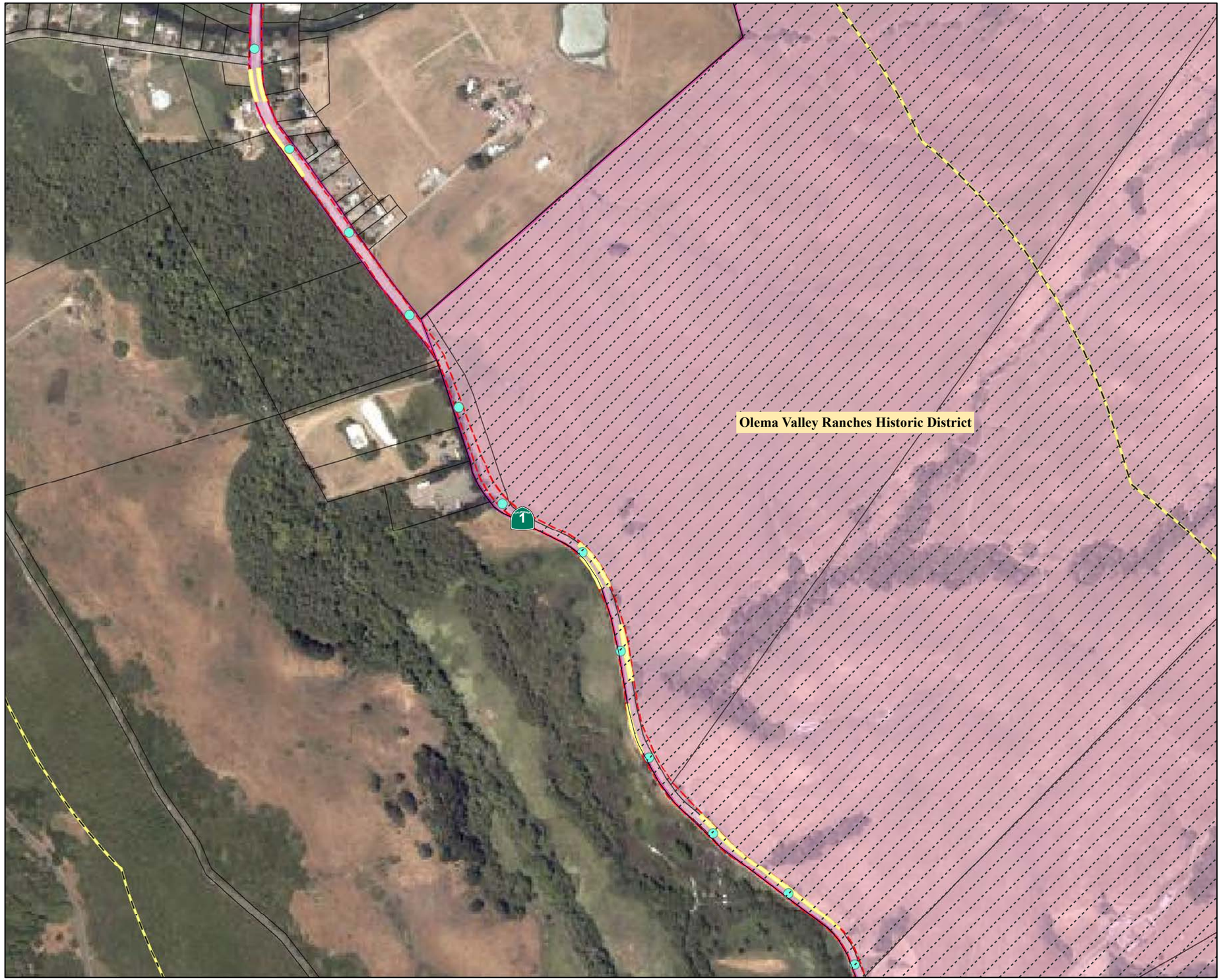
CULT-5

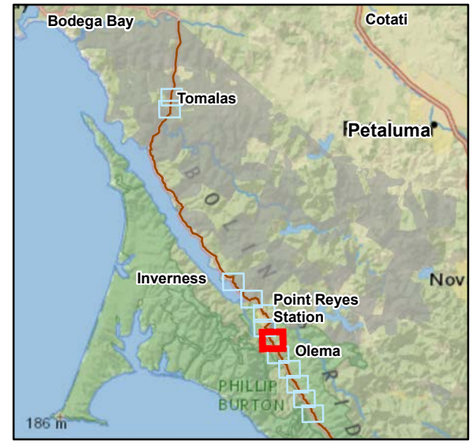
Impacts to Section 4(f) Resources: Historic Sites

State Route 1 Capital Preventive Maintenance (CAPM)

EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5

Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

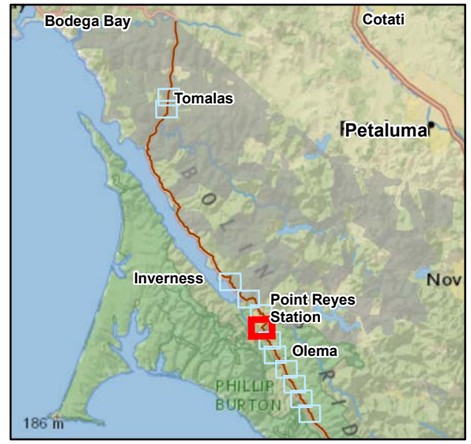
N

0 500 1,000
Feet

Caltrans

CULT-6
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Historic Building
- Olema Historic District

Imagery: 6/13/2018 and 6/23/2018 MarinMap,
County of Marin, Golden Gate National Parks Conservancy.

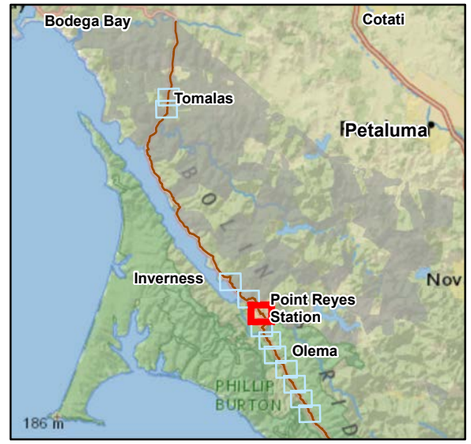
N

0 500 1,000
Feet

Caltrans

CULT-7
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

N

0 500 1,000
Feet

Caltrans

CULT-8
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

N

0 500 1,000

Feet

Caltrans

CULT-9

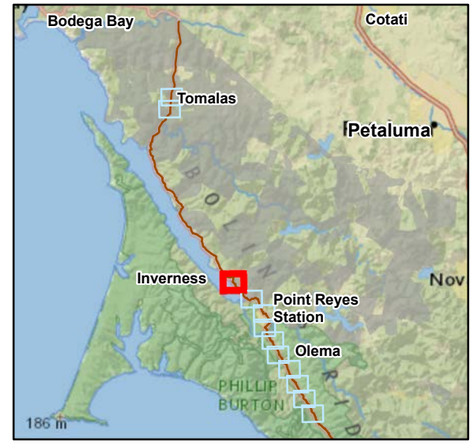
Impacts to Section 4(f) Resources: Historic Sites

State Route 1 Capital Preventive Maintenance (CAPM)

EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5

Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Olema Historic District

Imagery: 6/13/2018 and 6/23/2018 MarinMap,
County of Marin, Golden Gate National Parks Conservancy.

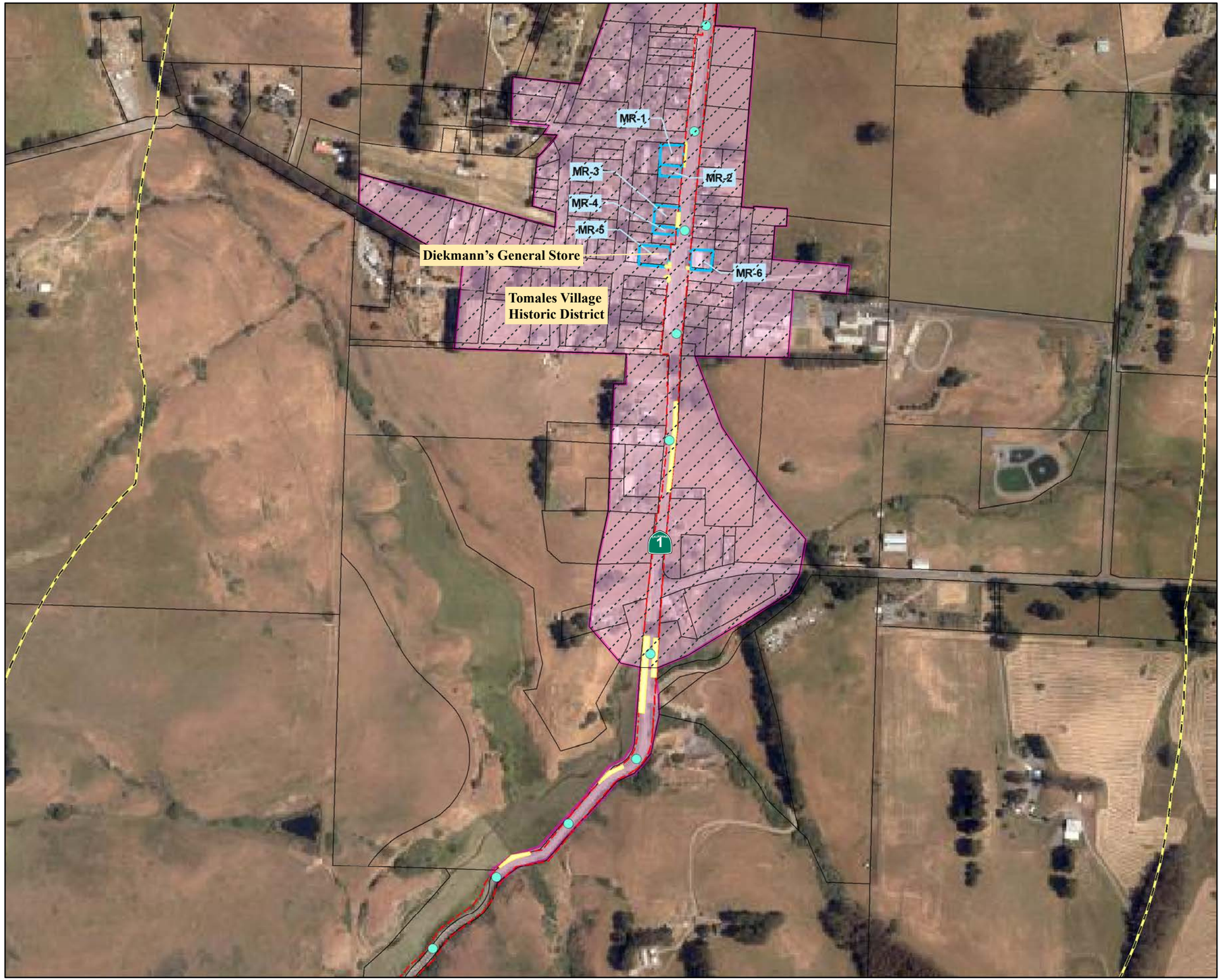
N

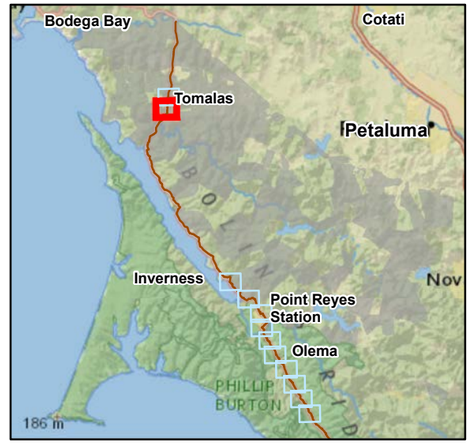
0 500 1,000
Feet

Caltrans

CULT-10
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California

\\BROOKSIDEFILES\GIS_SHARE\ENBG\00_PROJ\C\CALTRANS\1J960_MRN1\GIS\MAPS\REPORT\2020\IS_MND\JAN\SECTION4F_HISTORIC_RESOURCES_1J960.MXD CARCHER 1/7/2020 12:52:43 PM





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Historic Building
- Tomales Historic District

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

N

0 500 1,000
Feet

Caltrans

CULT-11
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- County Parcel
- Half Mile Buffer of Work Area
- Historic Resource
- Historic Building
- Tomales Historic District

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

N

0 500 1,000
Feet

Caltrans

CULT-12
Impacts to Section 4(f) Resources: Historic Sites
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California

b) No Impact

As described above, no archaeological resources were identified within the APE for this Project; and the Project would be constructed on previously disturbed ground within fill areas so, discovery of unidentified cultural materials is not anticipated. Therefore, the Project would have no impacts on archaeological resources. If cultural materials were discovered during construction, then Project Feature CULT-1 would be implemented.

c) No Impact

The Project would have no impact on human remains. The Project would be constructed on previously disturbed ground within fill areas; therefore, discovery of cultural materials or human remains is unlikely to occur. Implementation of Project Features CULT-1 and CULT-2 would reduce potential impacts to undiscovered cultural resources.

Project Features

Project Feature CULT-1: Discovery of Cultural Materials. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

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

Energy

VI. ENERGY: Would the project:

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

a) Less than Significant Impact

The Project would not increase roadway capacity or otherwise alter long-term vehicular circulation that could affect energy use. During construction, BMPs would be implemented for energy efficiency of construction equipment. During Project operation, energy consumption would be limited to routine maintenance. The impact would be less than significant.

b) No Impact

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

Geology and Soils

VII. GEOLOGY AND SOILS: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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.				X
(ii) Strong seismic ground shaking?				X
(iii) Seismic-related ground failure, including liquefaction?				X
(iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?				X
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?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

An *Environmental Studies for the State Route 1 Capital Preventive Maintenance Project* technical memorandum (Caltrans 2018d) was prepared for the Project. This section includes the findings of this study.

The Project is located in the Olema Valley, in the central portion of the Coast Ranges Geomorphic Province of California. The dominant feature of the Olema Valley is the San Andreas Fault, an 800-mile-long fault zone that generally forms the dividing line between major tectonic plates, with the Pacific Plate situated west of the fault and the North American Plate situated east of the fault. The southern portion of the Project is located as close as 0.4 mile east of the San Andreas Fault (USGS 2019).

Soils in the Project vicinity are generally characterized as deep, poorly to well drained, and located on alluvial fans, in basins, on uplands and on coastal uplands and terraces (NRCS 2019, United States Department of Agriculture Soil Conservation Service n.d.).

a(i) – (iv)) No Impact

The Project does not directly or indirectly increase the potential for surface rupture, or strong ground shaking, or expose the public to increased risk of loss, injury, or death. The Project is not located on a geologic unit or soil that is unstable. Therefore, the Project would not increase the potential risk of loss, injury, or death due to seismically related liquefaction. There would be no impact.

The Project would not affect geologic or native soil conditions and would not disturb the native subsurface because the Project would be located on previously disturbed ground. There are no known sensitive geologic or paleontological resources in the Project limits. There would be no additional impacts to the public from earthquakes, landslides, liquefaction, or other geologic hazards.

b) Less than Significant Impact

Culvert replacement and curb ramp work would require soil disturbance, which could result in erosion. With Caltrans construction BMPs, outlined in Project Features Water Quality (WQ) -1 and WQ-2, discussed below under Hydrology and Water Quality, the Project would not result in substantial erosion or loss of top soil and the impact would be less than significant.

c, d, f) No Impact

There are no sensitive geologic, paleontological, or mineral resources in the Project limits. No additional impacts to the public from earthquakes, landslides, liquefaction, or other geologic hazards would result from the Project. The Project would be located on previously disturbed ground; no disturbance to the native ground or native subsurface would occur from this Project. Therefore, no impact would occur.

e) No Impact

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

Greenhouse Gas Emissions

VIII. GREENHOUSE GAS EMISSIONS: Would the project:

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

A *Construction Greenhouse Gas Emissions Analysis* memorandum (Caltrans 2018e) was completed for the Project. This section summarizes the findings of this review.

a) Less than Significant Impact

The GHG emissions resulting from construction activities would not result in long-term impact on the environment. Construction-generated GHG includes emissions resulting from material processing, onsite construction equipment, workers commuting to and from the Project site, and traffic delays from construction. The GHG emissions would be produced at different levels throughout the Project, depending on the activities involved at various phases of construction.

Based on available Project information, the construction-related GHG emissions were calculated using the Road Construction Emissions Model, version 8.1.2, provided by the Sacramento Metropolitan Air Quality Management District. The analysis was focused on vehicle-emitted GHG and carbon dioxide (CO_2) emissions is the single most important GHG pollutant because of its abundance when compared with other vehicle-emitted GHG, including methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbon and black carbon.

For a construction duration of 12 months, the total amount of CO_2 produced as a result of construction was estimated to be 1,928.26 tons. Table 3-1 summarizes the construction-related emissions, including the total carbon dioxide equivalent (CO_2e) emission. Frequency and occurrence of GHG emissions would be reduced through Project Feature GHG-1, described below.

Table 3-1 Construction-related GHG Emissions

	Parameters			Total
	CO_2 (tons)	CH_4 (tons)	N_2O (tons)	CO_2e (MT)*
Total	1,928.26	0.38	0.02	1,763.58

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

Notes:

GWP = global-warming potential

MT = metric tons

b) No Impact

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

Project Feature

Project Feature GHG-1: Control Measures for Greenhouse Gases. Measures will be determined during later Project phases and implemented during construction to: (1) ensure regular maintenance of construction vehicle and equipment; (2) limit idling of vehicles and equipment onsite; (3) recycle nonhazardous waste and excess material if practicable; and (4) use solar-powered signal boards, if feasible.

Hazards and Hazardous Materials

IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?				X
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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

According to the hazardous waste memorandum prepared for the Project, there is the potential for encountering hazardous materials during the construction stage of the Project (Caltrans 2018c). Limited testing may need to be conducted during the later Project phases, including a site investigation to handle potential soil contamination levels in the Project limits to inform appropriate conditions to minimize impacts during construction.

a, b) Less than Significant Impact

The Project would not create a significant hazard to the public related to the routine transport, use, or disposal of hazardous materials, and 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. The impact would be less than significant.

c) Less than Significant Impact

Schools within the Project vicinity are part of the Shoreline Unified School District. The Project is located adjacent to West Marin Elementary School on SR 1 in Point Reyes Station, approximately 0.1 mile west of Tomales Elementary School in Tomales, and approximately 0.5 mile west of Tomales High School in Tomales. There are no nearby airports.

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. While West Marin Elementary School is adjacent to the Project area and Tomales Elementary School is located within 0.1 mile of the Project area, 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 safely. Therefore, the impacts would be less than significant.

d) No Impact

The Project would not 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 would not create a significant hazard to the public or the environment. Based on a review of the State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB 2019), one underground storage tank (UST) was found in the Project vicinity, within Point Reyes Station. The UST is not located near proposed culvert replacements and would not be affected by the Project. Compliance with Caltrans Standard Specifications 14-11, Hazardous Waste and Contamination (Caltrans 2018f), is required. There would be no impact.

e) No Impact

The Project is not located within an airport land use plan or within 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, which may require up to an 8-hour lane closure of SR 1. One-way traffic control and one lane closure would be required in rural areas of SR 1, while detours would be provided during construction in Point Reyes Station (see Appendix A, Maps 20 and 21). Prior to construction, a traffic management plan (TMP) (see AMM Transportation and Traffic [TRANS] -1 in the Transportation and Traffic section) would be developed to control traffic, minimize traffic delays and provide alternative routes. Emergency response times are not 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. The Project proposes to upgrade existing facilities 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.

Hydrology and Water Quality

X. HYDROLOGY AND WATER QUALITY: Would the project:

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

Caltrans completed the following hydrology and water quality technical studies for the Project, the *Location Hydraulic Study* (Caltrans 2017), *Water Quality Study,* and *Stormwater Data Report* (Caltrans 2019j and 2019k). This section summarizes the findings of that review.

This Project is located within two Regional Water Quality Control Boards. The southern portion of the Project (PM 22.80 through 33.0) is located within the San Francisco Regional Water Quality Control Board (Region 2). This segment is in the Hydrologic Sub-Area (HSA) 201.13 and the Tomales Bay – Frontal Pacific Ocean Watershed.

The northern portion of the Project is located within both the North Coast Regional Water Quality Control Board (Region 1) (PMs 46.50 through 50.50) and Region 2 (PMs 45.00 through 46.50). HSA 201.12 and the Walker Creek Watershed contains

PMs 45.00 through 46.50. The remaining portion of the segment is in HSA 115.40 and the Salmon Creek – Frontal Pacific Ocean Watershed.

a) Less than Significant Impact

The proposed Project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Multiple water bodies are located within and around the Project vicinity, and are on the 303(d) list of impaired water bodies for California. These include Olema Creek, Lagunitas Creek, Tomales Bay, Bodega Hydrologic Unit Estero de San Antonio Hydrologic Area, Stemple Creek, Estero de San Antonio, Estero Americano Hydrologic Area, Americano Creek, and Walker Creek.

The SWRCB issued a statewide Construction General Permit for construction activities (2009-0009-DWQ, CAS000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ) (CGP). The CGP applies to stormwater discharges from land where clearing, grading, and excavation result in a disturbed soil area (DSA) of one acre or greater. Projects subject to the CGP require a SWPPP per the Department's Standard Specification 13, “Water Pollution Control.” The Project would create 0.92 acre of net new impervious area. The Project, along with treatment proposed for other Caltrans projects (see Section 2.2.3 Stormwater Treatment Areas) would result in a net increase of impervious area of approximately 2.62 acre; therefore, a SWPPP would be required as described in Project Feature WQ-1, presented below. The disturbed soil area for the project would be 2.5 acres, and the post-construction treatment area (new net impervious area) would be 2.62 acres.

Potential temporary impacts to existing water quality would result from active construction areas, which could lead to the release of fluids, concrete material, construction debris, sediment, and litter beyond the perimeter of the site. Implementation of Project Feature WQ-2, temporary construction site BMPs, as described below, would be used for sediment control and material management. A stream diversion system and dewatering area would be needed as a result of the proposed culvert work.

A 401 permit is expected to be required for this Project because of work and fill in waters of the United States. This Project would need to consider permanent water quality treatment BMPs, as discussed in Project Feature WQ-3 below. The net new impervious surface is calculated to be 0.92 acre, and would also provide an additional 1.7 acres of stormwater treatment as a result of commitment from another Caltrans

Project (see Section 2.2.3, Stormwater Treatment Areas). The Project would provide a total of 2.62 acres of stormwater treatment.

With implementation of Project Features WQ-1, 2, and 3, the Project would not substantially degrade surface water quality and the impact would be less than significant.

b) No Impact

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

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

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

d) No Impact

No floodplain impacts from the Project are expected. While, SR 1 pavement is within the Federal Emergency Management Agency 100-year floodplain in several locations, as defined by the agency's Flood Insurance Rates Maps (numbers 06041C0245D, 06041C0241D, 06041C0233D, 06041C0229E, 06041C0230E, and 06041C0045D), the resurfacing strategy would be to cold plane the existing pavement to a depth of 0.25 foot and resurface with an equivalent section thickness of 0.25 foot. No new impervious areas would be constructed within the floodplain. Therefore, the paving would have no impact on the floodplain.

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

e) No Impact

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

Project Features

Project Feature WQ-1: Stormwater Pollution Prevention Plan. To comply with the CGP, the Project contractor is required to implement a SWPPP containing BMPs

for stormwater pollution control. The SWPPP will be prepared by the contractor and approved by Caltrans, and detail the implementation of temporary construction site BMPs during all phases of construction to avoid or minimize stormwater and effects to surface water, groundwater, or domestic water supplies. The SWPPP will include erosion control BMPs implemented, to minimize wind- or water-related erosion. These prevention measures will also fulfill the requirements of the San Francisco RWQCB. The Caltrans BMP Guidance Handbook will provide the design staff with guidance for including appropriate provisions in the construction contract that will prevent or minimize stormwater and non-stormwater discharges and protect sensitive areas. At a minimum, protective measures will include the following:

- Any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses will be disallowed.

- Vehicle and equipment fueling and maintenance operations will be kept at least 50 feet away from watercourses, except at established commercial gas stations or an established vehicle maintenance facility.

- All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 50 feet from any downstream riparian habitat, aquatic habitat, culvert, or drainage feature.

- Dedicated fueling and refueling practices will be designated as part of the approved SWPPP. Dedicated fueling areas will be protected from stormwater runoff and be located at least 50 feet from downslope drainage facilities and water courses.

- Fueling must be performed on level-grade areas. Onsite fueling will only be used when and where sending vehicles and equipment offsite for fueling is impractical. When fueling must occur onsite, the contractor will designate an area to be used subject to the approval of the RE representing Caltrans. Drip pans or absorbent pads will be used during onsite vehicle and equipment fueling.

- Spill containment kits will be maintained onsite at all times during construction operations and/or staging or fueling of equipment.

- Dust control measures will be implemented. These will consist of regular truck watering of construction access areas and disturbed soil areas, including the use of organic soil stabilizers, if required, to minimize airborne dust and soil particles

generated from graded areas. For disturbed soil areas, the use of tackifier to control dust emissions blowing off of the ROW or out of the construction area during construction will be included in the construction contract. Watering guidelines will be established to avoid any excessive runoff that may flow into contiguous areas. Any material stockpiles will be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion. All of these efforts will be consistent with the RWQCB or approved SWPPP. Dust control will be addressed during the environmental education session.

- Coir rolls or straw wattles will be installed along or at the base of slopes during construction to capture sediment.

- Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (such as jute or coir) as appropriate on sloped areas.

Project Feature WQ-2: Construction Site BMPs. To prevent or reduce impacts to water quality during construction, construction site BMPs would be deployed for sediment control and material management. These include:

- **Job Site Management:** This non-stormwater discharge and waste management practice includes considerations for operations, illicit discharge detention and reporting, vehicle and equipment cleaning, vehicle and equipment fueling, and material use.

- **Temporary Fiber Rolls:** A fiber roll consists of straw or other similar materials placed on the face of the slopes at regular intervals to intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff.

- **Silt Fence:** A silt fence is a temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff. Silt fences allow sediment to settle from runoff before water leaves the construction site. Silt fences are placed below the toe of exposed and erodible slopes, downslope of exposed soil areas, around temporary stockpiles and along streams and channels. Silt fences should not be used to divert flow or in streams, channels, or anywhere flow is concentrated.

- **Drainage Inlet Protection:** Drainage inlet protection is a practice to reduce sediment from stormwater runoff discharging from the construction site prior to entering the storm drainage system. Effective drainage inlet protection allows sediment to settle out of stormwater or filters sediment from the stormwater before it enters the drain inlet. Drainage inlet protection is the last line of sediment control defense prior to stormwater leaving the construction site.

- **Portable Concrete Washout:** This waste management BMP contains procedures and practices that would minimize or eliminate the discharge of concrete waste materials to the storm drain systems or watercourses.

- **Temporary Cover:** This BMP involves the placement of geosynthetic fabrics (geotextiles), plastic covers, or erosion control blankets/mats to stabilize DSA and protect soil from erosion by wind or water.

- **Stockpile Management:** This BMP consists of procedures and practices to eliminate pollution of stormwater from stockpiles of soil and paving materials (such as concrete rubble, aggregate, and asphalt concrete). These procedures include locating stockpiles away from drainages, and providing perimeter sediment barriers, soil stabilization, and wind erosion control measures.

- **Solid Waste Management:** This BMP consists of procedures and practices to minimize or eliminate the discharge of pollutants to storm drain systems or watercourses as a result of creation, stockpiling, or removal of construction site wastes. Measures include education as well as collection, storage, and disposal practices (such as, plywood and tarp directly on streambed).

- **Stream Diversion System:** The system consists of upstream and downstream berms, with a pipe conveying runoff to create a dry working environment for temporary access. The system would be required at specific culvert locations and used during the summer months for one or both summers of the construction period. Each stream diversion system would be removed immediately after in-stream work is completed at the location, and would not be left in place during the wet season (typically beginning October 15). A risk analysis would be done to determine the design flow for the stream diversion system.

Project Feature WQ-3: Permanent Treatment BMPs. Permanent treatment BMPs are as follows:

- **Design Pollution Prevention BMP Strategy:** The goal of an effective erosion control strategy is to maintain the natural pre-construction conditions. Existing vegetation would be preserved to the maximum extent practicable, and areas disturbed by construction activities would be minimized using construction site BMPs. Preservation involves the identification and protection of desirable vegetation to provide erosion and sediment control benefits.

- **Treatment BMP Strategy:** Treatment BMPs would address the post-construction water quality impacts and remove pollutants from stormwater runoff before discharging to receiving waters. The Project currently proposes the use of biofiltration strips as the stormwater treatment devices to meet Project requirements. The locations for the biofiltration strips would be determined during later Project phases.

Land Use and Planning

XI. LAND USE AND PLANNING: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
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?				X

SR 1 within the Project limits is used as the primary access road to the West Marin County coastal areas, providing access to state and national parks, other public parks, beaches, vista points, and visitor-serving facilities. State parks include Point Reyes National Seashore, Tomales Bay Ecological Reserve, Tomales Bay State Park,. Some stretches of SR 1 in the Project limits contain farmland of local importance and some farmland under Williamson Act contracts.

Other land uses include rural residential and clustered areas of visitor-serving commercial and tourist accommodations, such as restaurants, hotels, and bed and breakfast establishments, particularly in the towns of Point Reyes Station and Tomales. No changes in land use would occur for the Project area in the Project vicinity.

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 include the Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2013 to 2040 (ABAG and MTC 2017); Marin Countywide General Plan (Marin County 2007), Marin County's LCP (Marin County 1981), the Coastal Zone Management Act of 1972, and the Point Reyes Station Community Plan (Marin County 2001).

State recreational land uses in the vicinity of the Project corridor include Point Reyes National Seashore, and the Tomales Bay Ecological Reserve, which contains the

Tomales Bay Fishing Area. TCEs would be required within each of these park properties during construction; however, land use within these recreational lands would not change as a result of the Project.

Local Coastal Plan

The Marin County LCP document covers Unit 2 of Marin County's Coastal Zone, the coastal area from Olema north to the Sonoma Marin County border (Marin County 1981). The LCP is a land use plan for Marin 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 Marin County LCP (Marin County 1981). The state-certified LCP is a portion of the Marin County General Plan and includes visual resources policies and recommendations under the "Development" section of the CCA. The Marin County LCP determines the short- and long-term uses of coastal resources in their jurisdiction, consistently with the CCA goals.

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

The policies of the CCA (PRC Division 20) give the highest priority to the preservation and protection of Prime Agricultural Land and Timber Lands. On lands not needed for the above, the next priority goes to public recreation and visitor serving facilities.

Key provisions of the CCA and the Marin County LCP are provided below along with an evaluation of permitting activities of the proposed Project (see Tables 3-2 and 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 above.
Section 30212	For new development projects, provide for public access to the shoreline and along the coast.	The proposed Project would not be considered new development.
Section 30252	Public Access	The proposed Project would maintain reliability of SR 1, bicycle safety pullouts, and public access to the ocean as described above. Public access would not be affected by the proposed Project.
Section 30221	Protect suitable oceanfront land for recreational use.	The Project would not impact public access to recreational facilities or oceanfront land.
Section 30231	Biological activity; water quality	Biological and water quality resources would potentially be temporarily affected by construction of the proposed Project; however, all impacts would be minimized, and the affected areas would be restored to pre-existing conditions. Project features and AMMs would be incorporated to minimize environmental effects to biological resources, wetlands, and water quality.
Section 30233	Diking, filling, dredging of wetlands	The Project would not include diking, filling, or dredging of wetlands. The Project has been designed to avoid wetland impacts as much as possible. Potential wetland impacts would be mitigated to a no-net-loss level during the permitting phase.
Section 30235	Construction altering natural shoreline	The Project would not alter the natural shoreline of the Pacific Ocean. By replacing culverts and right-sizing pipes that convey water from creeks and natural runoff, the Project would reduce erosion and sedimentation of downstream waters and the Pacific Ocean.
Section 30240	ESHAs	Temporary direct impacts to ESHAs, in the form of coastal aquatic resources, would result from culvert replacement, temporary creek diversion system, metal beam guardrail replacement, and shoulder backing, and may also result from stormwater treatment areas. AMMs and Project features would reduce these impacts.

Policy Number	Subject of Policy	Coastal Zone Assessment
Section 30241-30242	Agricultural land	Although Prime Farmland and Williamson Act parcels exist within the Project study area, 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. The Tomales Historic District and the Olema Valley Dairy Ranches Historic District would not be adversely affected by the Project. 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 roadway.
Section 30604	In coastal development permits, include a finding that the development is in conformity with public access and public recreation policies.	The Project would conform with public access public recreational policies, and bicycle safety pullouts for public access.
Section 30609.5	Consider state lands between the first and public roadway to the ocean.	Caltrans would maintain the land devoted to the existing SR 1 highway and its use for public access to the ocean.
Section 30706	Coastal hazards	The purposes of the Project are to maintain continued connectivity for SR 1, and increase reliability.

Table 3-3 Key Provisions of the Marin 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 and bicycle safety pullouts by increasing safety and reliability of SR 1.
ESHAs	Potential adverse effects to ESHAs have been reduced to the extent practicable through Project features, AMMs, and mitigation. The Project would minimize impacts to ESHAs; and mitigation for impacts to ESHAs, in the form of coastal waters, through onsite restoration (Mitigation Measure BIO-2).

Policy Subject	Coastal Zone Assessment
Agriculture	Although Prime Farmland and Williamson Act contracts exist within the Project study area, the Project would have no effect on these resources.
Public Works	The Project would not adversely affect public works in the Project study area. Caltrans would submit the Project to Marin County for review, comments, and findings as to its conformity with the LCP during the coastal development permit process.
Coastal Watersheds	The Project would be consistent with Marin County's LCP, because it would improve highway reliability with culvert replacements that would minimize erosion and sedimentation, which could harm coastal resources.
Visual and Scenic Resources	The Project would not result in adverse effects to scenic vistas/resources. The Project was designed such that scenic and visual qualities of coastal areas would be protected as a resource of public importance. The Project would not alter natural landforms.
Hazards	The purposes of the Project are to maintain continued connectivity for SR 1.
Archaeology	The Project would not result in an adverse effect to archaeological.
Air Quality	No air quality impacts are anticipated 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 Marin County General Plan, Marin County's LCP, the Coastal Zone Management Act, and other local, regional and state policies. The Project would increase safety for vehicles, bicyclists, pedestrians, and coastal access. There would be no impacts.

Mineral Resources

XII. MINERAL RESOURCES: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
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?				X

a-b) No Impact

The Project would not result in the loss of availability of a known mineral resource or result in the loss of availability of a locally important mineral resource recovery site because there are no documented mineral resources within the Project limits (Caltrans 2018d). Therefore, no impacts on mineral resources would result from the Project.

Noise

XIII. NOISE: Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

A *Construction Noise Analysis Report* (Caltrans 2019l), and *Construction-Related Vibration Assessment Report* (Caltrans 2019m) were prepared for the Project. This section summarizes the findings of those reports.

Residential areas are classified as a resource potentially sensitive to construction noise. Within the Project limits, the southern portion of the Project runs through the communities of Five Brooks, Olema, Point Reyes Station, and Bivalve. The northern portion of the Project runs through Tomales, and Fallon. Of these communities, Olema, Point Reyes Station, and Tomales are the most populated and potentially the most sensitive to construction noise. In addition, rural residences are sporadically located along the SR 1 corridor.

Other sensitive receptors in the vicinity of the Project include West Marin Elementary School and West Marin Medical Center, which are both adjacent to the Project on SR 1 in Point Reyes Station, and Walnut Place (West Marin Senior Housing), approximately 0.12 mile northwest of the Project. Tomales Elementary School is approximately 0.1 mile east of SR 1, in Tomales.

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. Ambient noise data collected from the noise investigation show noise levels that are lower than 86 A-weighted decibels (dBA) Lmax at receptor locations from 9:00 p.m. to 6:00 a.m. From 7:00 a.m. to

8:00 p.m., collected ambient data show ambient noise levels higher than 86 dBA Lmax. The equivalent steady state noise level are lower for both day and night hours compared with Lmax. The collected data also show that each community has different time ranges of lowest noise levels.

For paving activities on SR 1, the predicted construction noise levels (Lmax) could reach maximums of 90 dBA in Point Reyes Station, 86 dBA in Tomales, and 97 dBA in Olema. AMMs Noise-1 and -2 describe noise levels and BMPs that would be implemented to reduce noise during construction to less than significant levels.

For culvert replacement work, the predicted construction noise levels (Lmax) are less than 86 dBA at receptor locations, and within the range for ambient noise levels (Lmax) in both Point Reyes Station and Tomales (nearest city to Valley Ford).

The collected data show that each city or community has different time ranges of lowest noise levels (Lmax), but almost all areas (except Tomales) fall within the 9:00 p.m. to 6:00 a.m. (night hours); therefore, it is recommended that construction activities be performed during daytime hours (7:00 a.m. to 8:00 p.m.), with noise control measures provided during construction, as needed.

The Project would not cause a permanent substantial increase in ambient noise level above existing conditions. Construction noise would be temporary; therefore, there would be no permanent noise impact. AMMs Noise-1 and -2 describe noise levels and BMPs that would be implemented to reduce noise during construction to less than significant levels.

b) Less than Significant Impact

Construction activities would not generate excessive groundborne vibration or groundborne noise levels. According to the Construction Vibration Assessment Report (Caltrans 2019m), construction's highest source of vibration would be during use of the vibratory roller; however, the roller would not emit very high vibration levels. Paving activities occurring concurrently with other activities (such as, curb and sidewalk replacement and pedestrian signal replacement/installation) would increase vibration levels immediately adjacent to construction activities. Towns and communities along SR 1 have structures very near the highway, including historic wood and masonry structures within the Project area. The most sensitive is the masonry structure in Point Reyes Station located at the intersection of SR 1 and 2nd Street.

Structure distances of less than 12 feet would experience vibration peak particle velocity (PPV) greater than the Vibration Damage Potential Threshold Criteria (0.5 inch per second) during compaction of asphalt, using a vibratory roller. The PPV (0.575 inch per second) at the masonry structure during road compaction would exceed the Vibration Damage Potential Threshold Criteria (0.25 inch per second) for "historic and some old buildings."

If all equipment were working in the same location, within 15 feet, the total vibration level would exceed the maximum PPV for new or maintained structures (0.5 inch per second). Within 30 feet, the total vibration level would exceed the maximum PPV for historic structures (0.25 inch per second).

AMM Noise-3, Vibration Control Measures, describes BMPs that would be implemented to reduce vibration during construction to less than significant levels.

c) No Impact

The Project is not within the vicinity of a private airstrip or an airport land use plan. There would be no impact.

Avoidance and Minimization Measures

AMM Noise-1: Noise Levels During Construction. Noise from construction activities is not to exceed 86 dBA 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: Noise Best Management Practices. The following BMPs would be implemented during all phases of construction activities to reduce noise:

- Provide public outreach/communication plan throughout the Project for residents to have a source of accurate information, including social media, on Project information and schedules.
- Inform West Marin Elementary School of the construction schedule at their location and to use classrooms at least 100 feet away from SR 1 during construction located adjacent to the school.

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

- Locate staging and storage areas away from sensitive receptors (especially residences).
- Enclose staging and storage areas, if feasible. Use natural barriers (like situating idling equipment behind hills at Valley Ford), when available.
- Consider reducing impact of detours through public information and choosing detours away from residences.
- Do not deliver equipment and materials or dispose of spoils/construction waste between 9:00 p.m. and 6:00 a.m.
- Use quieter alternative methods or equipment (like electricity instead of generator), if feasible.
- Avoid idling of equipment near sensitive receptors.
- Confirm that all equipment used on the construction site, including jackhammers, has exhaust systems and mufflers recommended by the manufacturer as having the lowest noise.

AMM Noise-3: Vibration Control Measures: (1) At locations where any structure is 30 feet or less from SR 1, schedule activities (such as, paving, curb/sidewalk replacement and sign replacement/installation) separately. (2) Prevent idling of other equipment within 100 feet of all structures.

Population and Housing

XIV. POPULATION AND HOUSING: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

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, nor necessitate the construction of replacement housing elsewhere. There would be no impact to population and housing.

Public Services

XV. PUBLIC SERVICES:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

a) No Impact

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

The Project area is in unincorporated Marin County and falls under the jurisdiction of the County Sheriff's Office. The closest sheriff department station is the Point Reyes substation of Marin County Sheriff's Office, located at 101 Fourth Street in Point Reyes Station.

The Marin County Fire Department provides fire protection services for Marin County. The closest stations to the Project area are the Point Reyes Fire Station at 101 Fourth Street in Point Reyes Station, and the Tomales Fire Station at 599 Dillon Beach Rd in Tomales.

Traffic delays could occur as a result of one lane closures and detours during construction. A TMP would be prepared that would provide accommodation for police, fire, and medical services in the local area during construction (see AMM TRANS-1 in the Transportation and Traffic section).

Recreation

XVI. RECREATION:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
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?				X

Five state or local public parks, two fishing areas, one preserve, and one ecological resource area are located within or near a 0.5-mile radius of the Project. These resources include Whitehouse Pool Park located near SR 1 at the crossing of Lagunitas Creek Bridge in Point Reyes Station, Point Reyes Park within Point Reyes Station, Point Reyes National Seashore to the west and south, and Tomales Bay State Park, Tomales Bay Ecological Reserve, Keys Creek and Tomales Bay Fishing Areas, and Eldrid Preserve to the northwest (see Figure 1). Keys Creek fishing area, Tomales Bay State Park, Point Reyes Park, and Eldrid Preserve would not be affected by the Project.

a) No Impact

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

b) No Impact

The Project would not include recreational facilities or require the construction of additional recreational facilities. TCEs would be required within recreational lands; however, temporary use of these properties during construction would have no impact on recreation and would not require construction or expansion of new recreation facilities. Therefore, there would be no impact.

Transportation and Traffic

XVII. TRANSPORTATION: Would the project:

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

SR 1 in Marin County is a paved, two lane rural conventional highway. SR 1 is part of the Pacific Coast Bicycle Route. There is limited, but daily, bus services along SR 1. Within the vicinity of the Project location, traffic volumes are 4,100 annual average daily traffic, as of 2017.

Marin Transit runs a bus service route from San Rafael to Inverness identified as the 68 West Marin Stagecoach (North). The route passes through the southern portion of the Project area from south of Five Brooks, to Point Reyes Station (Marin Transit 2019). In addition, school bus routes associated with the Shoreline Unified School District run on SR 1 through the Project corridor.

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 2040, adopted in July 2017, serves as the San Francisco Bay Area's Regional Transportation Plan and Sustainable Communities Strategy.

Local transportation planning includes the Transportation Authority of Marin (TAM), which is designated as both the Congestion Management Agency and the Transportation Sales Tax Authority for Marin County. TAM is responsible for managing various transportation projects and programs in Marin County, receiving federal, state, regional, and local funds, while working closely with all 11 cities and towns and the County.

The proposed Project does not conflict with any plans, ordinances, or policies related to circulation systems, including the TAM Congestion Management Program (TAM 2019).

SR 1 is eligible for State Scenic Highway designation throughout the Project limits and is located within the Marin County Coastal Zone. Section 30254 of the CCA calls for SR 1 in rural areas of the Coastal Zone to remain a scenic two lane road.

a) Less than Significant Impact

The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The Project would maintain and improve the existing SR 1 two lane roadway and, therefore, would be in compliance with Section 30254 of the CCA.

The Project would maintain all existing roadway features and would not permanently alter the circulation system. Sidewalks and curb ramps that would be upgraded as part of the Project would be temporarily unavailable for public use during construction, although access to all businesses would be maintained, and detours would be provided as necessary.

The Project would not alter or reduce transit service provided by the 68 West Marin Stagecoach (North) on SR 1. The transit services and school bus routes would remain available throughout construction. Although short-term localized traffic congestion and delays may occur, the impact would be temporary.

As discussed in AMM TRANS-1, a TMP would be developed to minimize potential effects from construction to motorists, bicyclists, or pedestrians. The TMP would include elements, such as detour and haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing, to reduce impacts to local residents as much as feasible and maintain access to businesses in the local area. Therefore, there would be no permanent impact to components of the transportation system, so impacts to traffic and transportation would be less than significant.

b) Less than Significant Impact

The Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The Project would have no permanent impact on vehicle miles traveled. Under Section 15064.3, subdivision b transportation projects that have

no impact on vehicle miles traveled should be presumed to cause a less than significant transportation impact.

c) No Impact

The Project would not increase hazards due to a geometric design feature. The Project does 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 throughout the Project corridor. One-way traffic control would be required during construction. The Project could also cause short-term delays within the Point Reyes Station as a result of temporary detours required for construction of Project components (see Section 2.5.1, Construction Staging and Traffic Management). Traffic would be detoured in Point Reyes Station; however, pedestrian access to businesses would be provided. Once construction activities are completed, detours would be removed.

Under the TMP (see AMM TRANS-1), medical and emergency vehicles would be able to continue to use routes along the Project corridor to serve fire, medical, and law enforcement purposes. Flaggers would give priority to emergency vehicles. The impact would be less than significant.

Avoidance and Minimization Measure

AMM TRANS-1: Traffic Management Plan: To minimize potential effects from construction activities to motorists, bicyclists, or pedestrians using local streets, a TMP would be developed by Caltrans and implemented throughout construction. The TMP would include public information, motorist information, incident management, construction, and alternate routes or detours. The TMP would also include elements, such as detour and haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing, to reduce impacts to local residents as much as feasible and maintain access to businesses in the local area. The TMP would also provide access for police, fire, and medical services in the local area. Detour routes would be planned in coordination with Caltrans and Marin County, and would

include notices to emergency service providers, transit operators, and the public in advance.

Tribal Cultural Resources

XVIII. 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:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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				X
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.				X

Caltrans contacted the Native American Heritage Commission on May 11, 2018, requesting that they conduct a search of their Sacred Land Files to determine if there were known historically significant sites within or near the APE for the Project. The Native American Heritage Commission responded on May 15, 2018, with a list of Native American parties and negative results from the Sacred Land File search. On May 21, 2018, a letter initiating Section 106 and CEQA consultation was sent to Mr. Greg Sarris, Chairperson of the Federated Indians of Graton Rancheria. On December 4, 2018, Caltrans met with representatives from Federated Indians of Graton Rancheria to discuss the Project and Native American concerns regarding the Project area. No tribal resources were identified during consultation (Caltrans 2019f).

a-b) <u>No Impact</u>

The Project would not cause a substantial adverse change in the significance of a tribal cultural resource. In 2019, an HPSR (Caltrans 2019g) was developed to identify historic properties in the APE developed by Caltrans. No tribal cultural resources were reported in record searches or in consultation with Native American groups and individuals. Based on this report, there would be no impact.

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

Utilities and Service Systems

XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
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?				X
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?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Utility providers along the Project corridor include Pacific Gas and Electric, AT&T, North Marin Water District, and the Tomales Village Community Service District. Potable water for Point Reyes Station and nearby communities is supplied through the Point Reyes Treatment Plant, which is operated by North Marin Water District. The Tomales Village Community Service District operates a local waste water treatment system for the community of Tomales. There is no wastewater service provider for the community of Point Reyes Station.

a) Less than Significant Impact

The proposed Project would not result in the relocation or construction of new or expanded Pacific Gas and Electric, AT&T, North Marin Water District, or Tomales Village Community Service District facilities. The proposed rectangular rapid flashing beacon adjacent to West Marin Elementary School would connect to and use existing electrical service; therefore, the beacon would not require the construction of new electrical facilities.

Utility relocation may be required and utility verification would be conducted during later Project phases. If needed, Caltrans would coordinate with the appropriate utility provider; therefore, the impact would be less than significant.

b, c, d, e) No Impact

The proposed Project would not generate a demand for potable water supplies or the services of a wastewater treatment provider. Therefore, there would be no impact.

The proposed Project would not result in any substantial demands for solid waste disposal and would comply with federal, state, and local statutes regarding the disposal of solid waste. Implementation of Project Features UTI-1 and -2 would require the proper disposal of construction trash. There would be no impact.

Project Features

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

Project Feature UTI-2: Treated Wood Waste. Wood removed from metal beam guardrails will be considered treated wood waste, and must be disposed of by the contractor pursuant to Caltrans standard specifications.

Wildfire

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?				X
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?				X
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?				X

The Project is located within both State Responsibility Areas and Federal Responsibility Areas for wildfire prevention and suppression. Areas of the Project within the Federal Responsibility Areas are located in the southern portion of the Project area, south of Point Reyes Station. The Project is primarily located in areas of moderate fire hazard severity zones within State Responsibility Areas (CAL FIRE 2007). However, the southern portion of the Project area, south of the stretch of SR 1 between Olema and Five Brooks, is designated a high fire hazard severity zone, according to the metadata available on the Marin County online geographical information system application, Marin GeoHub (Marin County 2019). The remainder of the southern portion and the entirety of the northern portion of the Project area are designated moderate fire hazard severity zones, with a few areas in the vicinity of Point Reyes Station being designated non-wildland/non-urban.

Figures FIRE-1 and FIRE-2 show the fire hazard severity zones in the Project area (Marin County 2019).

a) Less than Significant Impact

The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. A TMP (see AMM TRANS-1 in the Transportation and Traffic section) would be developed during later Project phases that would identify

traffic diversion, staging and alternative routes. Emergency response times are not anticipated to change during construction because the TMP would provide measures to ensure priority for emergency vehicles during one-way traffic control. The TMP would provide instructions for response and evacuation in an emergency. In addition, the Project would not conflict with any other emergency response or evacuation plan. The impact would be less than significant.

b, c, d) No Impact

The Project would not exacerbate wildfire risks, require the installation or maintenance of infrastructure that may exacerbate wildfire risk, or expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. The Project proposes to rehabilitate existing facilities on SR 1; therefore, it does not involve occupation, or habitable structures, and does not include the installation of associated infrastructure that would exacerbate wildfire risk. There would be no impact.

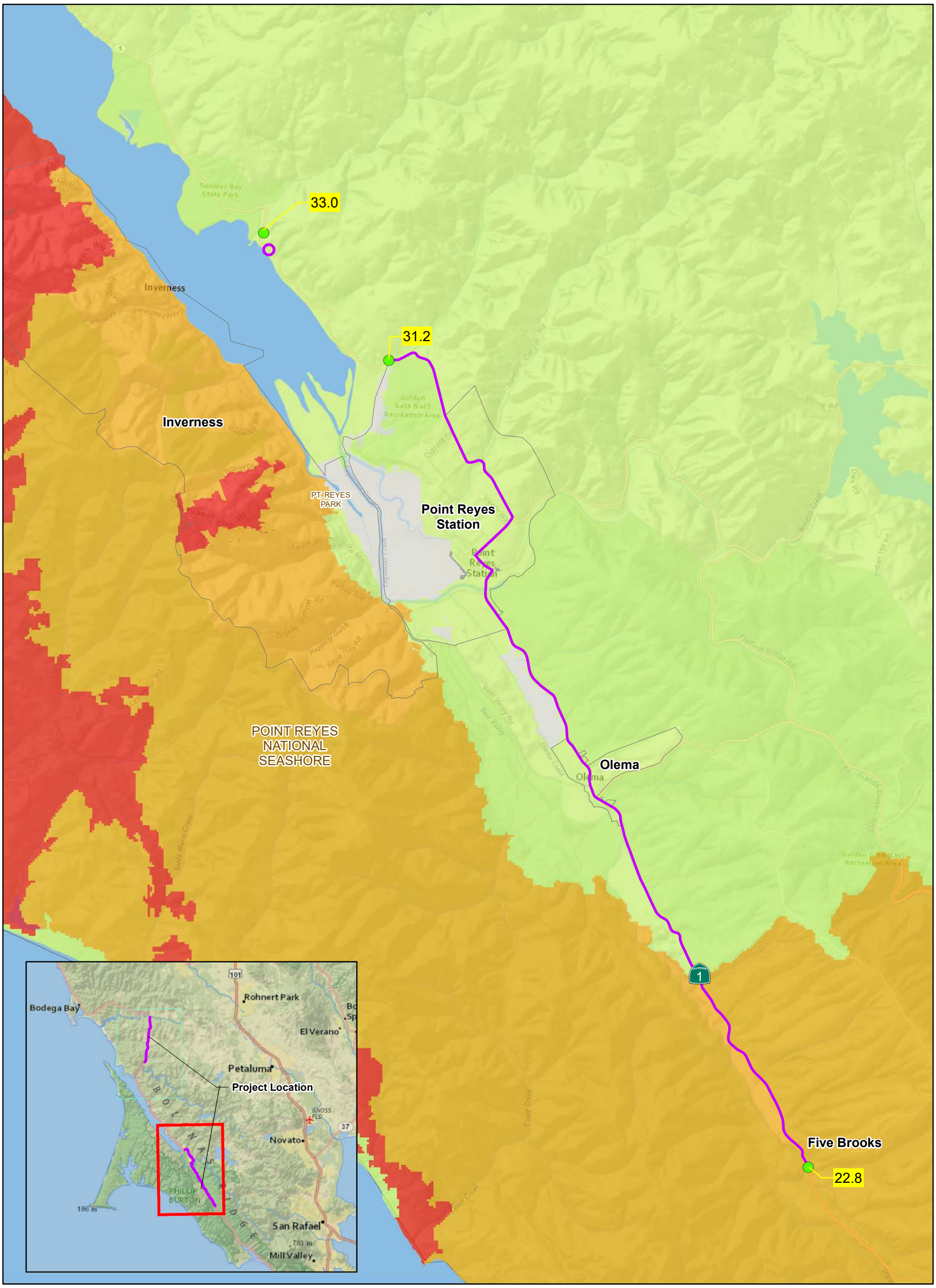
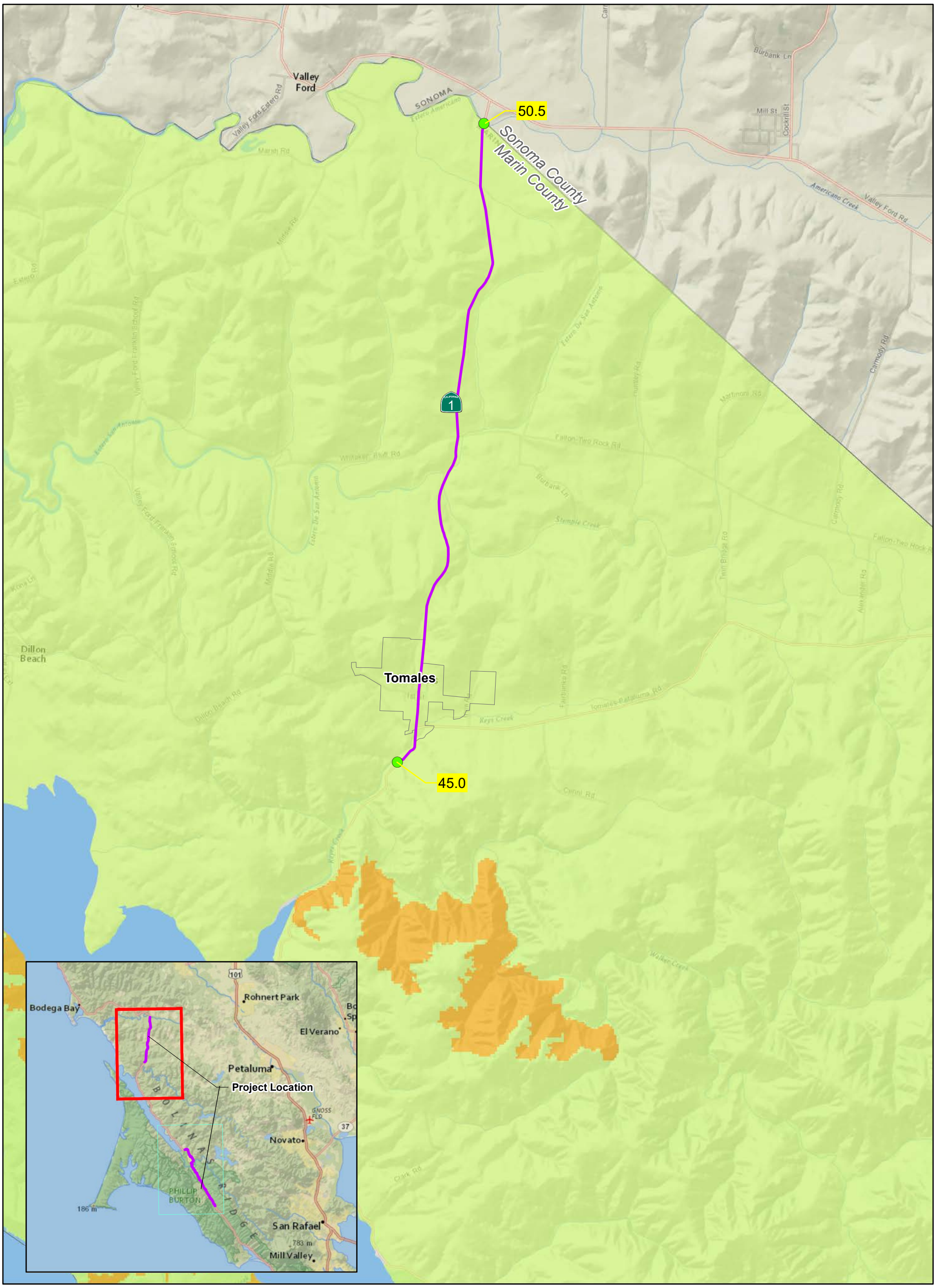


Figure Fire 1
Fire Hazard Severity Zones
State Route 1 Capital Preventive Maintenance Project (CAPM)
EA 04-1J960, 04-MRN-1-Post Mile 22.8/33.0, 45.0/50.5
Marin County, California



LEGEND

- Post Mile
- Project Area

Fire Hazard Severity Zones

- Non-Wildland/Non-Urban
- Moderate
- High

N

0 4,000 8,000

Feet

Figure Fire 2
Fire Hazard Severity Zones
State Route 1 Capital Preventive Maintenance Project (CAPM)
EA 04-1J960, 04-MRN-1-Post Mile 22.8/33.0, 45.0/50.5
Marin County, California

Mandatory Findings of Significance

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

a) Less than Significant Impact with Mitigation

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 have temporary, minor construction-related impacts. The Project has the potential to significantly impact riparian habitat and ESHAs; however, with the implementation of the Project features and AMMs, and Mitigation Measures BIO-1 and BIO-2, these potentially significant impacts would be reduced to less than significant levels with mitigation.

b) Less than Significant Impact

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

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

Project Name	Location	Characteristics	Status
Near Point Reyes Station, at Lagunitas Creek Bridge No. 27-0023	SR 1 at PM 28.5	Bridge replacement	Completed NEPA and CEQA
Culvert Rehabilitation	SR 1 from PMs 0.1 to 45.36	Culvert rehabilitation	Under Environmental Review Phase
In Marin County, at Coyote Creek, Olema Creek, Lagunitas Creek, and Eskoot Creek along SR 1	SR 1 from PMs 0.42 to 28.56	Railing repair/upgrade, patch spell on bridge column, remove vegetation, paint bridge identification	Under Environmental Review Phase
In Marin County at Various Locations from 0.7 mile north of Stinson Beach to 0.5 mile north of Walker Creek Bridge	SR 1 from PMs 13.1 to 44.9	Drainage restoration period	Under Environmental Review Phase
In Marin County, near Five Brooks, at Giacomini Creek Bridge	SR 1 from PMs 22.8 to 22.8	Plant establishment period	Under Environmental Review Phase

In analyzing the Project's cumulative environmental effects, the analysis proceeds as follows: (1) determine which resources would be significantly impacted by the Project; (2) determine whether there is a detrimental condition or deterioration in health of a resource within the context of impacts from past, present, and other reasonably foreseeable future actions; and (3) determine whether, collectively, the Project and the foreseeable condition combine to result in a cumulative impact.

The Project involves the rehabilitation of existing infrastructure along a transportation corridor. The Project would occur primarily within the Caltrans ROW with the use of TCEs during construction. The Project would not convert lands to a new or different uses, increase roadway capacity, induce growth, or otherwise change land patterns and uses. 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 Initial Study/Mitigated Negative Declaration identifies temporary construction-related impacts on aesthetics, air quality, biological resources, energy, geology/soils, GHG emissions, hazards/hazardous materials, hydrology/water quality, noise, transportation/traffic, utilities/service systems, and wildfire. Because the effects of the Project are construction related, if other highway improvement projects along the SR 1 occur within a similar timeframe, cumulative effects may occur (such as, traffic management). However, Caltrans routinely coordinates with regional

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

c) Less than Significant Impact

Intermittent night work would occur throughout the proposed Project corridor with the potential to impact residences and businesses located throughout the area; however, implementation of Project features and AMMs would address dust, noise, and traffic-related impacts. Therefore, 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

A public community meeting was held on April 2, 2019, in Point Reyes Station at The Dance Palace. Caltrans staff were present to provide information to the public about the Project and community input was recorded. The meeting was held in an open house format, with presentation boards available for review that showed the Project areas, proposed Project components, and Project schedule. A slideshow included additional information regarding the Project played on a recurring loop during the open house. The meeting was attended by 27 members of the public.

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

Organization(s)	Date	Topic
Native American Heritage Commission	May 11, 2018	Request for search of Sacred Lands File
	May 15, 2018	NAHC responded with list of Native American parties
Native American Consultation	May 21, 2018	Letter to Federated Indians of Graton Rancheria requesting input
	December 4, 2018	Meeting held with Federated Indians of Graton Rancheria to discuss the Project.
Tomales Regional History Center	September 17, 2018	Letter requesting input; response received October 9, 2018
Jack Mason Museum of West Marin History	September 17, 2018	Letter requesting input; response received October 9, 2018
Golden Gate National Recreation Area	September 17, 2018	Letter requesting input; response received October 9, 2018
Marin History Museum	September 17, 2018	Letter requesting input, no response received
Point Reyes National Seashore	September 17, 2018	Letter requesting input, no response received
State Historic Preservation Officer	June 13, 2019	Coordination regarding historic resources

Organization(s)	Date	Topic
California Department of Fish and Wildlife	January 10, 2019 and October 4, 2019	Requested technical assistance and consultation for impacts to waters of the state, riparian habitat, and rare plants
California Department of Fish and Wildlife	October 16, 2019	Site visit to discuss potential impacts to CDFW jurisdictional riparian areas and state-listed species
U.S. Fish and Wildlife Service	January 10, 2019 and August 15, 2019	Requested technical assistance and formal consultation for impacts to special-status species
U.S. Fish and Wildlife Service	August 30, 2019	Site visit to discuss potential impacts to special-status species
National Marine Fisheries Service	December 5, 2019	Requested technical assistance from NMFS via email regarding the possibility of a “no effect” determination for listed NMFS species and to schedule a site visit to discuss this determination.
Marin County	January 14, 2019	Caltrans attended Marin County meeting to discuss safe routes to schools

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 Preparers and Reviewers

Organization Name	Role
Caltrans	
Stefan Galvez-Abadia	District Division Chief, Division of Environmental Planning and Engineering
Inho “Eddie” Kim	Project Management – North (Marin)
Helen Blackmore	Branch Chief, Architectural History
Robert Blizard	Branch Chief, , Office of Biological Sciences and Permit
Manny Caluya	Branch Chief, Design
Susan Lindsay	Branch Chief, Office of Landscape Architecture
George Lo	Design Senior, Design
Arnica MacCarthy	Branch Chief, Office of Environmental Analysis
Wilfung Martono	Branch Chief, Senior Transportation Engineer, Stormwater Design D
Mark Morancy	District Branch Chief, Office of Hydraulic Engineering
Chris Risden	Branch Chief, Geology Services Branch B
Kathryn Rose	Branch Chief, Archaeology
Wesley Bexton	Landscape Associate, Landscape Architecture
Sophie Kolding	Associate Biologist, Biological Sciences and Permits
Daisy Laurino	Air and Noise Analyst, Air Quality and Noise
Irene Liu	Project Engineer, Design
Kristina Montgomery	Associate Environmental Planner, Archaeology
Ber-Lin Wei	Project Engineer, Design
CH2M	
Erika Sawyer	Project Manager
Jasmin Mejia	Senior Environmental Planner
Loretta Meyer	Senior Environmental Planner
Julie Petersen	Environmental Planner
Holly Barbare	Biologist
Amy Hiss	Biologist
Mia Marek	Biologist

Organization Name	Role
Chris Archer	Geographic Information System
Clarice Ericsson	Publishing Technician
Austen Sandifer	Editor
Stantec	
David Lundgren	Senior Principal
Danielle Althaus	Environmental Planner

Chapter 6 Distribution List

The Initial Study with proposed Mitigated Negative Declaration will be circulated by February 24, 2020, 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

San Francisco Bay Regional Water Quality Control Board

California Department of Fish and Wildlife

California Department of Parks and Recreation

California Coastal Commission

Governor's Office of Planning and Research

Transportation Authority of Marin

Office of Planning and Research

Marin County Clerk

Elected Officials

Senator Dianne Feinstein

Senator Kamala D. Harris

Senator Mike McGuire

Congressman Jared Huffman

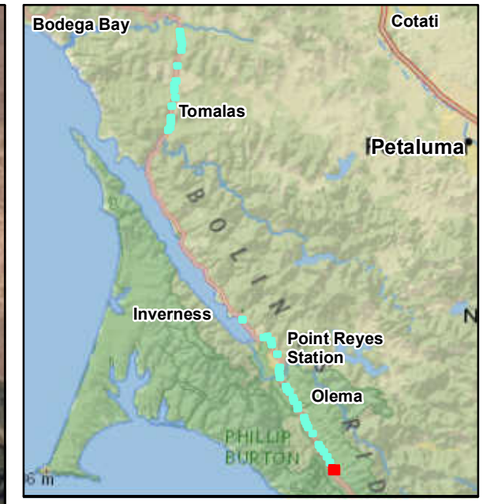
Assembly Member Marc Levine

Supervisor Dennis Rodoni

Sheriff Robert T. Doyle

Appendix A Project Component Figures





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

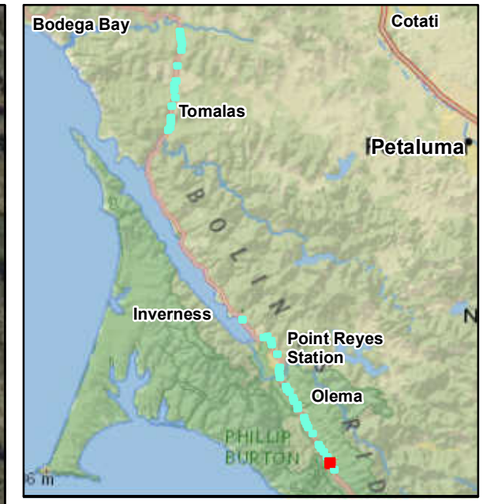
N

0 100 200
Feet

Caltrans

Appendix A
Map 01 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

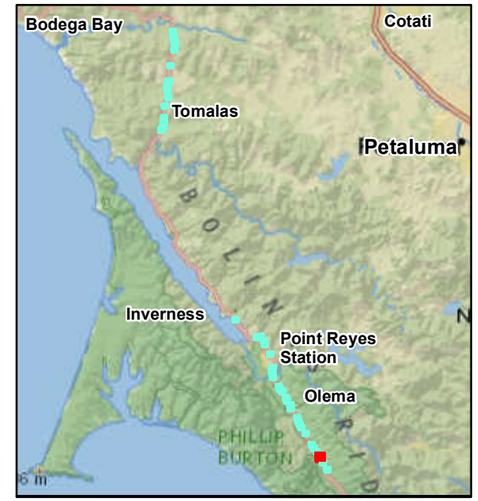
N

0 100 200
Feet

Caltrans

Appendix A
Map 02 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

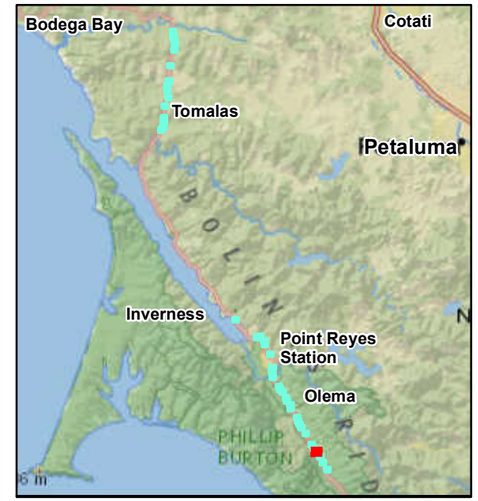
N

0 100 200
Feet

Caltrans

Appendix A
Map 03 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

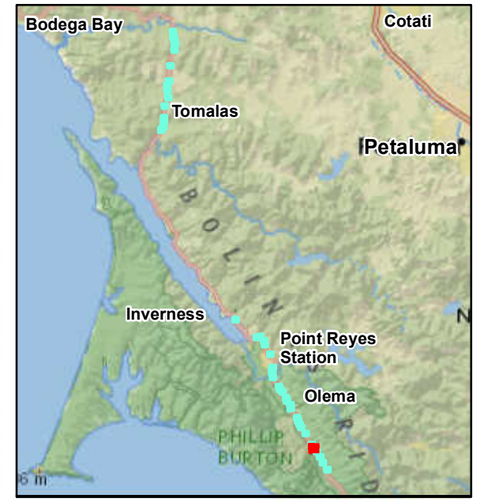
N

0 100 200
Feet

Caltrans

Appendix A
Map 04 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Replace Culvert
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

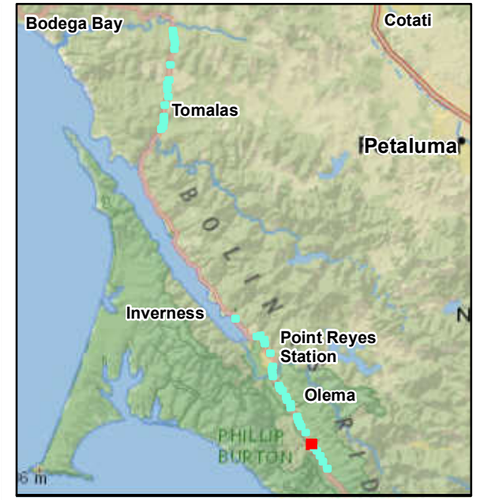
N

0 100 200
Feet

Caltrans

Appendix A
Map 05 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

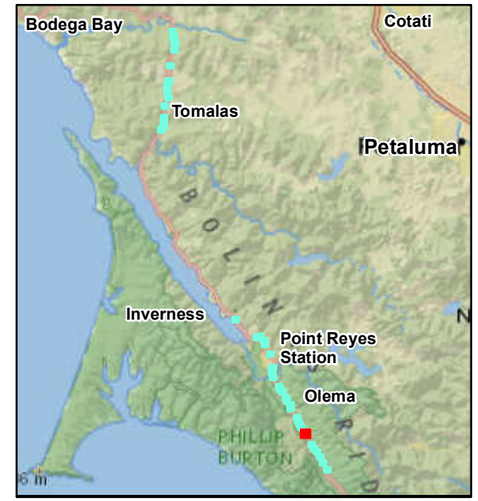
N

0 100 200
Feet

Caltrans

Appendix A
Map 06 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

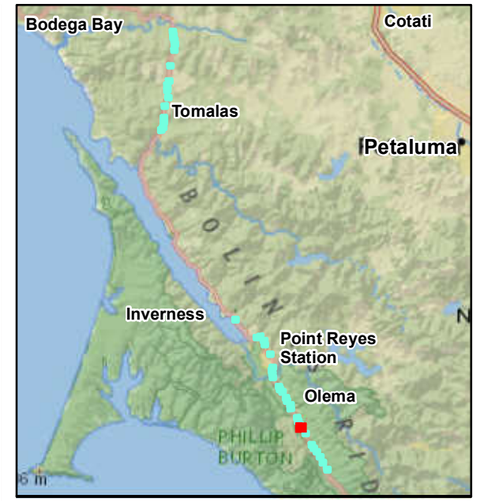
N

0 100 200
Feet

Caltrans

Appendix A
Map 07 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

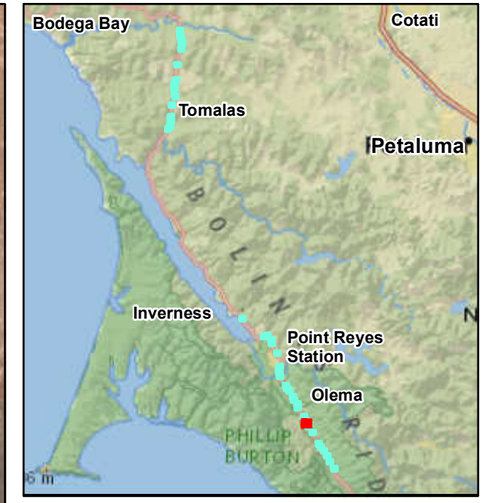
N

0 100 200
Feet

Caltrans

Appendix A
Map 08 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

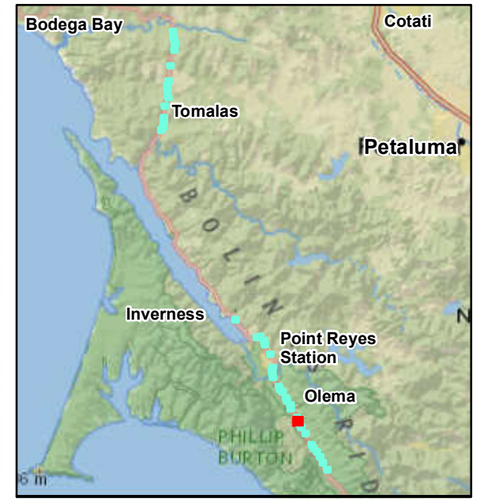
N

0 100 200
Feet

Caltrans

Appendix A
Map 09 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

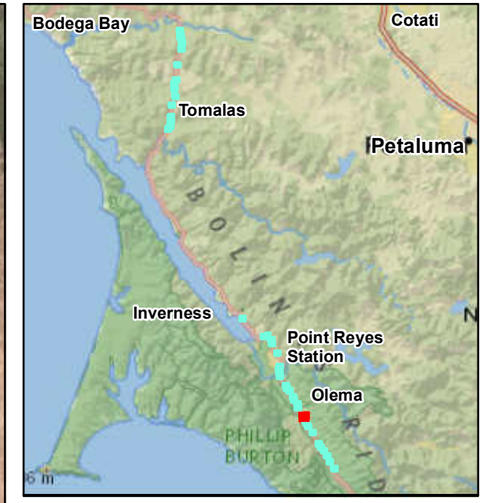
N

0 100 200
Feet

Caltrans

Appendix A
Map 10 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

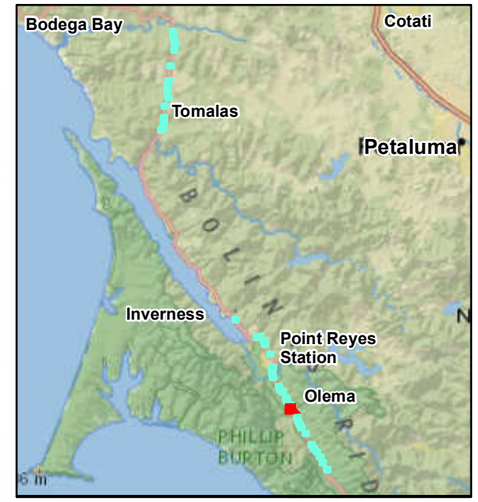
N

0 100 200
Feet

Caltrans

Appendix A
Map 11 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Asphalt Concrete Dike

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

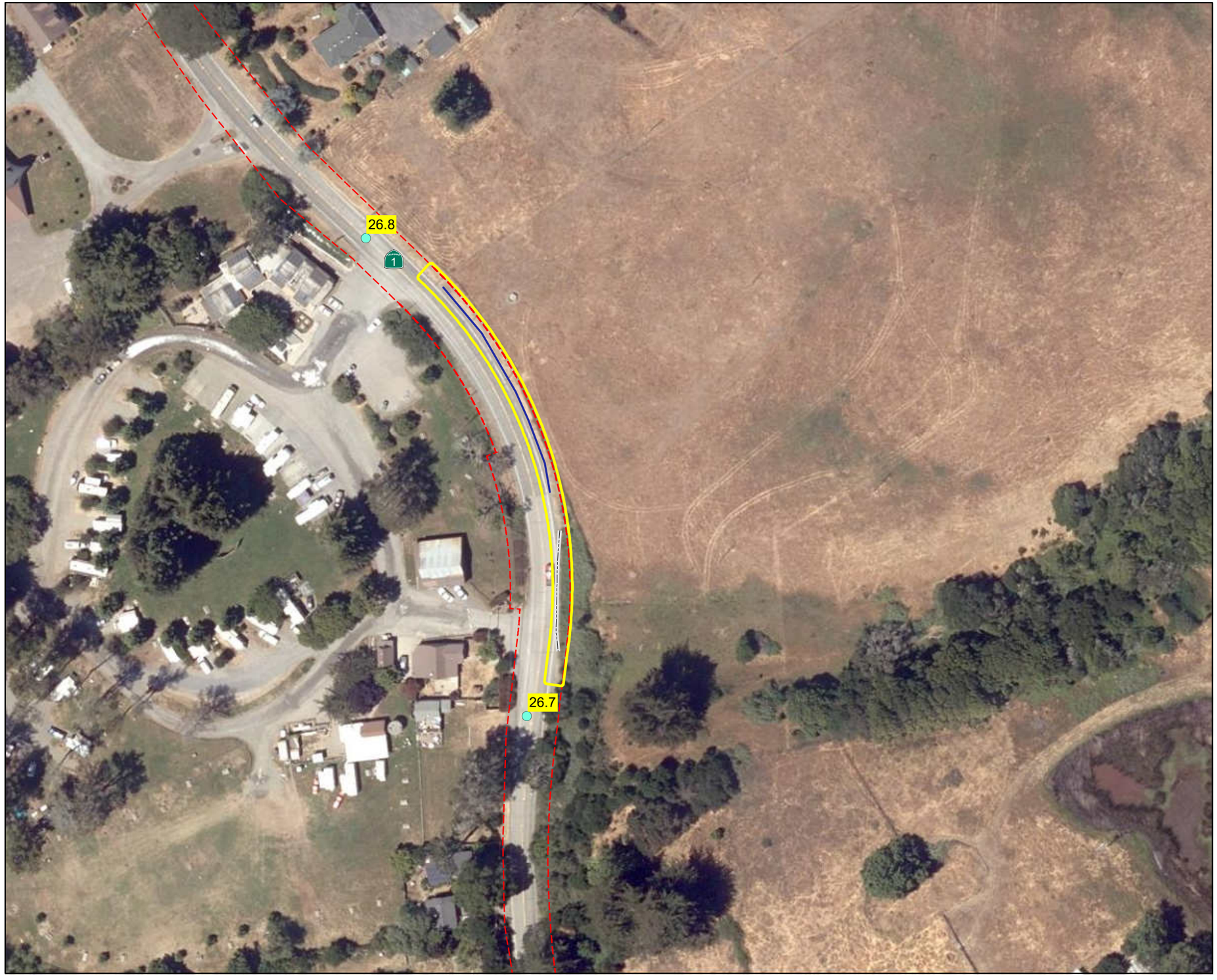
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

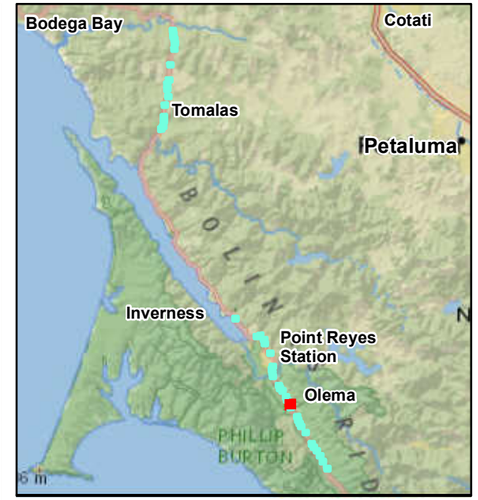
N

0 100 200
Feet

Caltrans

Appendix A
Map 12 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Asphalt Concrete Dike
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

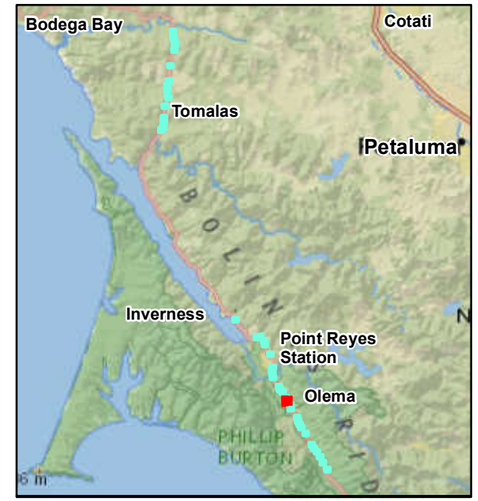
N

0 100 200
Feet

Caltrans

Appendix A
Map 13 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Asphalt Concrete Dike

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

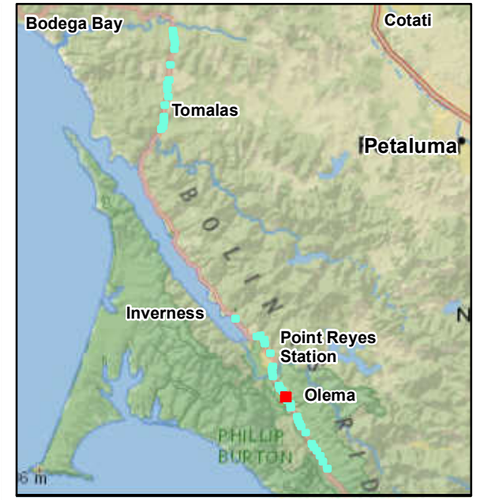
N

0 100 200
Feet

Caltrans

Appendix A
Map 14 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Asphalt Concrete Dike
- Replace Midwest Guardrail System
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

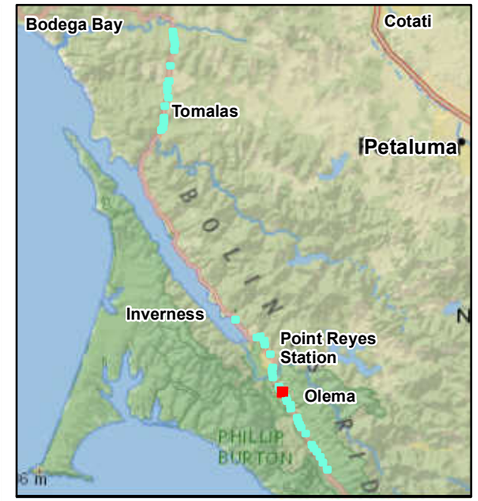
N

0 100 200
Feet

Caltrans

Appendix A
Map 15 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Asphalt Concrete Dike

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

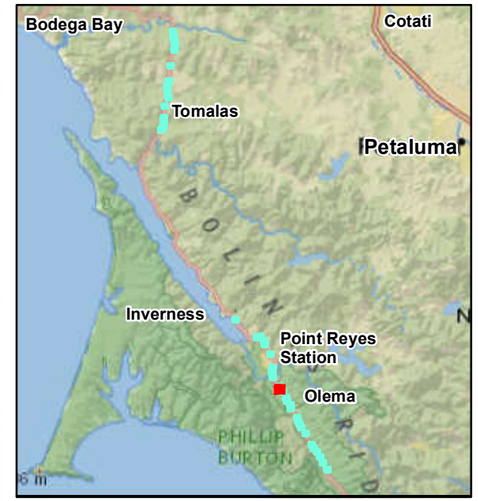
N

0 100 200
Feet

Caltrans

Appendix A
Map 16 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Asphalt Concrete Dike
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

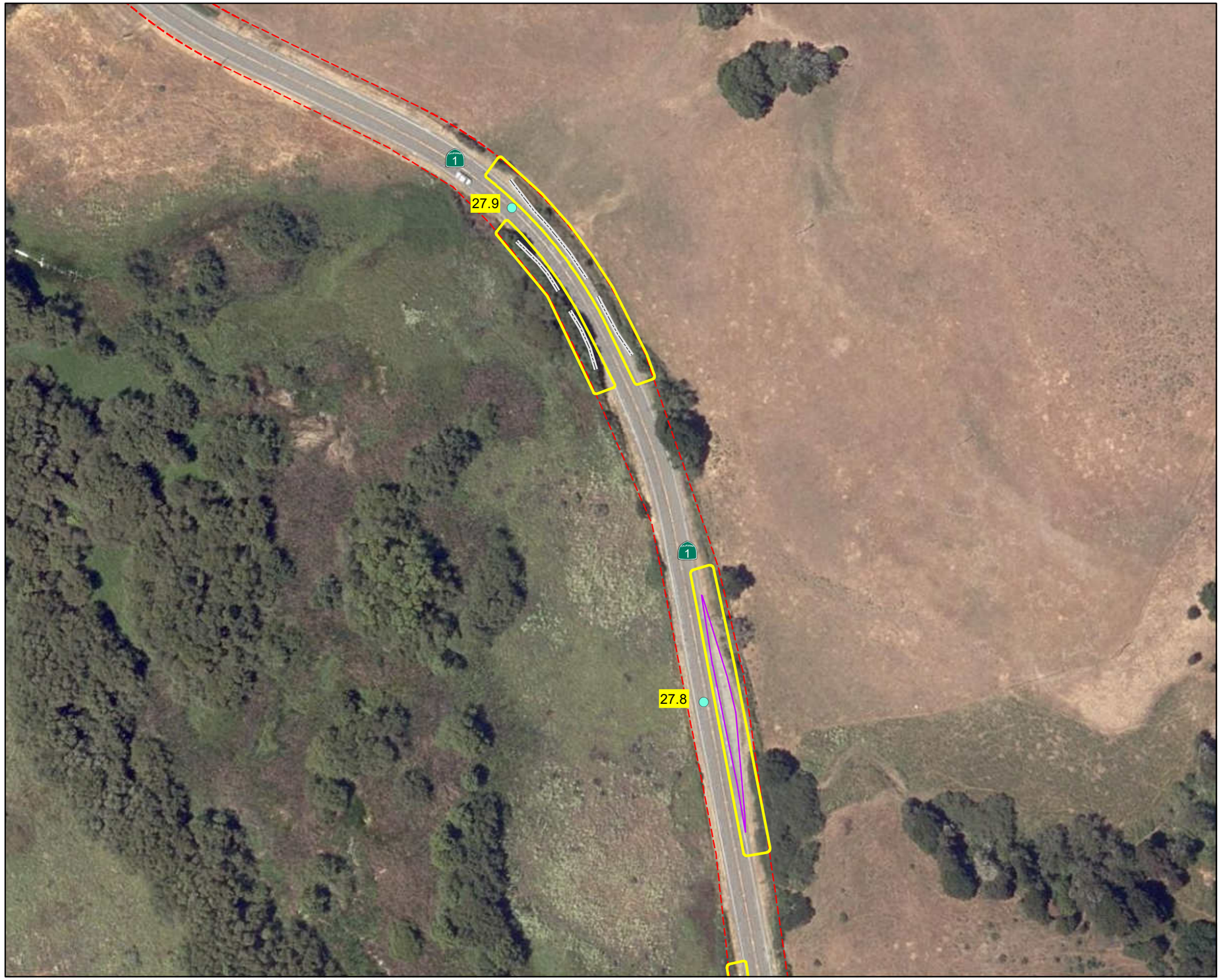
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

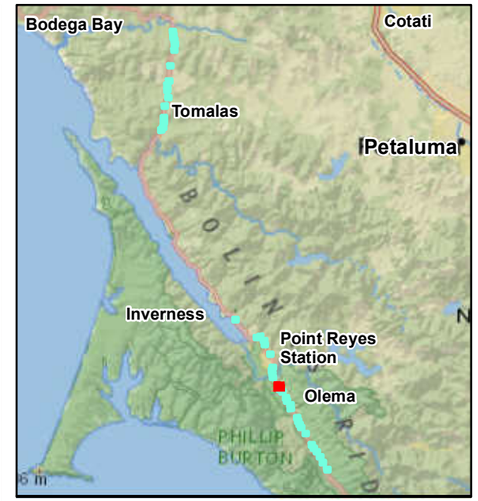
N

0 100 200
Feet

Caltrans

Appendix A
Map 17 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

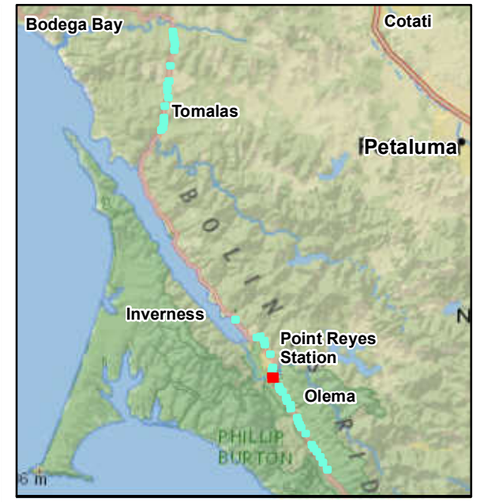
N

0 100 200
Feet

Caltrans

Appendix A
Map 18 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

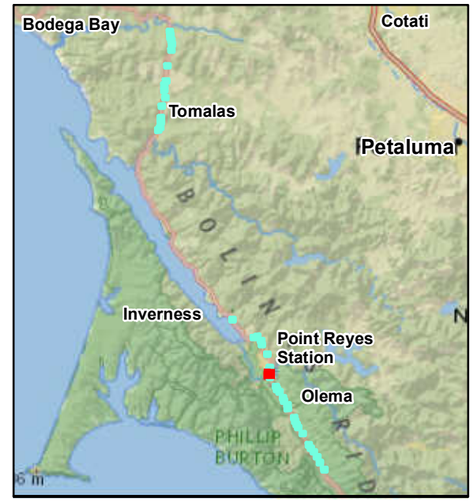
N

0 100 200
Feet

Caltrans

Appendix A
Map 19 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Upgrade Curb Ramps
- Gutter
- Detour Routes

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

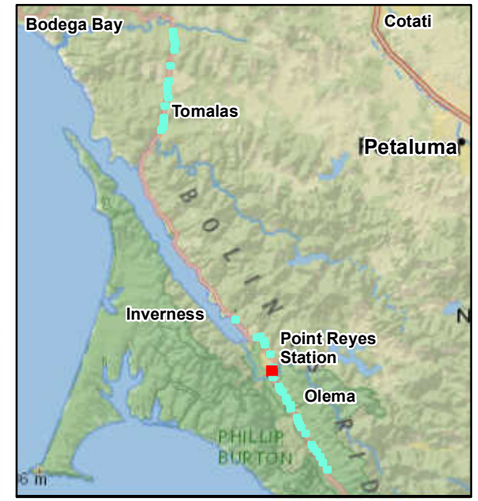
N

0 100 200
Feet

Caltrans

Appendix A
Map 20 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Upgrade Curb Ramps
- Gutter
- Drainage Inlet
- Upgrade Crosswalk
- Repair/Modify Sidewalk
- Detour Routes

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

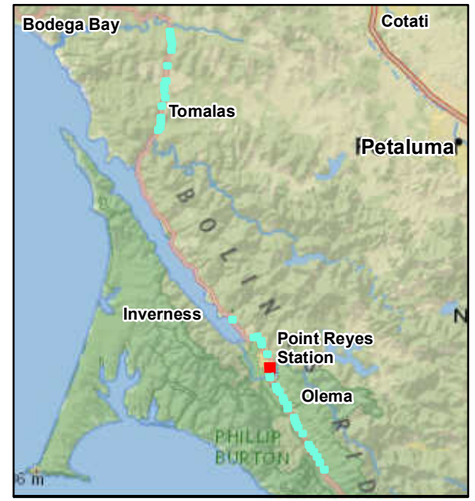
N

0 100 200
Feet

Caltrans

Appendix A
Map 21 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Upgrade Curb Ramps
- Gutter
- Upgrade Crosswalk
- Repair/Modify Sidewalk

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

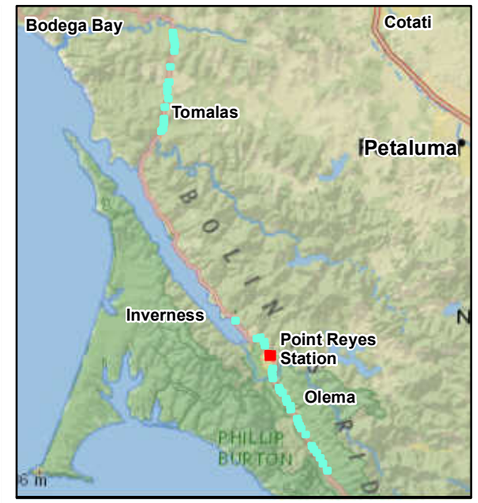
N

0 100 200
Feet

Caltrans

Appendix A
Map 22 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

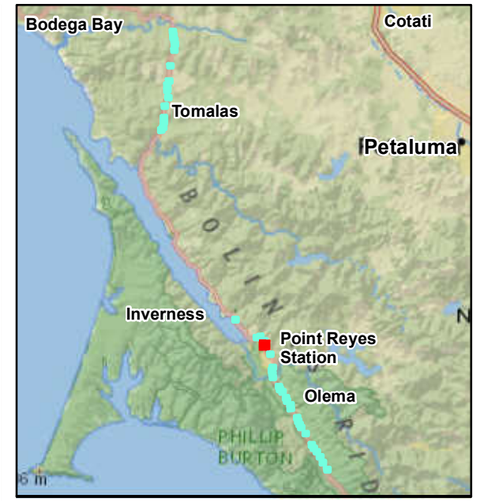
N

0 100 200
Feet

Caltrans

Appendix A
Map 23 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

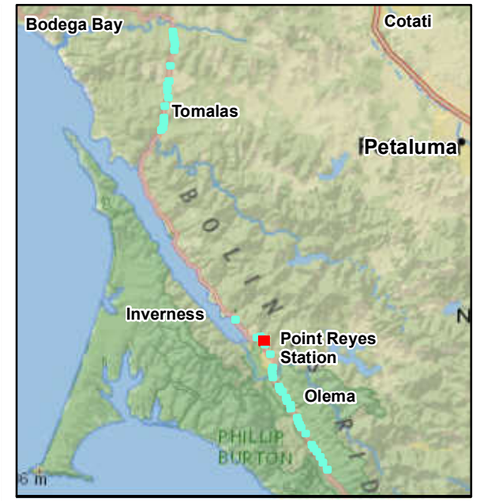
N

0 100 200
Feet

Caltrans

Appendix A
Map 24 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

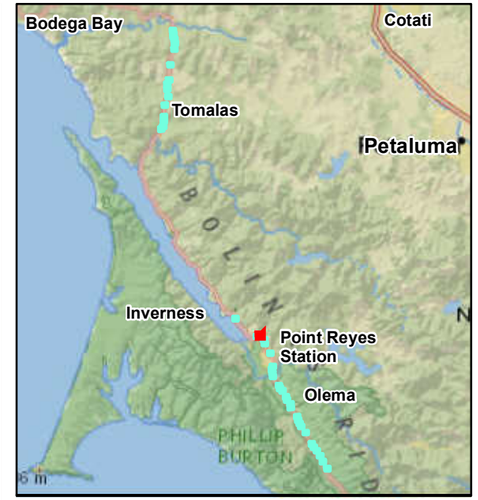
N

0 100 200
Feet

Caltrans

Appendix A
Map 25 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

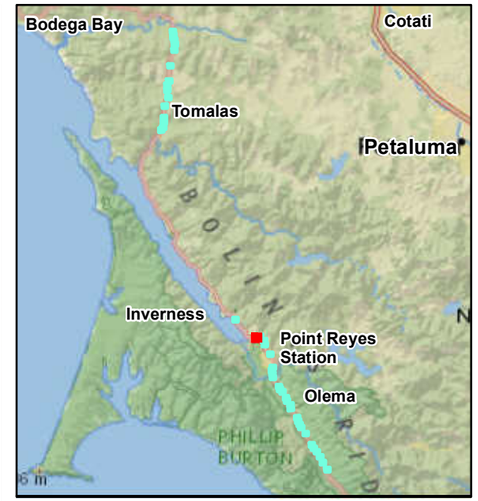
N

0 100 200
Feet

Caltrans

Appendix A
Map 26 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

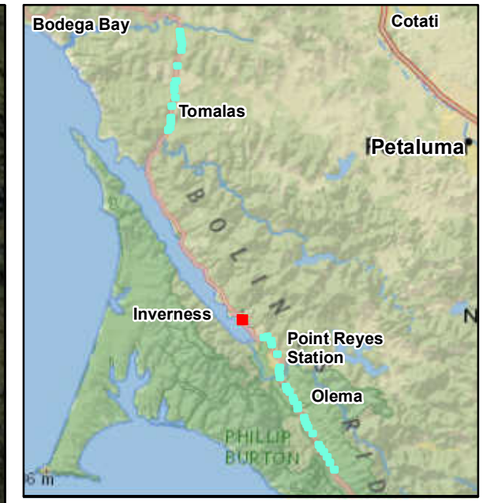
N

0 100 200
Feet

Caltrans

Appendix A
Map 27 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

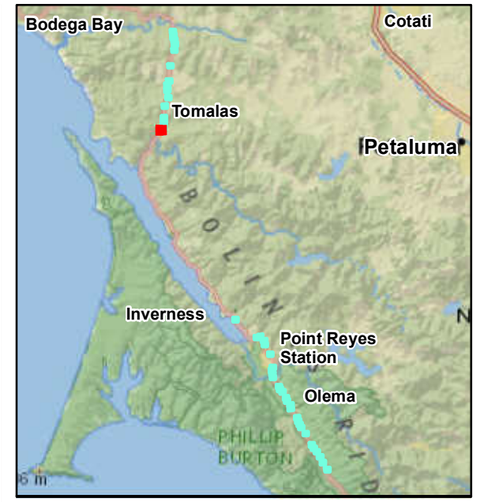
N

0 100 200
Feet

Caltrans

Appendix A
Map 28 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

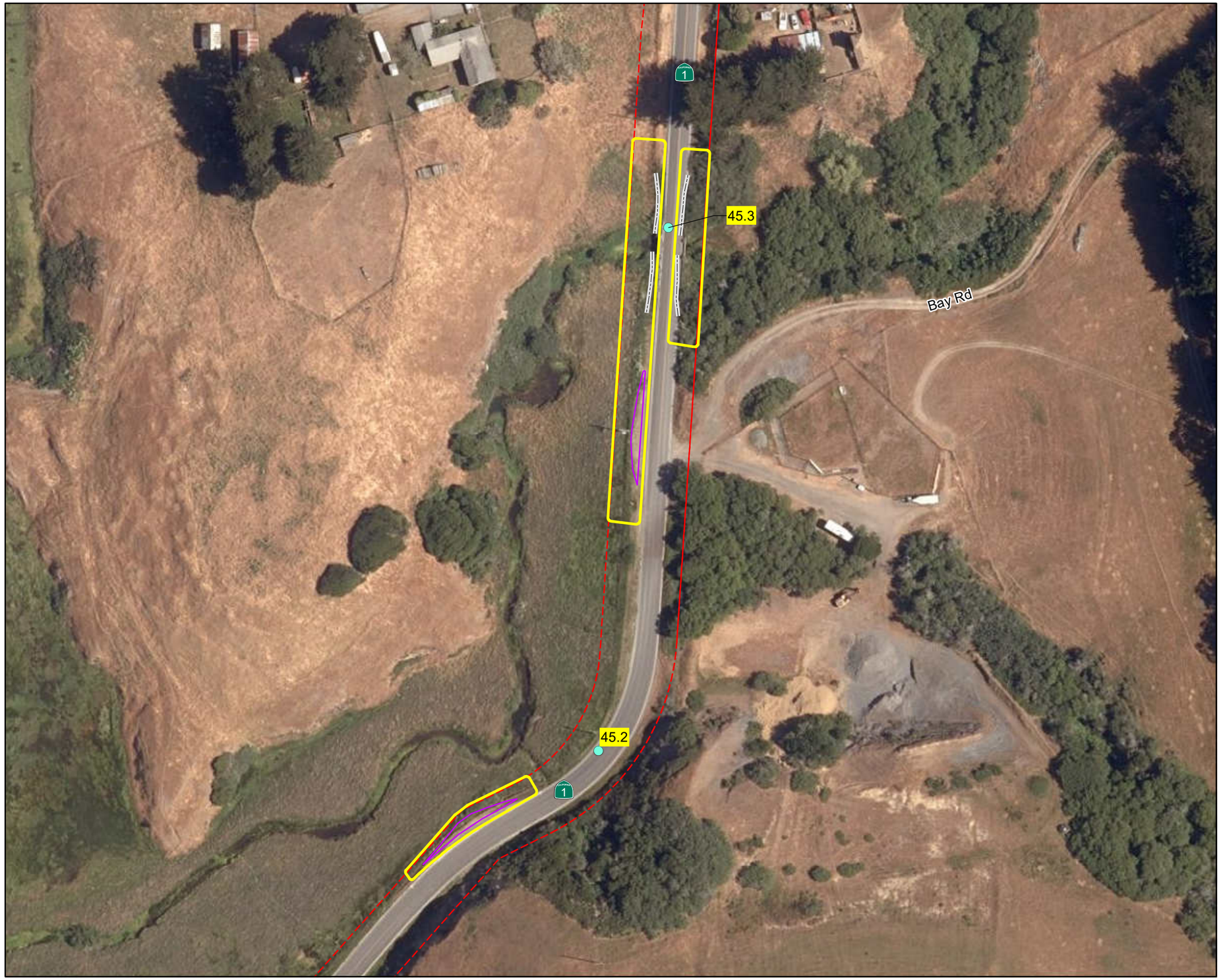
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

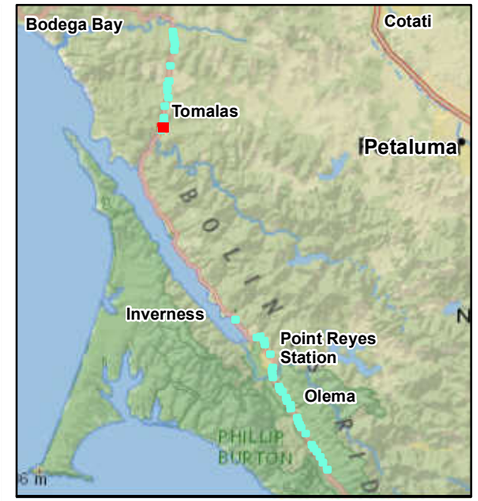
N

0 100 200
Feet

Caltrans

Appendix A
Map 29 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

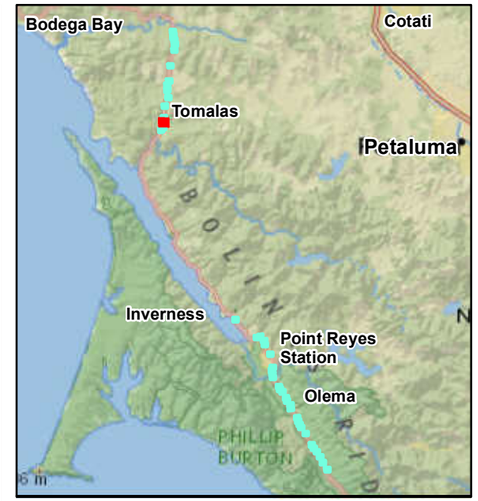
N

0 100 200
Feet

Caltrans

Appendix A
Map 30 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

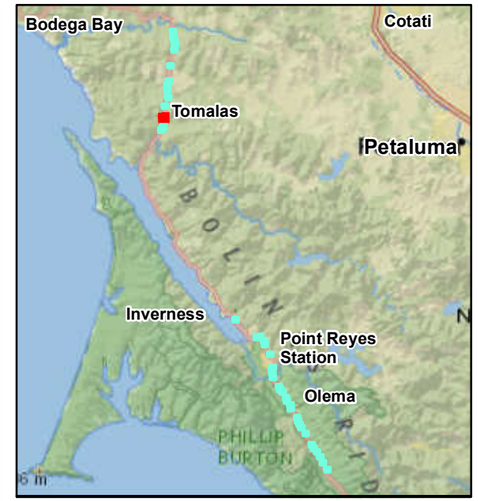
N

0 100 200
Feet

Caltrans

Appendix A
Map 31 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Upgrade Curb Ramps
- Gutter
- Drainage Inlet
- Repair/Modify Sidewalk

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

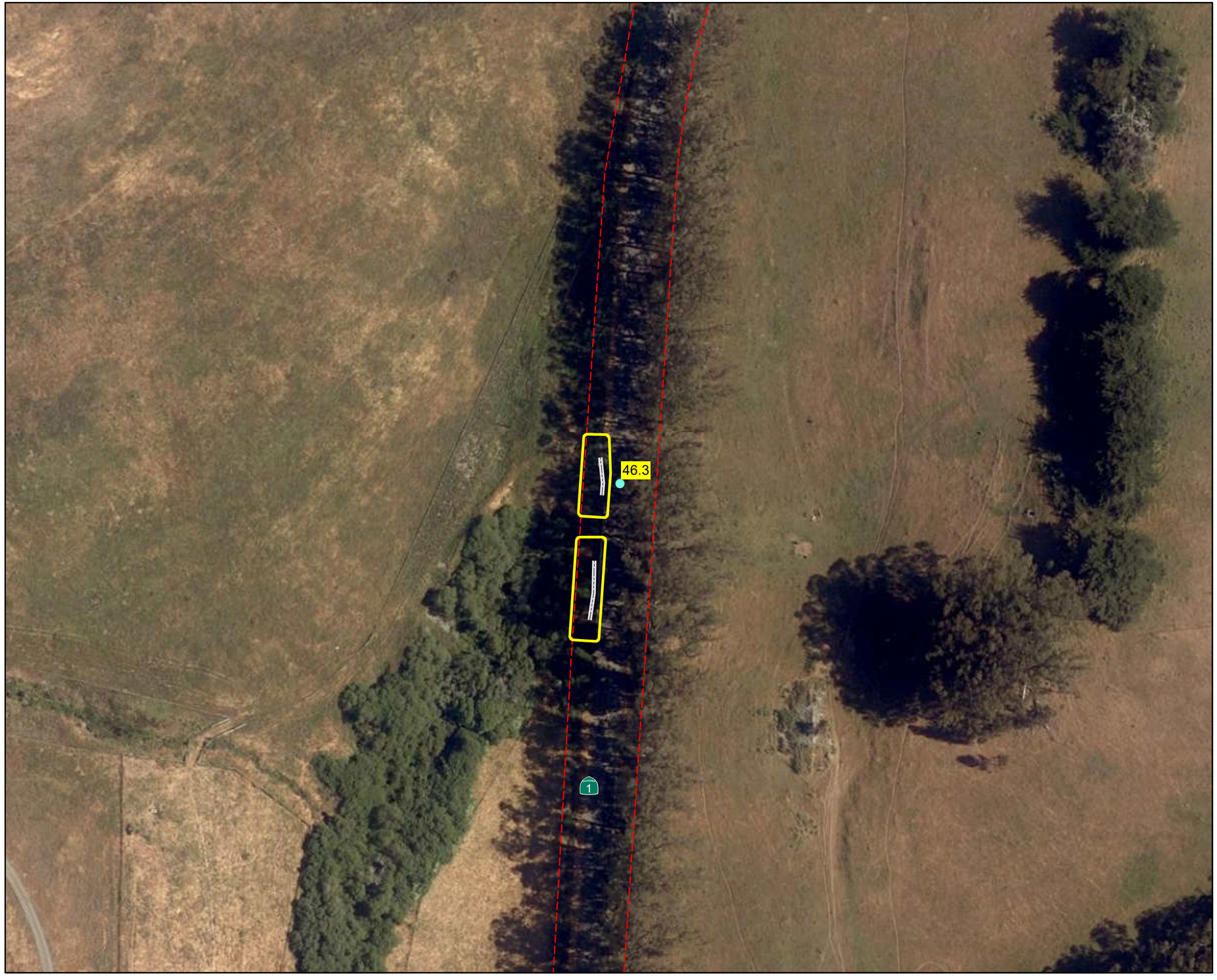
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

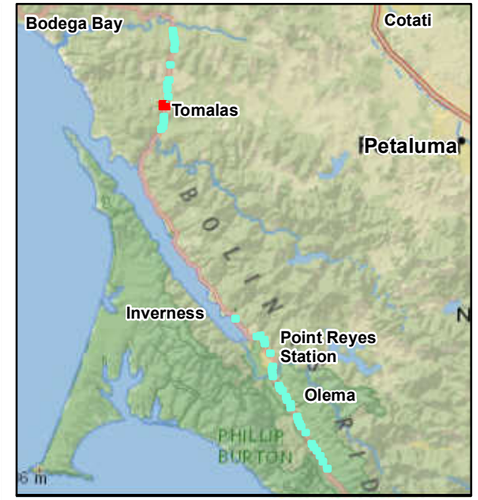
N

0 100 200
Feet

Caltrans

Appendix A
Map 32 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

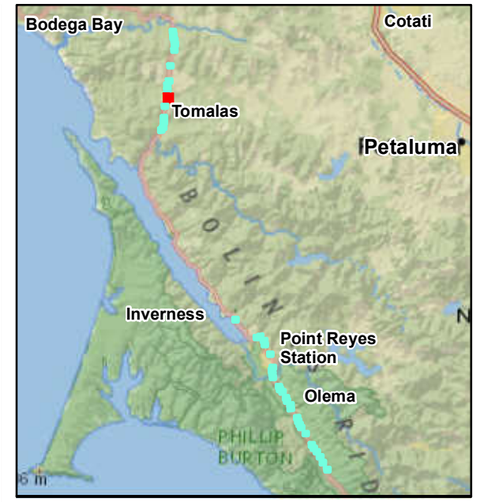
N

0 100 200
Feet

Caltrans

Appendix A
Map 33 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

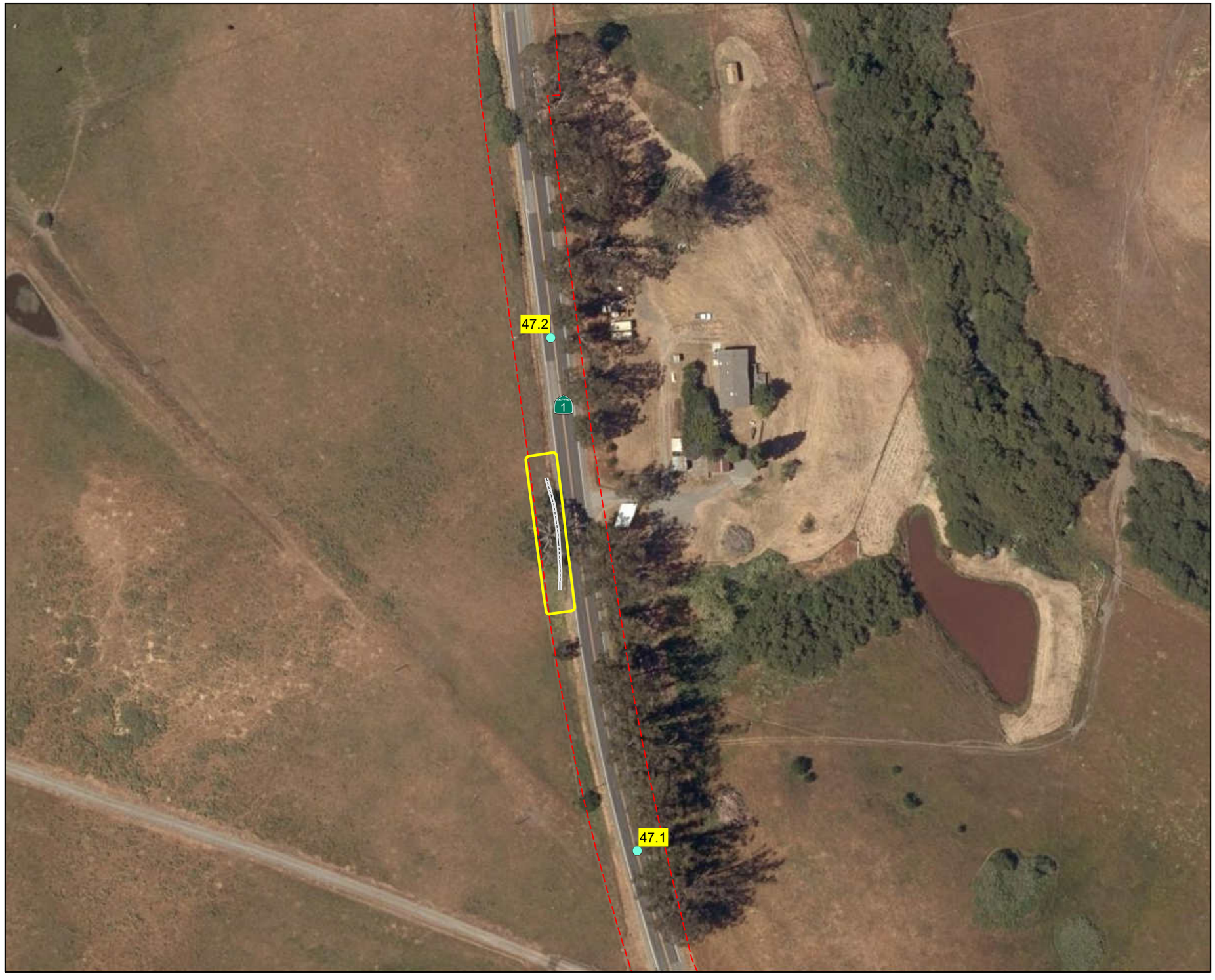
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

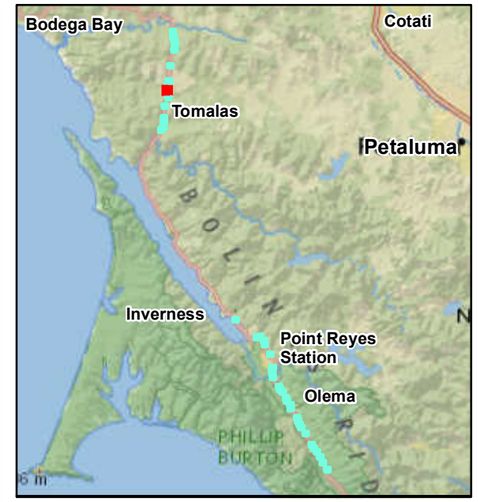
N

0 100 200
Feet

Caltrans

Appendix A
Map 34 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

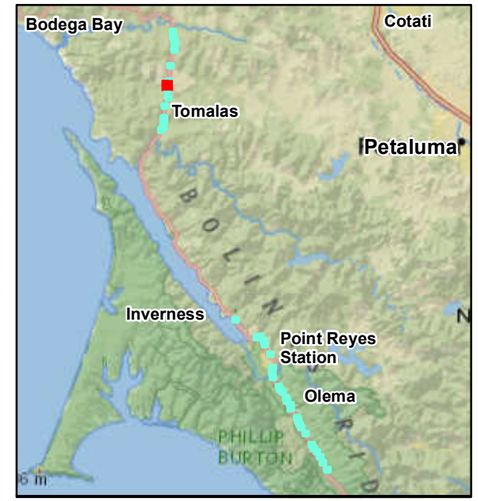
N

0 100 200
Feet

Caltrans

Appendix A
Map 35 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

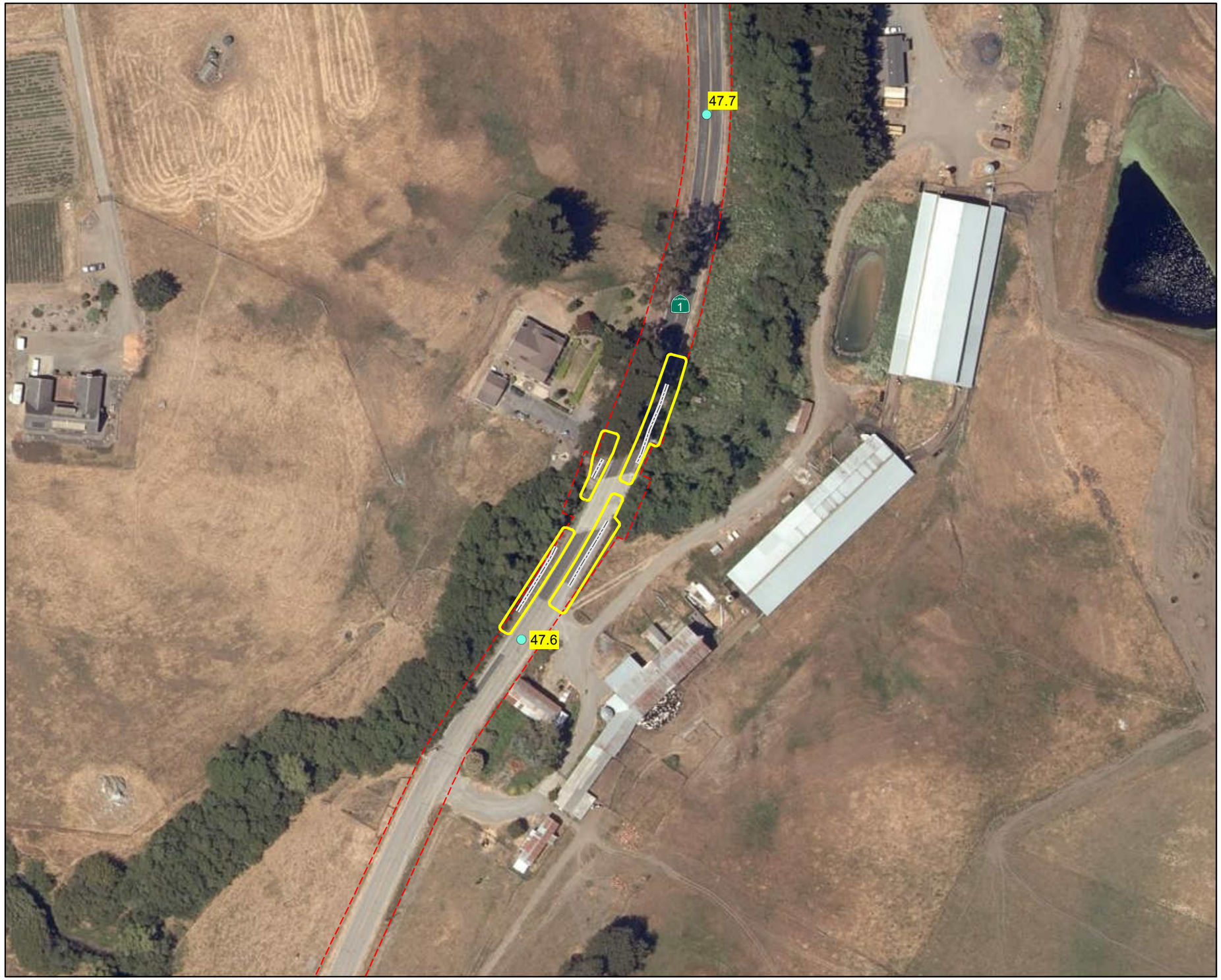
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

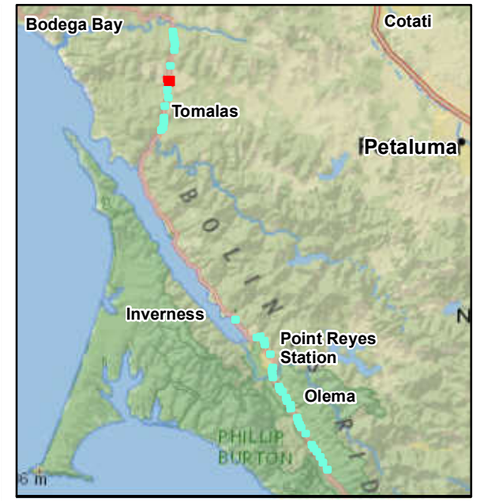
N

0 100 200
Feet

Caltrans

Appendix A
Map 36 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

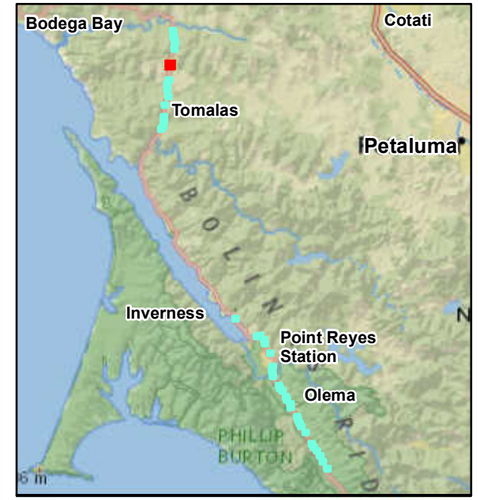
N

0 100 200
Feet

Caltrans

Appendix A
Map 37 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

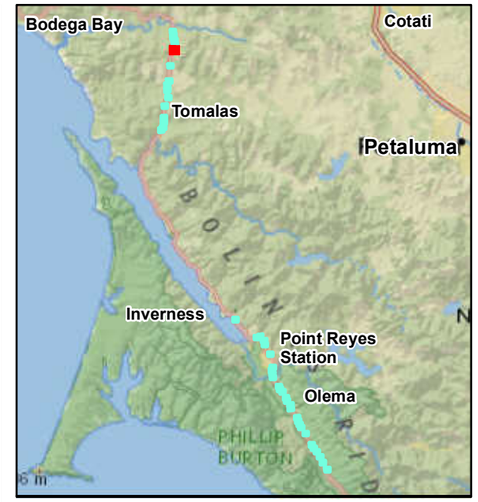
N

0 100 200
Feet

Caltrans

Appendix A
Map 38 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

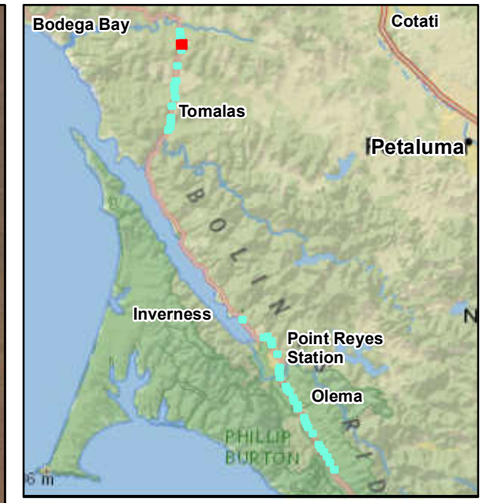
N

0 100 200
Feet

Caltrans

Appendix A
Map 39 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

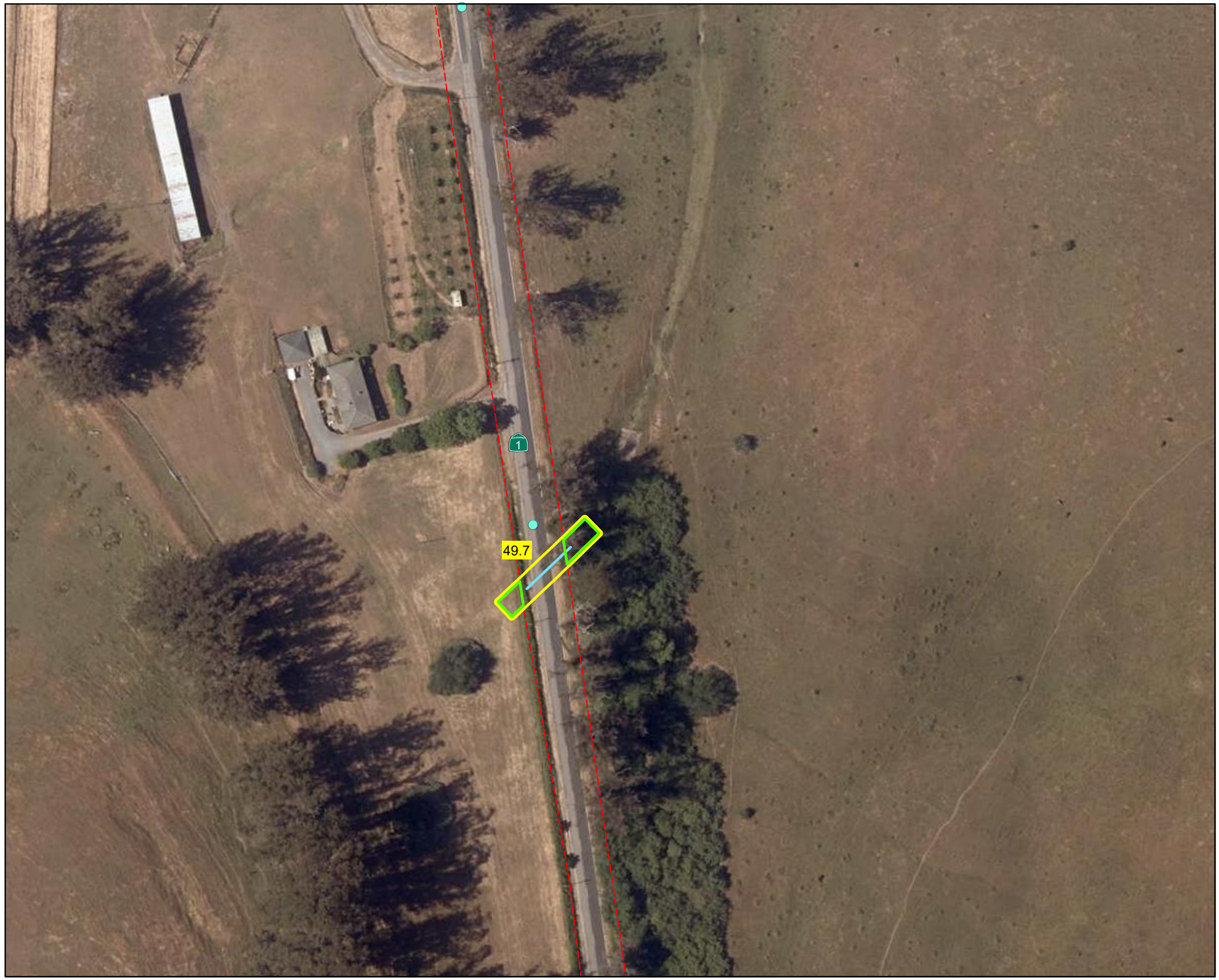
Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

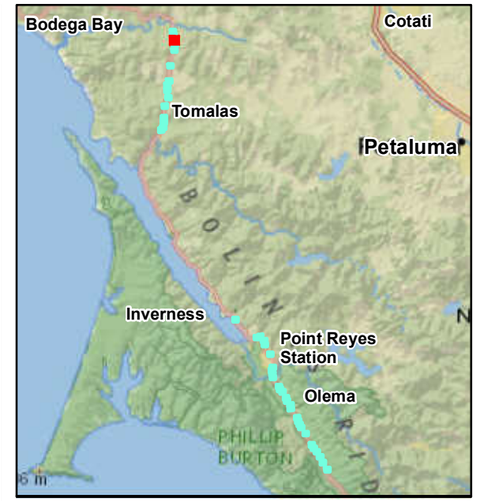
N

0 100 200
Feet

Caltrans

Appendix A
Map 40 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

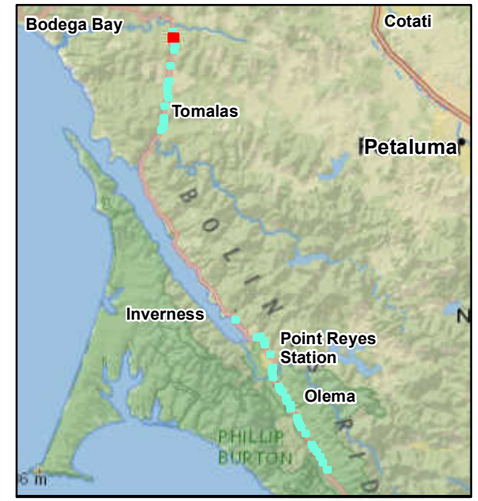
N

0 100 200
Feet

Caltrans

Appendix A
Map 41 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Temporary Construction Easement
- Right of Way
- Post Mile
- Replace Culvert

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

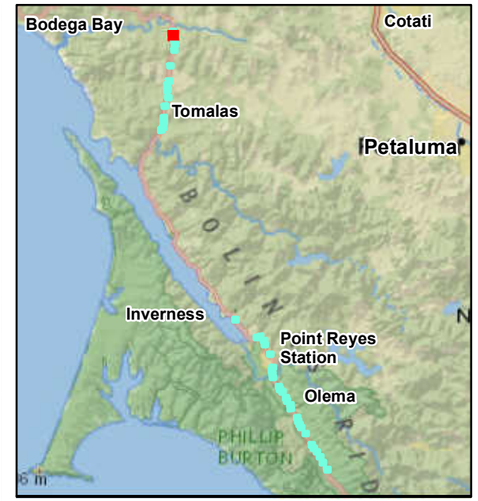
N

0 100 200
Feet

Caltrans

Appendix A
Map 42 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Replace Midwest Guardrail System

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

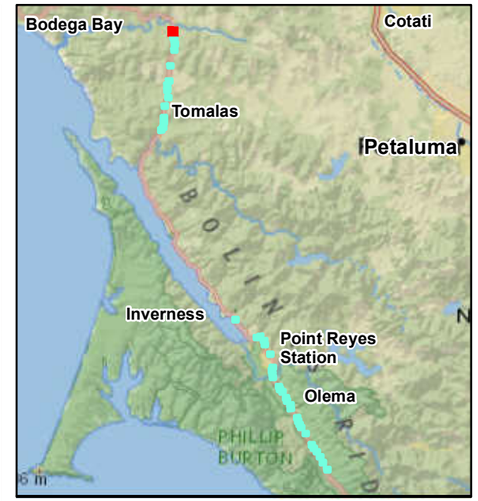
N

0 100 200
Feet

Caltrans

Appendix A
Map 43 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California





LEGEND

- Limit of Work Area
- Right of Way
- Post Mile
- Bicycle Pullout

Note:
Caltrans Design from 08-28-2019
updated culverts, curb and ramp 09-05-2019

Imagery: 6/13/2018 and 6/23/2018 MarinMap, County of Marin, Golden Gate National Parks Conservancy.

N

0 100 200
Feet

Caltrans

Appendix A
Map 44 of 44
Project Components
State Route 1 Capital Preventive Maintenance (CAPM)
EA 1J960, MRN-1-PM 22.8/33.0; 45.0/50.5
Marin County, California

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

April 2018

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."*

Related federal statutes 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, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

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 Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone (916) 324-8379, TTY 711, email Title.VI@dot.ca.gov, or visit the website www.dot.ca.gov.

LAURIE BERMAN
Director

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

Appendix C Summary of Project Features and Avoidance, Minimization, and Mitigation Measures

Project Features

Project Feature AQ-1: Control Measures for Construction Emissions of Fugitive Dust. Dust control measures would be implemented to minimize airborne dust and soil particles generated from construction. For disturbed soil areas, the use of tackifier to control dust emissions would be included in the construction contract. Any material stockpiles would be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion.

Project Feature BIO-1: ESA Fencing. Prior to the start of construction, 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 duration of the Project construction, preventing construction equipment or personnel from entering sensitive habitat areas. The final Project plans will depict all locations where ESA fencing will be installed and how it will be installed. The special provisions in the bid solicitation package will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs.

Project Feature BIO-2: Wildlife Exclusion Fencing. Prior to the start of construction, the Project footprint will be delineated with temporary, high-visibility wildlife exclusion fencing, as needed, to prevent the inadvertent encroachment of wildlife into the Project footprint. The fencing will be removed only when all construction equipment is removed from the job site. The final Project plans will depict the locations where the exclusion fencing will be installed, and the type of materials used.

Project Feature BIO-3: Construction Site Management Practices. The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats:

a. Project-related vehicle traffic will be restricted to established roads and construction areas. Project vehicles will observe a 15-mile-per-hour speed limit while in the Project footprint, except on the current highway.

b. Construction access, staging, storage, and parking areas will be located within the Project's ROW, outside of any designated ESA or the ROW in areas environmentally cleared and permitted by the contractor. The following areas will be limited to the minimum necessary to construct the proposed Project: access routes, staging and storage areas, and contractor parking. Routes and boundaries of roadwork will be clearly marked prior to initiating construction or grading.

c. Any borrow material will be certified, to the maximum extent practicable, as being non-toxic and weed free.

d. All food-related trash items, such as wrappers, cans, bottles, and food scraps, will be disposed of in closed containers and removed at least once daily from the Project footprint.

e. All pets will be prohibited from entering the Project area during construction.

f. Firearms will be prohibited within the Project site, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

g. All equipment will be maintained to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents. A spill response plan would be developed. Hazardous materials, such as fuels, oils, and solvents, will be stored in sealable containers, in a designated location that is at least 50 feet from wetlands and aquatic habitats.

h. Vehicles and construction equipment will be serviced, including fueling, cleaning, and maintenance, at least 50 feet from any aquatic habitat unless the activity is separated by topographic or drainage barrier.

Project Feature BIO-4: Dewatering. Dewatering and discharging activities will be conducted according to standard Caltrans requirements.

Project Feature BIO-5: Seasonal Avoidance. Constrain construction, below top of bank, to occur during the dry season, during creek low flows (starting June 15 and ending October 31). Limit work in the creek to when the creek is dry or mostly dry, as much as practicable, or when the creek diversion has been installed. Caltrans will

complete advanced tree removal activities outside of the California red-legged frog-breeding season and bird nesting season at the bridge locations.

Project Feature BIO-6: Night Work. During the work that needs to occur at nighttime, direct all lighting downward and toward the active construction area.

Project Feature BIO-7: Agency Site Access. If requested, before, during, or upon completion of groundbreaking and any construction activities, Caltrans will allow access by agency personnel into the Project footprint to inspect the Project and its activities. Caltrans requests that all agency representatives contact the resident engineer (RE) prior to accessing the work site and review and sign the Safe Work Code of Practices, prior to accessing the work site for the first time.

Project Feature BIO-8: Migratory Birds and Nest Avoidance. During the nesting season (February 1 through September 30), have a qualified biologist conduct pre-construction surveys for nesting birds 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.

Project Feature BIO-9: Vegetation Removal. Clear any vegetation within the cut-and-fill line or growing in locations where permanent structures will be placed (such as MGS and culvert replacements). Clear vegetation only where necessary and cut above soil level, except in areas that will be excavated for construction. All clearing and grubbing of woody vegetation will occur by hand or using construction equipment, such as mowers, backhoes, and excavators.

Project Feature BIO-10: Erosion Control Matting. To avoid wildlife entrapment, use coconut coir matting or tackified hydroseeding compounds.

Project Feature BIO-11: 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.

Project Feature BIO-12: Reduce Spread of Invasive Species. To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, 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 them in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the Project area will be covered to the extent practicable with heavy black plastic solarization material until the end of the Project.

Project Feature BIO-13: Prevention of Entrapment. At the close of each working day, to prevent the inadvertent entrapment of the California red-legged frog, cover all excavated, steep-walled holes or trenches more than 1 foot deep with plywood or similar materials. If covering an excavation is not feasible, then install one or more escape ramps constructed of earthen fill or wooden planks. Before such holes or trenches are filled, thoroughly inspect them for trapped animals. If at any time a trapped listed animal is discovered, the biologist will immediately place escape ramps or other appropriate structures to allow the animal to escape, or USFWS will be contacted by telephone for guidance. The USFWS will be notified of the incident by telephone and electronic mail within one working day.

Project Feature CULT-1: Discovery of Cultural Materials. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find.

Project Feature CULT-2: Discovery of Human Remains. If remains are discovered during excavation, all work within 60 feet of the discovery will halt and Caltrans Cultural Resource Studies Office will be called. Caltrans Cultural Resources Studies Office Staff would assess the remains and, if they are determined to be human, will contact the County Coroner, per Public Resources Code (PRC) Sections 5097.98, 5097.99, and 7050.5 of the California Health and Safety Code. If the Coroner determines the remains to be Native American, then the Coroner will contact

the Native American Heritage Commission, which would assign a Most Likely Descendant. Caltrans will consult with the Most Likely Descendant on treatment and reburial of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Project Feature GHG-1: Control Measures for Greenhouse Gases. Measures would be determined during the later Project phases and implemented during construction to: (1) ensure regular construction maintenance of construction vehicle and equipment; (2) limit idling of vehicles and equipment onsite; (3) recycle nonhazardous waste and excess material if practicable; and (4) use solar-powered signal boards, if feasible.

Project Feature WQ-1: Stormwater Pollution Prevention Plan. To comply with the CGP, the Project contractor is required to implement a SWPPP containing BMPs for stormwater pollution control. The SWPPP be prepared by the contractor and approved by Caltrans, and detail the implementation of temporary construction site BMPs during all phases of construction to avoid or minimize stormwater and water quality effects to surface water, groundwater, or domestic water supplies. The SWPPP will include erosion control BMPs implemented, to minimize wind- or water-related erosion. These prevention measures will also fulfill the requirements of the San Francisco RWQCB. The Caltrans BMP Guidance Handbook will provide the design staff with guidance for including appropriate provisions in the construction contract that will prevent or minimize stormwater and non-stormwater discharges and protect sensitive areas. At a minimum, protective measures will include the following:

- Any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses will be disallowed.

- Vehicle and equipment fueling and maintenance operations will be kept at least 50 feet away from watercourses, except at established commercial gas stations or an established vehicle maintenance facility.

- All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 50 feet from any downstream riparian habitat, aquatic habitat, culvert, or drainage feature.

- Dedicated fueling and refueling practices will be designated as part of the approved SWPPP. Dedicated fueling areas will be protected from stormwater

runoff and be located at least 50 feet from downslope drainage facilities and water courses.

- Fueling must be performed on level-grade areas. Onsite fueling will only be used when and where sending vehicles and equipment offsite for fueling is impractical. When fueling must occur onsite, the contractor will designate an area to be used subject to the approval of the RE representing Caltrans. Drip pans or absorbent pads will be used during onsite vehicle and equipment fueling.

- Spill containment kits will be maintained onsite at all times during construction operations and/or staging or fueling of equipment.

- Dust control measures will be implemented. These will consist of regular truck watering of construction access areas and disturbed soil areas, including the use of organic soil stabilizers, if required, to minimize airborne dust and soil particles generated from graded areas. For disturbed soil areas, the use of tackifier to control dust emissions blowing off of the ROW or out of the construction area during construction will be included in the construction contract. Watering guidelines will be established to avoid any excessive runoff that may flow into contiguous areas. Any material stockpiles will be watered, sprayed with tackifier, or covered to minimize dust production and wind erosion. All of these efforts will be consistent with the RWQCB or approved SWPPP. Dust control will be addressed during the environmental education session.

- Coir rolls or straw wattles will be installed along or at the base of slopes during construction to capture sediment.

- Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (such as jute or coir) as appropriate on sloped areas.

Project Feature WQ-2: Construction Site BMPs. To prevent or reduce impacts to water quality during construction, construction site BMPs would be deployed for sediment control and material management. These include:

- **Job Site Management:** This non-stormwater discharge and waste management practice includes considerations for operations, illicit discharge detention and reporting, vehicle and equipment cleaning, vehicle and equipment fueling, and material use.

- **Temporary Fiber Rolls:** A fiber roll consists of straw or other similar materials placed on the face of the slopes at regular intervals to intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff.

- **Silt Fence:** A silt fence is a temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff. Silt fences allow sediment to settle from runoff before water leaves the construction site. Silt fences are placed below the toe of exposed and erodible slopes, downslope of exposed soil areas, around temporary stockpiles and along streams and channels. Silt fences should not be used to divert flow or in streams, channels, or anywhere flow is concentrated.

- **Drainage Inlet Protection:** Drainage inlet protection is a practice to reduce sediment from stormwater runoff discharging from the construction site prior to entering the storm drainage system. Effective drainage inlet protection allows sediment to settle out of stormwater or filters sediment from the stormwater before it enters the drain inlet. Drainage inlet protection is the last line of sediment control defense prior to stormwater leaving the construction site.

- **Portable Concrete Washout:** This waste management BMP contains procedures and practices that would minimize or eliminate the discharge of concrete waste materials to the storm drain systems or watercourses.

- **Temporary Cover:** This BMP involves the placement of geosynthetic fabrics (geotextiles), plastic covers, or erosion control blankets/mats to stabilize DSA and protect soil from erosion by wind or water.

- **Stockpile Management:** This BMP consists of procedures and practices to eliminate pollution of stormwater from stockpiles of soil and paving materials (such as concrete rubble, aggregate, and asphalt concrete). These procedures include locating stockpiles away from drainages, and providing perimeter sediment barriers, soil stabilization, and wind erosion control measures.

- **Solid Waste Management:** This BMP consists of procedures and practices to minimize or eliminate the discharge of pollutants to storm drain systems or watercourses as a result of creation, stockpiling, or removal of construction site wastes. Measures include education as well as collection, storage, and disposal practices (such as, plywood and tarp directly on streambed).

- **Stream Diversion System:** The system consists of upstream and downstream berms, with a pipe conveying runoff to create a dry working environment for temporary access. The system would be required at specific culvert locations and used during the summer months for one or both summers of the construction period. Each stream diversion system would be removed immediately after in-stream work is completed at the location, and would not be left in place during the wet season (typically beginning October 15). A risk analysis would be done to determine the design flow for the stream diversion system.

Project Feature WQ-3: Permanent Treatment BMPs. Permanent treatment BMPs are as follows:

- **Design Pollution Prevention BMP Strategy:** The goal of an effective erosion control strategy is to maintain the natural pre-construction conditions. Existing vegetation would be preserved to the maximum extent practicable, and areas disturbed by construction activities would be minimized using construction site BMPs. Preservation involves the identification and protection of desirable vegetation to provide erosion and sediment control benefits.

- **Treatment BMP Strategy:** Treatment BMPs would address the post-construction water quality impacts and remove pollutants from stormwater runoff before discharging to receiving waters. The Project currently proposes the use of biofiltration strips as the stormwater treatment devices to meet Project requirements. The locations for the biofiltration strips would be determined during later Project phases.

- Do not deliver equipment and materials or dispose of spoils/construction waste between 9:00 p.m. and 6:00 a.m.

- Use quieter alternative methods or equipment (like electricity instead of generator), if feasible.

- Avoid idling of equipment near sensitive receptors.

- Confirm that all equipment used on the construction site, including jackhammers, has exhaust systems and mufflers recommended by the manufacturer as having the lowest noise.

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

Project Feature UTI-2: Treated Wood Waste. Wood removed from metal beam guardrails will be considered treated wood waste, and must be disposed of by the contractor pursuant to Caltrans standard specifications.

Avoidance and Minimization Measures

AMM AES-1: Design Information Bulletin (DIB) 82-06. DIB 82-06 allows for alternative color selection of suitable contrast with adjacent paving. Select a muted color (such as brick red or brown) with an adequate level of adjacent surface contrast to ADA-compliant upgrades, while minimizing visual change. Tint concrete paving used for pedestrian facilities (sidewalks and curb ramps) to minimize visual change relative to adjacent existing pavement within the rural villages of Point Reyes Station and Tomales.

AMM AES-2: Conceal drainage features. Color drainage features (including associated concrete) to match adjacent earth tones where they are not permanently hidden from view.

AMM AES-3: Selection of Attenuators and Crash Cushions. Select attenuators and crash cushions that are visually consistent with MGS metal railings, to the maximum extent feasible.

AMM AES-4: Aesthetically Treat Concrete Blocks. Aesthetically treat MGS terminal blocks adjacent to existing see-through concrete railings to minimize character change. Locations are: PM 22.8/22.91, PM 23.21/23.34, and PM 28.55.

AMM AES-5: Color Concrete Structures. Color concrete structures to minimize visual dissimilarity when compared to existing concrete barriers and other structures.

AMM AES-6: Minimize Construction Appearance. Minimize appearance of construction equipment and staging areas locations to the extent feasible.

AMM AES-7: Culvert Footprints. Minimize culvert footprints.

AMM AES-8: Treatments at MVPs and Turnouts. Use non-pavement treatments at MVPs and turnouts. Per Marin SR 1 Repair Guidelines, paving beyond a 4-foot-wide shoulder should be limited.

AMM AES-9: Revegetation of Disturbed Areas. Revegetate disturbed soils using native plants and plant seeds as appropriate. In Project locations in or adjacent to park lands including, Point Reyes National Seashore, or state parks lands, propagate plants from local plant material and locally collect seeds.

AMM AES-10: Protect Existing Trees. Avoid impacts to existing trees and shrubs, including associated tree roots, where feasible. Caltrans Landscape Architecture and Biological Resources offices will identify specific locations and BMPs during later Project phases and include appropriate information in the plans and specifications.

AMM AES-11: Limit Construction Lighting. Limit construction lighting to the specific areas under construction along the Project corridor and avoid light trespass with the use of directional lighting, shielding, and other measures as needed.

AMM BIO-1: Approved Biologist. Submit the names and qualifications of the proposed biomonitor(s) to the USFWS and CDFW for approval at least 30 calendar days prior to the start of construction.

a. Prior to working on the site, the approved biomonitor(s) will submit a letter to the USFWS and CDFW verifying that they possess a copy of the BO, Streambed Alteration Agreement, and other relevant permits for the Project, and understand the *Terms and Conditions*.

b. The biomonitor(s) will keep a copy of the BO, Streambed Alteration Agreement, and other relevant permit materials in their possession when onsite.

c. The biomonitor(s) will be onsite during all work that could reasonably result in take of special-status wildlife.

d. In coordination with the Caltrans RE, the biomonitor(s) will have the authority to stop work that may result in the unauthorized take of special-status species. If the biomonitor(s) exercises this authority, the USFWS or CDFW will be notified by telephone and email within one working day.

e. At least 30 days prior to the onset of activities, submit to the USFWS and CDFW the name(s) and credentials of biologists who will conduct preconstruction

surveys and relocation activities for the listed species. No Project activities will begin until the proponent has received written approval from the agencies that he/she is approved to conduct the work. An agency-approved biologist will be present onsite during the construction of any erosion control fencing or cofferdams, and prior to and during the dewatering activities to monitor for the California red-legged frog. Through communication with the RE or his/her designee, the agency-approved biologist may stop work, if deemed necessary, for any reason to protect listed species; the biologist will advise the RE or designee on how to proceed accordingly.

f. The RE (or designee) will do the following tasks: 1) Send a letter to the USFWS and CDFW verifying that they possess a copy of the BO and Lake and Streambed Alteration Agreement and understands the *Terms and Conditions*. 2) Maintain a copy of the BO, Lake and Streambed Alteration Agreement, and other relevant permits onsite whenever construction is taking place. 3) Immediately contact the agency-approved biological monitor when a California red-legged frog is observed within the construction zone. Construction activities will be suspended within a 50-foot radius of the California red-legged frog until the animal leaves the site voluntarily or is relocated by the agency-approved biological monitor. The agency-approved biological monitor will follow established California red-legged frog protocols for relocation of the California red-legged frog.

AMM BIO-2: Worker Environmental Awareness Training. Prior to ground-disturbing activities, have an agency-approved biologist 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 endangered species, as well as the importance of compliance with Caltrans and various resource agency conditions.

AMM BIO-3: Pre-Construction California Red-Legged Frog Surveys. An agency-approved biologist will conduct pre-construction surveys for the California red-legged frog no more than 20 calendar days prior to any initial ground disturbance and immediately prior to ground-disturbing activities (including vegetation removal) beyond the existing pavement. These efforts will consist of walking surveys within the area of ground disturbance and, if possible, accessible adjacent areas within at least 50 feet of the Project limits. The agency-approved biologist will investigate potential cover sites when such investigation is feasible and safe. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the Project limits will be documented and relocated to an adequate cover site in the vicinity. Safety permitting, the agency-approved biologist(s) will investigate areas of disturbed soil for signs of California red-legged frogs within 30 minutes following initial disturbance of the given area.

AMM BIO-4 Protocol for Species Relocation and Reporting. Follow these procedures if California red-legged frogs are encountered in the immediate work area:

a. If a frog is discovered during surveys or Project activities, the RE and agency-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 or is removed by the agency-approved biologist. The captured frog will be released within appropriate habitat outside of the construction zone within the creek riparian corridor. The release habitat will be determined by the agency-approved biologist.

b. The agency-approved biologist will have the authority to halt work through coordination with the RE if a frog is discovered within the Project footprint. The RE will ensure construction activities remain suspended in any construction area where the qualified biologist has determined that a potential take of the frog could occur. Work will resume once the animal leaves the site voluntarily, or is removed by the biologist(s) to a release site using USFWS-approved handling techniques, or if it is determined that the frog 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.

c. 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).

d. An agency-approved biologist or a licensed veterinarian will care for injured frogs, if necessary. Dead frogs will be preserved according to standard museum techniques and held in a secure location. The USFWS will be notified within one working day of the discovery of a death or injury of frog(s) resulting from Project-related activities or if a frog is observed at the Project site. Notification will include the date, time, location, and any other pertinent information related to the incident or the finding of a dead or injured animal, clearly indicated on a USGS 7.5-minute quadrangle and other maps at a finer scale, as requested by the USFWS.

e. Caltrans will submit post-construction compliance reports prepared by the biologist to the USFWS within 60 calendar days following completion of Project activities, or within 60 calendar days of any break in construction activity lasting more than 60 calendar days. This report will detail: (1) dates that relevant Project activities occurred; (2) pertinent information concerning the success of the Project in implementing AMMs for listed species; (3) an explanation of failure to meet such measures, if any; (4) known Project effects on the frog, if any; (5) occurrences of incidental take of listed species; (6) documentation of employee environmental education; and (7) other pertinent information.

AMM BIO-5: Vegetation Removal Avoidance for Northern Spotted Owl. To the extent feasible, conduct all major tree removal between October 1 and January 31, prior to the onset of winter rains, outside the northern spotted owl nesting season and during the later portion of the northern spotted owl's breeding season (February 1 to September 30) and one year prior to the start of construction activities. Trees will be stumped and roots left in place until construction commences the following year. Should vegetation removal occur during the northern spotted owl's breeding season, an agency-approved biologist will conduct protocol surveys following the USFWS northern spotted owl survey protocols (USFWS 2012) or most current protocol.

AMM BIO-6: Vegetation Removal Avoidance for Bats. Remove any trees that may provide roosting habitat (such as large snags or trees with cavities) using the two-phase method of removing limbs from the tree on the afternoon of the first day and stumping the tree on the following day.

AMM BIO-7: Fish Passage Assessment. During later phases of the Project, a fish passage assessment will be conducted to determine if any of the eight culverts proposed for replacement are currently a barrier to fish passage. If any of the culverts proposed for replacement are determined to be a barrier to fish passage, then the Project will be designed to eliminate the fish passage barrier in accordance with Senate Bill 857.

AMM Noise-1: Noise Levels During Construction. Noise from construction activities is not to exceed 86 dBA Lmax[3] 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: Noise Best Management Practices. The following BMPs would be implemented during all phases of construction activities to reduce noise:

- Provide public outreach/communication plan throughout the Project for residents to have a source of accurate information, including social media, on Project information and schedules.
- Inform West Marin Elementary School of the construction schedule at their location and to use classrooms at least 100 feet away from SR 1 during construction located adjacent to the school.
- Locate staging and storage areas away from sensitive receptors (especially residences).
- Enclose staging and storage areas, if feasible. Use natural barriers (like situating idling equipment behind hills at Valley Ford), when available.
- Consider reducing impact of detours through public information and choosing detours away from residences.
- Do not deliver equipment and materials or dispose of spoils/construction waste between 9:00 p.m. and 6:00 a.m.
- Use quieter alternative methods or equipment (like electricity instead of generator), if feasible.

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

- Avoid idling of equipment near sensitive receptors.
- Confirm that all equipment used on the construction site, including jackhammers, has exhaust systems and mufflers recommended by the manufacturer as having the lowest noise.

AMM Noise-3: Vibration Control Measures: (1) At locations where structures are 30 feet or less from SR 1, schedule activities (such as, paving, curb/sidewalk replacement and sign replacement/installation) separately. (2) Prevent idling of other equipment within 100 feet of structures.

AMM TRANS-1: Traffic Management Plan: To minimize potential effects from construction activities to motorists, bicyclists, or pedestrians using local streets, a TMP would be developed by Caltrans and implemented throughout construction. The TMP would include public information, motorist information, incident management, construction, and alternate routes or detours. The TMP would also include elements, such as detour and haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing, to reduce impacts to local residents as much as feasible and maintain access to businesses in the local area. The TMP would also provide access for police, fire, and medical services in the local area. Detour routes would be planned in coordination with Caltrans and Marin County, and would include notices to emergency service providers, transit operators, and the public in advance.

Mitigation Measures

Mitigation Measure BIO-1: Riparian Tree Replacement. Riparian trees that are removed as a result of this Project will be replanted onsite, at a ratio of 3:1, upon Project construction completion.

Mitigation Measure BIO-2: Wetlands and Waters Restoration. Mitigation for temporary impacts to wetlands and waters within the California Coastal Zone will be accomplished through onsite restoration, upon Project construction completion.

Appendix D List of Acronyms

AC	asphalt concrete
ADA	Americans with Disabilities Act
AES	aesthetics
AMM	avoidance and minimization measure
APE	area of potential effects
AQ	air quality
BIO	biology
BMP	best management practice
BO	Biological Opinion
BSA	biological study area
Caltrans	California Department of Transportation
CAPM	Capital Preventative Maintenance
CCA	California Coastal Act of 1976
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGP	Construction General Permit for construction activities (2009-0009-DWQ, CAS000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ)
CH_4	methane
CNDDB	California Natural Diversity Database

CNPS	California Native Plant Society
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CSP	corrugated steel pipe
CSPA	corrugated steel pipe arc
CULT	cultural
dBA	A-weighted decibel
DSA	disturbed soil area
ESHA	environmentally sensitive habitat area
EIR	environmental impact report
FESA	federal Endangered Species Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
HPSR	Historic Property Survey Report
HSA	Hydrologic Sub-Area
LCP	Local Coastal Program
MGS	Midwest Guardrail System
MTC	Metropolitan Transportation Commission
MVP	maintenance vehicle pullout
N_2O	nitrous oxide
National Register	National Register of Historic Places

NES	Natural Environment Study
PCS	pavement condition survey
PM	post mile
PPV	peak particle velocity
PRC	Public Resources Code
RE	resident engineer
ROW	right of way
RWQCB	Regional Water Quality Control Board
SHOPP	State Route Operation and Protection Program
SR	State Route
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAM	Transportation Authority of Marin
TCE	temporary construction easement
TMP	Traffic Management Plan
TRANS	transportation and traffic
TTY	text telephone
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
VIA	visual impact assessment
WQ	water quality

Appendix E List of Technical Studies and References

Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC). 2017. Plan Bay Area 2040: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017 to 2040. Available at http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf. Adopted July 25, 2017.

CAL FIRE. 2007. Marin County Fire Hazard Severity Zones in SRA. Available at https://osfm.fire.ca.gov/media/6707/fhszs_map21.pdf. November 7.

California Department of Conservation. 2019. Farmland Mapping and Monitoring Program imagery. Accessed October 2019.

California Department of Transportation (Caltrans). 2019a. Visual Impact Assessment State Route 1 Capital Preventive Maintenance Project. District 4, Office of Landscape Architecture. Oakland, CA. October 15.

California Department of Transportation (Caltrans). 2019b. Supplemental Visual Impact Assessment State Route 1 Capital Preventive Maintenance Project. District 4, Office of Landscape Architecture. Oakland, CA. November 22.

California Department of Transportation (Caltrans). 2019c. *Marin 1 CAPM Project Draft Natural Environment Study*. December.

California Department of Transportation (Caltrans). 2019d. California Coastal Commission Aquatic Resources Report for State Route 1 Capital Preventive Maintenance (CAPM) Project from Post Mile 22.8 to 31.2 and 45.0 to 50.5. November.

California Department of Transportation (Caltrans). 2019e. Aquatic Resources Delineation Report for Marin State Route 1 Capital Preventative Maintenance Project. January.

California Department of Transportation (Caltrans). 2019f. *Office of Cultural Resource Studies (OCRS) Summary Memo for the State Route 1 Capital*

Maintenance Project in Marin County. District 4 Office of Cultural Resources Studies. Oakland, CA. June 20.

California Department of Transportation (Caltrans). 2019g. *Historic Property Survey Report (HPSR)*. District 4 Office of Cultural Resources Studies. Oakland, CA. May 14.

California Department of Transportation (Caltrans). 2019h. *Historic Resources Evaluation Report (HRER)*. District 4 Office of Cultural Resources Studies. Oakland, CA. March.

California Department of Transportation (Caltrans). 2019i. Archaeological Survey Report for the State Route 1 CAPM Project. District 4 Office of Cultural Resources Studies. Oakland, CA. April.

California Department of Transportation (Caltrans). 2019j. *Water Quality Study*. District 4 Office of Water Quality. October.

California Department of Transportation (Caltrans). 2019k. *Stormwater Data Report*. District 4 Office of Water Quality. September.

California Department of Transportation (Caltrans). 2019l. Construction Noise Analysis Report. District 4, Office of Environmental Engineering. Oakland, CA. March 13, 2019.

California Department of Transportation (Caltrans). 2019m. *Construction-Related Vibration Assessment Report*. District 4, Office of Environmental Engineering. Oakland, CA. March 12, 2019.

California Department of Transportation (Caltrans). 2018a. *Standard Plans U.S. Customary Units 2018 Edition*. Available at http://ppmoe.dot.ca.gov/hq/esc/oe/project_plans/HTM/stdplns-US-customary-units-new18.htm. Accessed February 2019.

California Department of Transportation (Caltrans). 2018b. *Highway Design Manual Sixth Edition*. Available at https://dot.ca.gov/-/media/dot-media/programs/design/documents/hdm-complete-14dec2018.pdf.

California Department of Transportation (Caltrans). 2018c. Comments from the Air/Noise/Energy Branch Memorandum – 1J960 Capital Preventive

Maintenance Improvement Project. District 4, Office of Environmental Engineering. Oakland, CA. September 27, 2018.

California Department of Transportation (Caltrans). 2018d. State Route 1 Capital Preventive Maintenance Project Technical Memorandum. District 4 Office of Geotechnical Design – West. Oakland, CA. October 4, 2018.

California Department of Transportation (Caltrans). 2018e. Construction Greenhouse Gas Emissions Analysis Memorandum. Capital Preventive Maintenance Project on State Route 1. District 4 Office of Environmental Engineering. Oakland, CA. August 28, 2018.

California Department of Transportation (Caltrans). 2018f. 2018 Standard Plans and Standard Specifications. Available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications.

California Department of Transportation (Caltrans). 2017. *Preliminary Drainage Assessment and Location Hydraulic Study*. Office of Hydraulics. Oakland, CA. November 30, 2017.

California Department of Transportation (Caltrans). 2015. *Marin State Route 1 Repair Guidelines*. Caltrans District 4. Oakland, CA. July 2015.

California Department of Transportation (Caltrans). 2007. *Design Information Bulletin 81: Capital Preventative Maintenance (CAPM) Guidelines.* Available at http://www.dot.ca.gov/hq/maint/Pavement/Offices/Pavement_Engineering/PDF/dib81-6-29-07.pdf. June 22, 2007. Accessed February 2019.

California Department of Fish and Wildlife (CDFW). 2016. "Tomales Bay Ecological Reserve" Web page. Available at https://www.wildlife.ca.gov/Lands/Places-to-Visit/Tomales-Bay-ER.

California Department of Fish and Wildlife (CDFW). 2019a. California Natural Diversity Database. RareFind Version 5.0 and monthly GIS layer Download. Desktop Commercial Subscription. Biogeographic Data Branch. Sacramento, California.

California Department of Fish and Wildlife (CDFW). 2019b. Biogeographic Information and Observation System. *California Natural Diversity*

Database/Spotted Owl Viewer Database. Biogeographic Data Branch, Sacramento, CA.

California Native Plant Society (CNPS). 2019. Inventory of Rare and Endangered Plants of California (online edition). Available at: http://www.rareplants.cnps.org.

Federal Highway Administration (FHWA). 1981. Visual Impact Assessments for Highway Projects. Publication No. FHWA-HI-88-054. Available at http://www.dot.ca.gov/ser/downloads/visual/FHWAVisualImpactAssmt.pdf.

Marin County. 2019. Marin GeoHub Fire Hazard Severity Zones. https://gisopendata.marincounty.org/datasets/0683285b35354c18a93de194a8e3b70d_70/data?geometry=-122.830%2C38.027%2C-122.720%2C38.051. Updated August 7, 2019. Accessed November 1, 2019.

Marin County. 2012. Marin County Coastal Zone Map. Available at https://www.marincounty.org/~/media/files/departments/cd/planning/local-coastal/marin_county_coastal_zone_map.pdf. Accessed: February 20, 2018.

Marin County. 2007. Marin Countywide Plan. Available at http://www.marincounty.org/depts/cd/divisions/planning/2007-marin-countywide-plan/countywide-plan.

Marin County. 2001. Point Reyes Station Community Plan. Available at http://www.marincounty.org/~/media/files/departments/cd/planning/currentplanning/publications/communityandareaplans/pt_reyes_commnity_plan_2001.pdf.

Marin County. 1981. Marin County Local Coastal Program, Unit 2. Available at http://www.marincounty.org/depts/cd/divisions/planning/plans-policies-and-regulations/local-coastal-program.

Marin County. 2007. *Marin Countywide Plan*. Available at: https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update.pdf. Assessed December 13, 2019.

Marin County. 2012a. Marin County Municipal Code Chapter 22.27 – Native Tree Protection and Preservation. Available at:

https://library.municode.com/ca/marin_county/codes/code_of_ordinances?nodeId=TIT22DECO_ARTIIISIPLGEDERE_CH22.27NATRPRPR. Assessed December 13, 2019.

Marin County. 2012b. Marin County Municipal Code Chapter 22.130 – Definitions. Available at: https://library.municode.com/ca/marin_county/codes/code_of_ordinances?nodeId=TIT22DECO_ARTVIIIDECODE_CH22.130DE. Assessed December 13, 2019.

Marin Transit. 2019. Service Map. Available at https://marintransit.org/map. Accessed November 2019.

National Park Service (NPS). 2016. Point Reyes National Seashore. Available at https://www.nps.gov/pore/index.htm.

Natural Resources Conservation Service (NRCS). 2019. "Web Soil Survey". United States Department of Agriculture. Available at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed November 2019.

State Water Resources Control Board (SWRCB). 2019. Geotracker Database Search – Marin County. Available at https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Sacramento. Accessed October 18, 2019.

Transportation Authority of Marin (TAM). 2019. Draft 2019 CMP Update. Available at https://2b0kd44aw6tb3js4ja3jprp6-wpengine.netdna-ssl.com/wp-content/uploads/2019/10/10c-2019-DRAFT-CMP-9-20-19-Copy.pdf. October.

United States Department of Agriculture (USDA) Soil Conservation Service. n.d. Soil Survey of Marin County. Available at https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/marinCA1985/marinCA1985.pdf. Accessed November 2019.

United States Geological Survey (USGS). 2018. National Hydrography Dataset. United States Department of the Interior. Available at https://www.usgs.gov/core-science-systems/ngp/national-hydrography. Accessed August 22, 2018.

United States Geological Survey (USGS). 2019. U.S. Quaternary Faults. Available at https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf. Accessed November 2019.

United States Fish and Wildlife Service (USFWS). 2019. The Information, Planning, and Consultation System. Available at https://ecos.fws.gov/ipac/.

United States Fish and Wildlife Service (USFWS). 2018b. National Wetlands Inventory Map. Available at http://www.fws.gov/wetlands/Data/Mapper.html. Accessed August 22, 2018.