

State Route 12 Capital Preventive Maintenance Project

SONOMA COUNTY, CALIFORNIA
CALTRANS DISTRICT 4
State Route 12, POST MILE 11.0-17.4
EA# 04-0K520
EFIS#: 0416000098

Initial Study with Mitigated Negative Declaration



Prepared by Caltrans



June 2020

General Information about this Document

What is in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS) with Mitigated Negative Declaration (MND) for the State Route (SR) 12 Capital Preventive Maintenance (CAPM) Project in Sonoma County, California (Project). The Project proposes to resurface the existing pavement on SR 12, including the shoulders, between Llano Road (Post Mile [PM] 11.0) and Farmers Lane (PM 17.4) from the outskirts of the City of Sebastopol to the City of Santa Rosa in Sonoma County. Additional work includes upgrading 4 curb ramps to meet American with Disabilities Act (ADA) standards, replacing up to 38 existing concrete approach slabs with 1.25-foot-thick new slabs, reconstructing drainage infrastructure, and upgrading up to 10,000 linear feet of the existing metal beam guardrail (MBGR) to Midwest Guardrail System (MGS). Along the eastbound SR 12 to southbound U.S. Highway 101 (U.S. 101) connector, a 300-linear-foot drainage system would be reconstructed on the outside shoulder from the end of the existing retaining wall to the existing sound wall. All work proposed would be within the Caltrans right of way (ROW). As the lead agency under the California Environmental Quality Act (CEQA), Caltrans has prepared this document describing why the Project is being proposed, how the existing environment could be affected by the Project, potential environmental impacts resulting from the Project, and the proposed Project Features, Avoidance and Minimization Measures, and Mitigation Measures.

The IS with MND was circulated to the public for 30 days beginning on January 3, 2020 and ending on February 3, 2020. One individual comment was received during the public comment period and responses to this comment are included in Appendix F. Throughout this document, a vertical line in the margin indicates changes made since the IS with MND was circulated for public review. Minor editorial changes and clarifications have not been so indicated.

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: [the Caltrans environmental document website](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs) (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>).

Initial Study with Mitigated Negative Declaration

04-SON-12

Dist. – Co. – Rte.

11.0-17.4

PM

04-0K520

E.A.

Project title:	State Route 12 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:	Sonoma County, California
General plan description:	Highway
Zoning:	Transportation Corridor
State Clearinghouse (SCH) No.	2020019007
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements)	<ul style="list-style-type: none">• California Transportation Commission• United States Fish and Wildlife Service Biological Opinion• Consistency Determination from California Department of Fish and Wildlife



Christopher Caputo
Chief (Acting), Office of Environmental Analysis
Caltrans, District 4

June 8, 2020

Date

Mitigated Negative Declaration

Pursuant to Division 13, Public Resources Code

Project Description


The California Department of Transportation (Caltrans) has prepared this Initial Study (IS) with Mitigated Negative Declaration (MND) for the State Route (SR) 12 Capital Preventive Maintenance (CAPM) Project in Sonoma County, California (Project). The Project would resurface the existing pavement on SR 12, including the shoulders, between Llano Road (Post Mile [PM] 11.0) and Farmers Lane (PM 17.4) from the outskirts of the City of Sebastopol to the City of Santa Rosa in Sonoma County. Improvements on SR 12 would include installing rumble strips at the centerline and shoulder, as well as reconstructing loop detectors, upgrading existing electrical signals at intersections, and rebuilding 5 feet of shoulder backing. Additional work includes upgrading 4 curb ramps to meet Americans with Disabilities Act (ADA) standards, replacing up to 38 existing concrete approach slabs with 1.25-foot-thick new slabs, reconstructing drainage infrastructure, and upgrading up to 10,000 linear feet of the existing metal beam guardrail (MBGR) to Midwest Guardrail System (MGS). Along the eastbound SR 12 to southbound U.S. Highway 101 (U.S. 101) connector, a 300-linear-foot drainage system would be reconstructed on the outside shoulder from the end of the existing retaining wall to the existing sound wall. The area between the sound wall and the travel lane would be re-graded so that the area drains to the edge of the pavement towards the new drainage system on the outside shoulder. The Project is needed to extend the life of the existing pavement, improve the ride quality, and bring curb ramps up to ADA standards.

Determination

Caltrans has prepared an IS for the proposed Project. Following public review, Caltrans has determined that the proposed Project would not have a significant effect on the environment for the reasons described below.

The proposed Project would have no impact on agriculture and forest resources, land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources. In addition, the proposed Project would have less than significant impacts to aesthetics, air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, transportation and traffic, utilities and service systems, wildfire. As discussed in Chapter 3 Biological Resources, there is a potential for suitable refugial or dispersal habitat for the California Tiger Salamander (CTS; *Ambystoma californiense*), a federally endangered and state threatened species, to occur within the Biological Study Area (BSA). The potential to adversely affect this species would be reduced with the implementation of Mitigation Measure BIO-1, California Tiger Salamander, which states that if CTS habitat is disturbed during construction, then impacts to CTS upland habitat with small mammal burrows will be mitigated at a ratio of 2:1, in accordance with the Santa Rosa Conservation Strategy Plan (SRPCS). Mitigation will be provided by purchase of conservation credits from a United States Fish and Wildlife (USFWS) and California Department of Fish and Wildlife (CDFW) approved conservation bank. Therefore, as described in Chapter 3 Biological Resources, the Project would have a less than significant impact with mitigation.

As discussed in Chapter 3, Noise, there is one sensitive receptor 50 feet from the Project limits. As such, temporary construction activities such as installing MGS and grinding Portland cement concrete (PCC) pavement would generate noise levels above 86 dBA at 50 feet from the Project limits from 9:00 p.m. to 6:00 a.m. Implementation of Mitigation Measure NOI-1, Temporary Noise Barriers, will reduce noise levels to less than 86 dBA with the use of plywood panels between the sensitive receptor and construction noise. Therefore, as described in Chapter 3, Noise, the Project would have a less than significant impact with mitigation.



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

June 9, 2020

Date

Table of Contents

Initial Study with Mitigated Negative Declaration	iii
Mitigated Negative Declaration	v
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 Build Alternative.....	2-1
2.1.1 Project Components	2-1
2.1.2 Complete Streets	2-1
2.1.3 Right of Way.....	2-11
2.1.4 Utilities.....	2-11
2.1.5 Staged Construction	2-11
2.1.6 Construction Activities	2-12
2.1.7 Construction Schedule and Equipment Staging.....	2-13
2.1.8 Vegetation Trimming and Removal.....	2-13
2.1.9 Project Features.....	2-13
2.2 No-Build Alternative	2-21
2.3 Permits and Approvals Needed.....	2-21
Chapter 3 California Environmental Quality Act Evaluation.....	3-1
Environmental Factors Potentially Affected.....	3-1
Determination	3-2
Aesthetics	3-4
Agriculture and Forestry.....	3-7
Air Quality	3-9
Biological Resources	3-11
Cultural Resources.....	3-27
Energy	3-29
Geology/Soils	3-30
Greenhouse Gas Emissions	3-32
Hazards and Hazardous Materials	3-34
Hydrology/Water Quality	3-37
Land Use/Planning	3-49
Mineral Resources	3-50
Noise	3-51
Population/Housing	3-56
Public Services	3-57
Recreation.....	3-58
Transportation/Traffic	3-59
Tribal Cultural Resources.....	3-61
Utilities/Service Systems.....	3-62
Wildfire	3-64
Mandatory Findings of Significance	3-66
Chapter 4 Comments and Coordination.....	4-1
4.1 Tribal Coordination.....	4-1
4.2 Biological Resources Coordination	4-1
Chapter 5 List of Preparers	5-1

Chapter 6	Distribution List.....	6-1
Agencies	6-1
Federal Agencies.....		6-1
State Agencies.....		6-1
Elected Officials.....		6-1
Federal Officials.....		6-1
State Officials.....		6-1
County Officials.....		6-2
City Officials.....		6-2

List of Tables

Table 2-1	Project Feature Summary	2-14
Table 2-2	Required Permits and Approvals	2-21
Table 3-1	Environmental Factors Potentially Affected.....	3-1
Table 3-2	California Tiger Salamander Project Impacts.....	3-23
Table 5-1	List of Preparers and Reviewers	5-1

List of Figures

Figure 1-1	Regional Setting.....	1-2
Figure 2-1	Project Components.....	2-2
Figure 3-1	California Tiger Salamander Habitat and Aquatic Resources	3-13
Figure 3-2	FEMA National Flood Hazard.....	3-41
Figure 3-3	Installation of Guardrails and Grinding of PCC Pavement	3-53

List of Appendices

Appendix A	Title VI Policy Statement
Appendix B	Environmental Commitments Record
Appendix C	List of Abbreviated Terms
Appendix D	List of Technical Studies and References
Appendix E	Species Lists
Appendix F	Responses to Comments: Individuals
Appendix G	Biological Opinion

Chapter 1 Proposed Project

1.1 Introduction

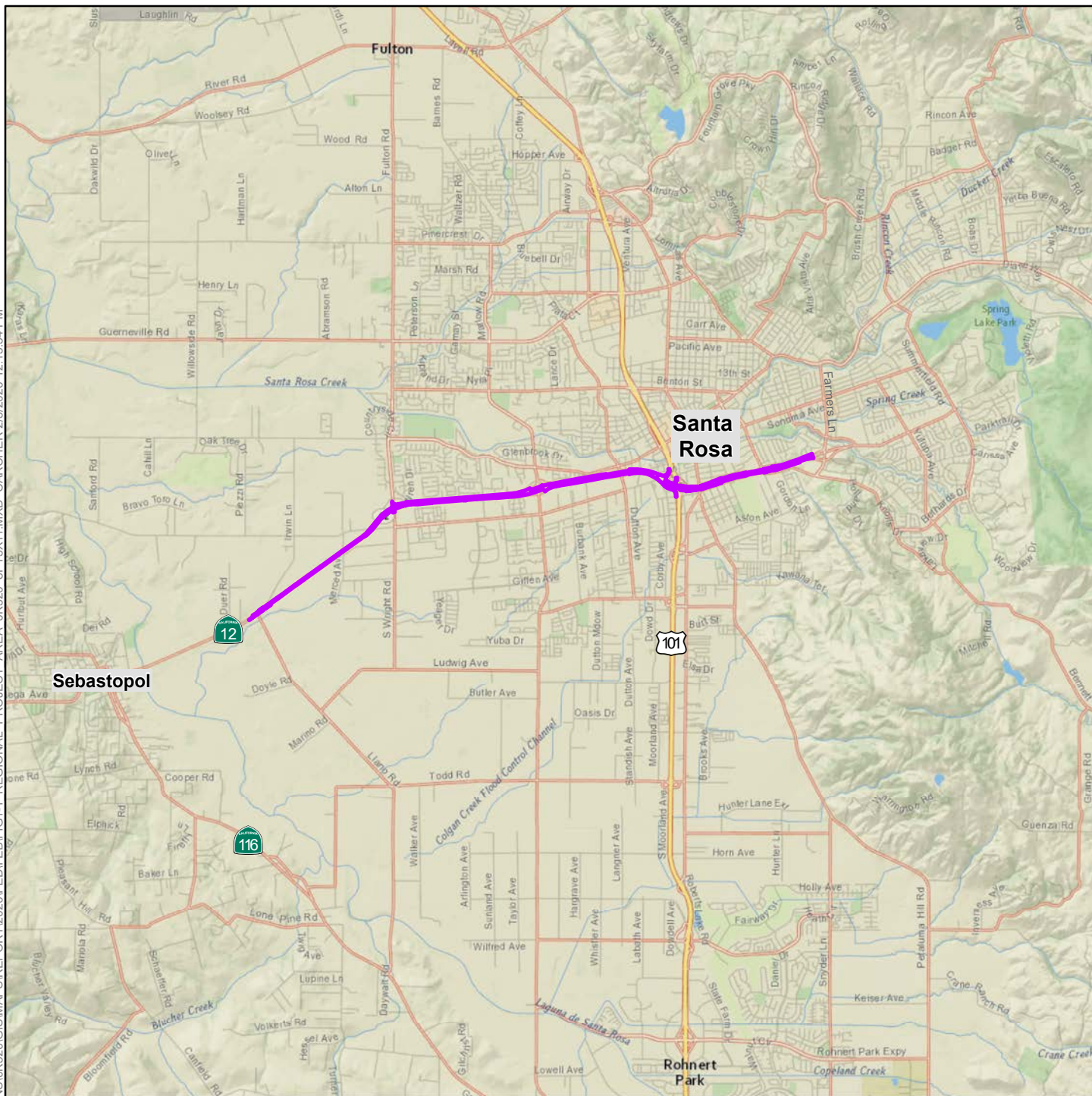
The California Department of Transportation (Caltrans) is the lead agency under the California Environmental Quality Act (CEQA) for the State Route (SR) 12 Capital Preventive Maintenance (CAPM) Project in Sonoma County, California (Project). The Project proposes improvements on a continuous segment of SR 12 between Llano Road (Post Mile [PM] 11.0) and Farmers Lane (PM 17.4) from the outskirts of the City of Sebastopol to the City of Santa Rosa in Sonoma County (see Figure 1-1). Starting from the western end of the Project limits at the Llano Road intersection (PM 11.0), SR 12 consists of a two-lane conventional highway, with 12-foot -wide lanes, approximately 6-foot-wide outside shoulders in each direction, and approximately 5-foot wide shoulder backing that consists of a mixture of dirt and gravel. Approximately 0.5 mile west of the Fulton Road intersection, SR 12 transitions into a four-lane divided freeway. From this point, moving east to the eastern end of the Project limits at Farmers Lane (PM 17.4), SR 12 has 12-foot-wide lanes, approximately 8-foot-wide outside shoulders, and 2- to 5-foot-wide inside shoulders in each direction, with a vegetated median barrier approximately 44 to 46 feet wide.

Total Project costs, including capital and support costs for the proposed Project, are estimated at \$36.4 million and would be funded through the State Highway Operation and Protection Program under the CAPM Program (201.121) for the 2021/2022 Fiscal Year.

1.2 Purpose and Need

The purpose of the Project is to extend the life of the existing pavement, improve the ride quality, and bring select curb ramps up to Americans with Disabilities Act (ADA) standards. An additional purpose of the Project is to comply with the Transportation Asset Management (Caltrans 2018) policy which requires Caltrans assets within the Project limits such as curb ramps, drainage systems, pavement, metal beam guardrail (MBGR), and electrical signals to be up to current standards.

\\BROOKSIDE\FILES\GIS_SHARE\ENB\00_PROJECT\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FEB\FEB1G1-1 REGIONAL PROJECT AREA_0K520_8PT5X11.MXD CARCER 2/3/2020 12:15:54 PM



LEGEND

 Project Limits

USGS 7.5 minute quad maps: Santa Rosa, Sebastopol
Township 007N
Range 007W, 008W

Service Layer Credits: National Geographic, Esri, Garmin,
HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN,
GEBCO, NOAA, increment P Corp.

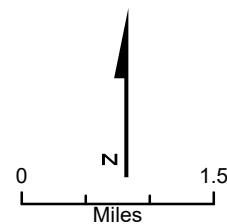
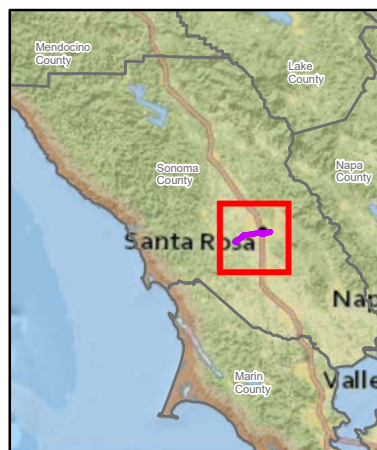


FIGURE 1-1
Regional Setting
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

The Pavement Condition Detailed Report prepared by Caltrans (Caltrans 2015) characterized the existing pavement on SR 12 within the Project limits as being distressed. The pavement's distressed characteristic has resulted in poor ride quality. The distressed characteristic has the potential to result in the failure of the pavement.

The Pavement Condition Detailed Report characterized the existing pavement on SR 12 from PM 11.0 to 12.7 as being in fair to poor condition. The shoulder pavement within these limits has transverse cracks. From PM 12.7 to 17.4 the existing slabs have severe cracking, and the shoulder pavement within this segment has many transverse cracks. The existing MBGR connecting to the bridge rails are nonstandard, and the four existing curb ramps at Fulton Road and two crosswalks at Llano Road do not meet ADA standards.

Chapter 2 Project Description

The Project proposes to resurface the existing pavement on SR 12, including the shoulders, between Llano Road (PM 11.0) and Farmers Lane (PM 17.4).

Improvements on SR 12 would include installation of rumble strips at the centerline and shoulder, as well as reconstructing loop detectors, upgrading electrical signals at intersections, and rebuilding 5 feet of shoulder backing. Additional work includes upgrading 4 curb ramps at the SR 12/Fulton Road and SR 12/ Llano Road intersections to meet ADA standards, replacing up to 38 existing concrete approach slabs with new 1.25-foot-thick slabs, reconstruct drainage infrastructure, and upgrading up to 10,000 linear feet of the existing MBGR to Midwest Guardrail System (MGS). At bridge transition railings, the MBGR connections to bridge railings would be replaced with current standard bridge railing transition and concrete anchor blocks. Improvements would be made to bicycle lane striping at the Fulton Road and SR 12 intersection.

Along the eastbound SR 12 to southbound U.S. Highway 101 (U.S. 101) connector, it is proposed to supplement the drainage on the inside shoulder, with inlets and pipes as necessary. On the outside shoulder, a dike would be constructed from the end of the existing retaining wall to the existing soundwall, which is approximately 300 linear feet, located at the edge of pavement. The low point along the connector would be confirmed and additional drainage provided during the design phase. The area between the soundwall and the travel lane would be re-graded so that this area drains over the dike to the edge of pavement. The existing pipe and flared end section in this area would be removed.

Figure 2-1 includes maps 1 through 9, which show the Project components described above in a west to east direction, including several proposed staging areas.

2.1 Build Alternative

2.1.1 Project Components

The following sections describe the components included in the proposed Project.









2.1.2 Complete Streets

A “complete street” is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the

\\DC1VS01\GIS\PROJECTS\04-0K520\GIS\MAPS\REPORT\2020\FEED\APRIL\FIG2-1 PROJECT ACTIVITIES_04-0K520_8PT5X11.MXD CARCHER 4/3/2020 2:30:52 PM



LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Staging Area
-  Right of Way
-  Midwest Guardrail System
-  Sidewalk
-  New Impervious Area

Imagery source:
Sonoma County 2018

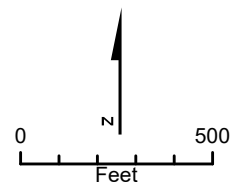
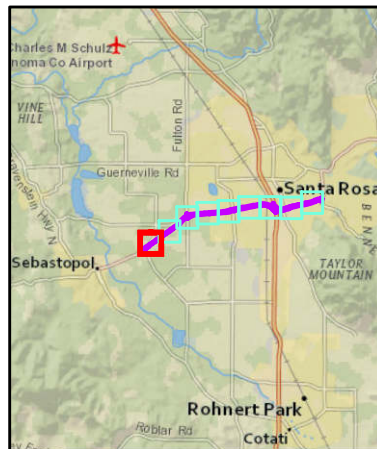
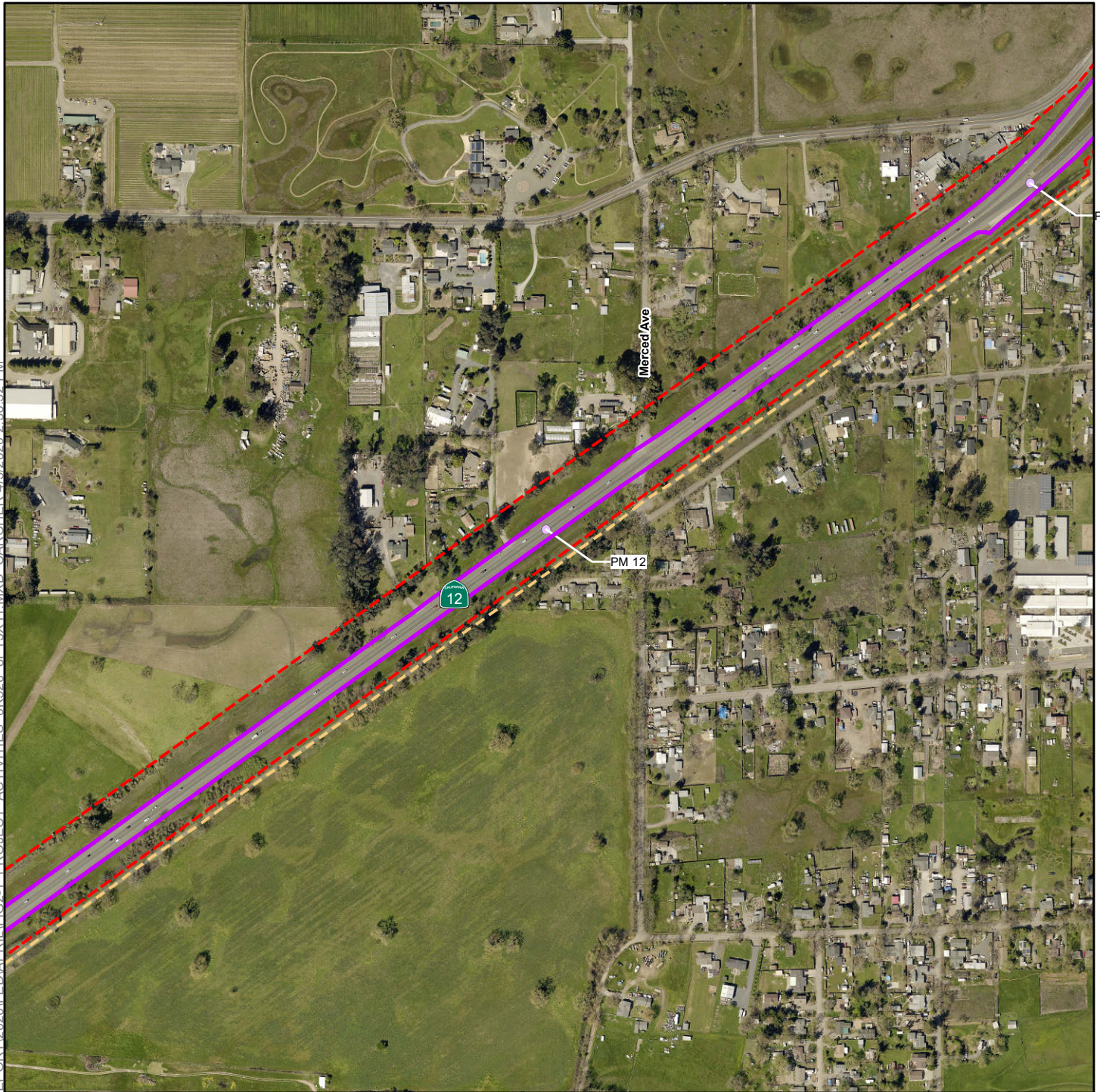


FIGURE 2-1
Map 1 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\DC1VS01\GIS\PROJECTS\04-0K520\GIS\MAPS\REPORT\2020\FEED\APRIL\FIG2-1 PROJECT ACTIVITIES_04K520_8PT5X11.MXD CARCHER 4/3/2020 2:30:52 PM



PM 12.5

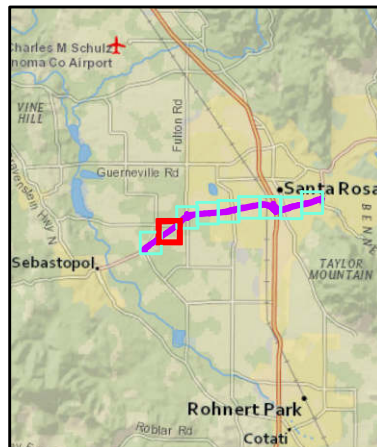
Marced Ave

PM 12

12

LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Right of Way



Imagery source:
Sonoma County 2018

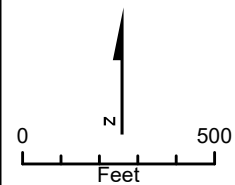
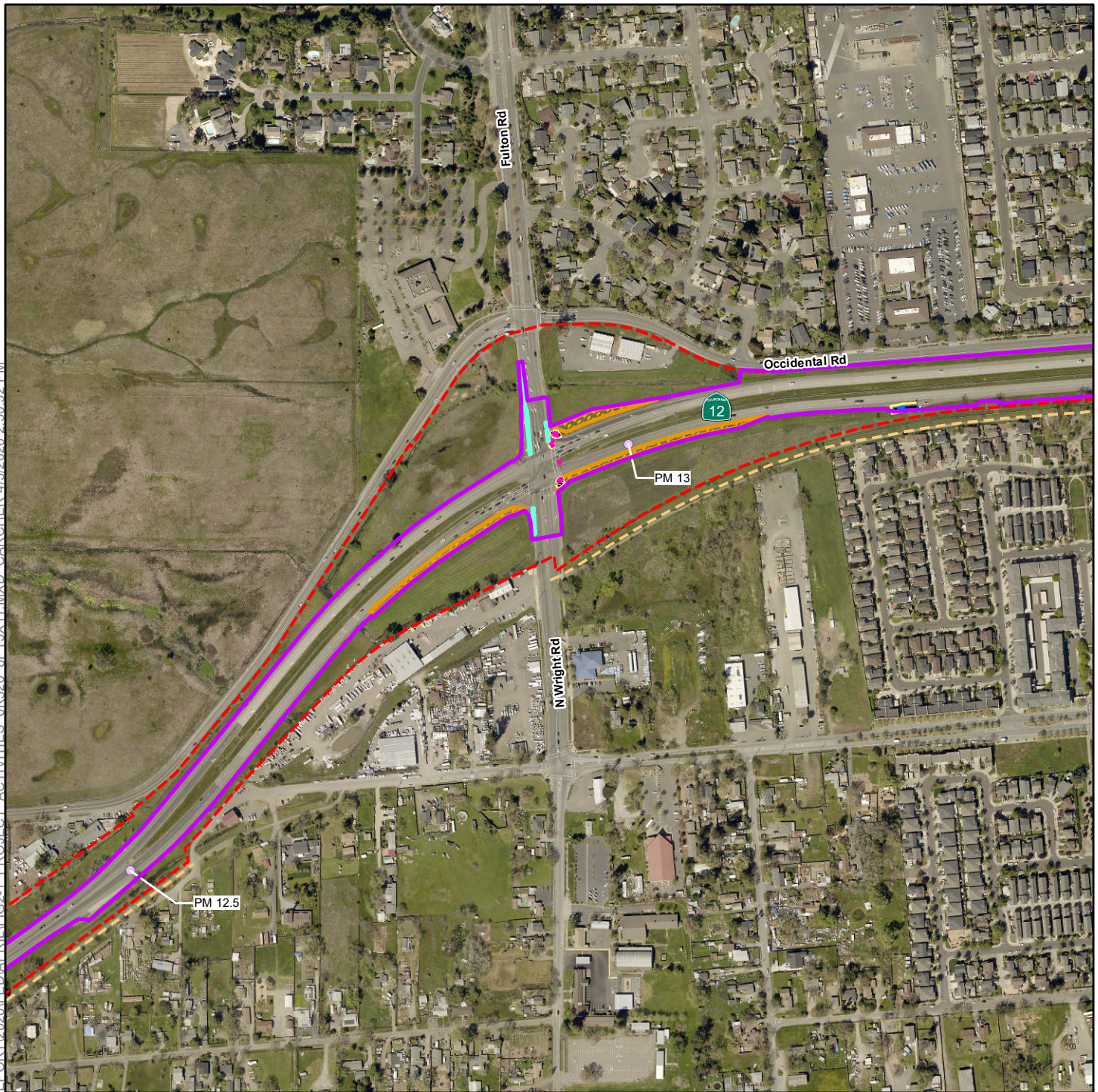


FIGURE 2-1
Map 2 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\DC1VS01\GIS\PROJECTS\04-0520\GIS\MAPS\REPORT\2020\FIG2-1 PROJECT ACTIVITIES_04-0520_8PT5X11.MXD CARCHER 4/3/2020 2:30:52 PM



LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Staging Area
-  Bicycle Lane Striping
-  Right of Way
-  Americans with Disabilities Act Curb Ramp Upgrades
-  Midwest Guardrail System
-  Sidewalk
-  New Impervious Area

Imagery source:
Sonoma County 2018

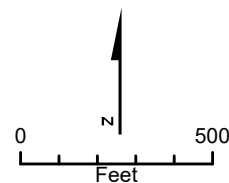
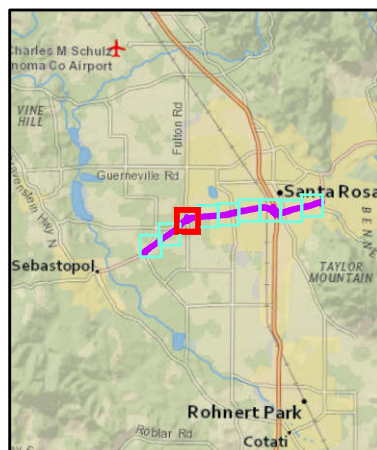
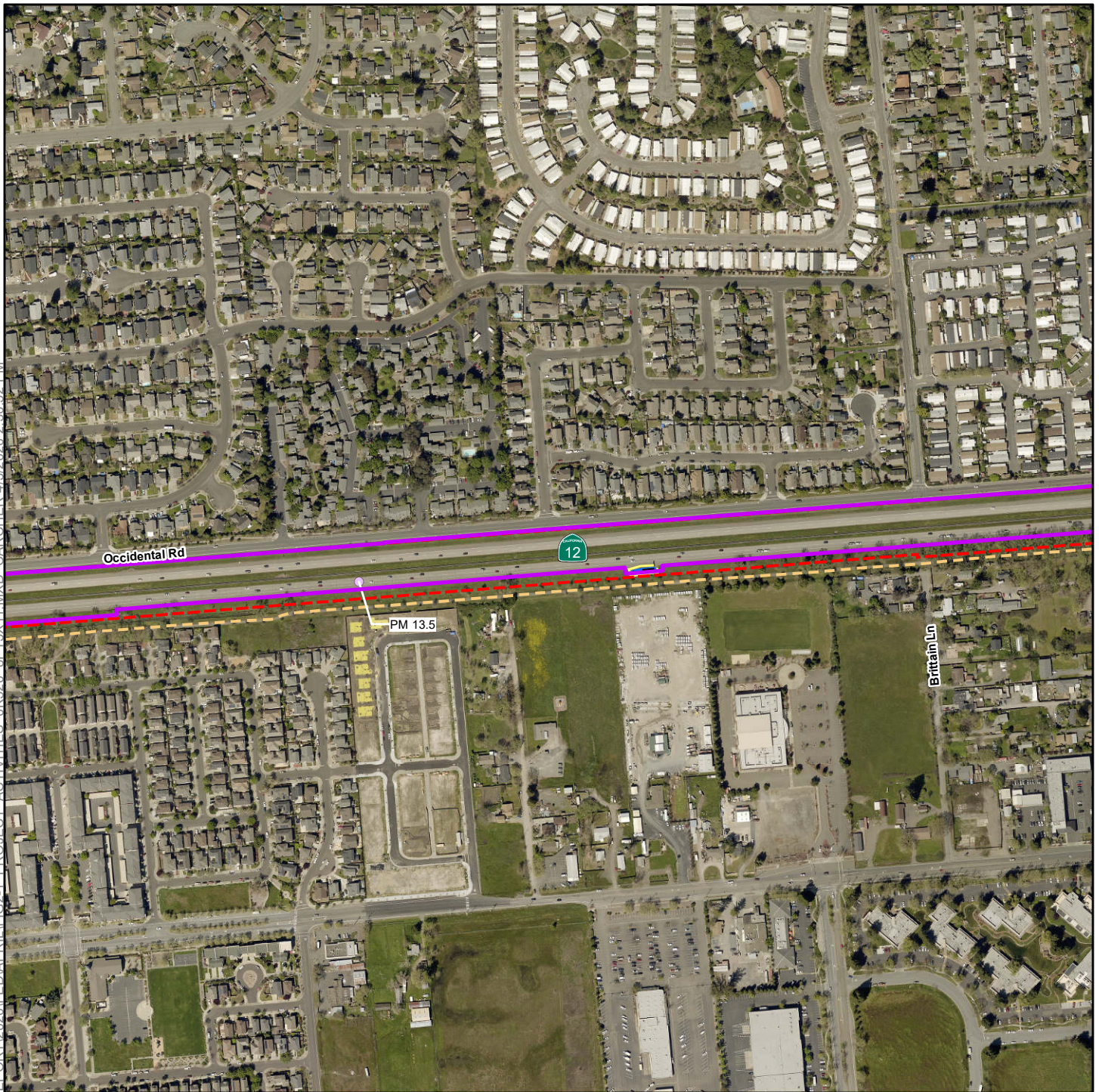


FIGURE 2-1
Map 3 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\DC1VS01\GIS\PROJECTS\0K520\GIS\MAPS\REPORT\2020\EA\FIG2-1 PROJECT ACTIVITIES_0K520_8PT5X11.MXD CARCHER 4/3/2020 2:30:52 PM



LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Right of Way
-  Midwest Guardrail System
-  New Impervious Area

Imagery source:
Sonoma County 2018

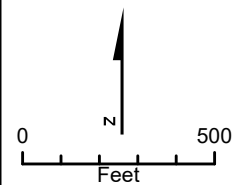
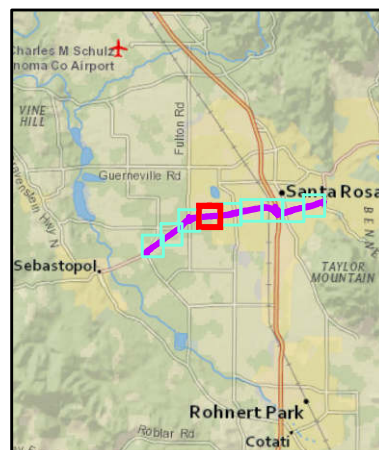


FIGURE 2-1
Map 4 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\DC1VS01\GIS\PROJECTS\04K520\GIS\MAPS\REPORT\2020\FEED\APRIL\FIG2-1 PROJECT ACTIVITIES_04K520_8PT5X11.MXD CARCHER 4/3/2020 2:30:52 PM



LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Right of Way
-  Midwest Guardrail System
-  New Impervious Area

Imagery source:
Sonoma County 2018

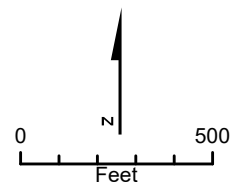


FIGURE 2-1
Map 5 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\DC1VS01\GIS\PROJECTS\CALTRANS\04520\GIS\MAPS\REPORT\2020\FEED\APRIL\G2-1_PROJECT_ACTIVITIES_04520_8PT5X11.MXD_CARCHER 4/3/2020 2:30:52 PM



LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Right of Way
-  Approach Slab
-  Drainage Improvement
-  Midwest Guardrail System
-  New Impervious Area

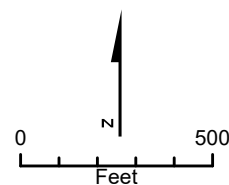
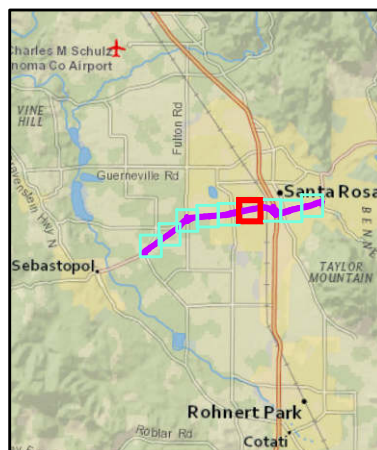
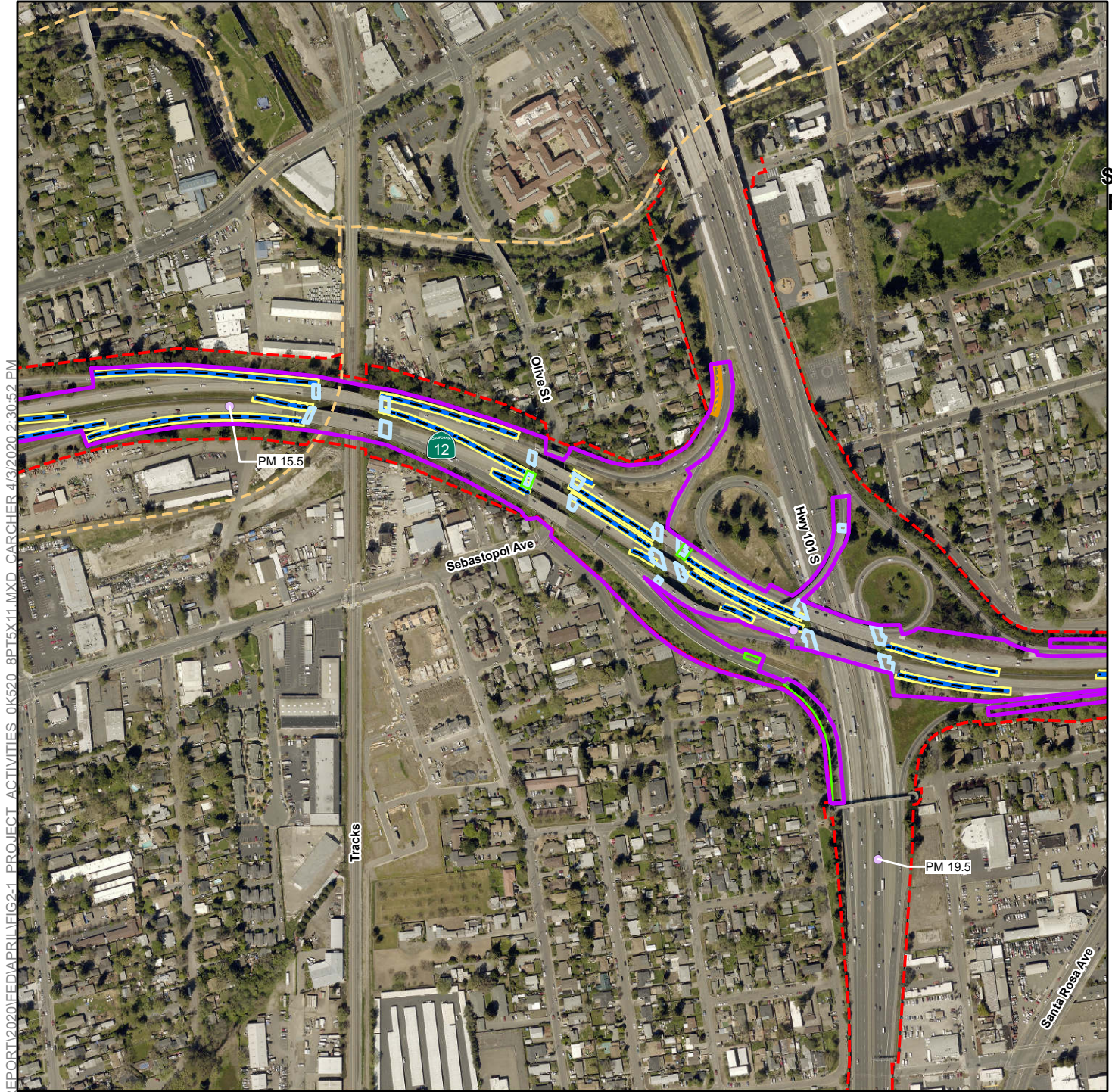


FIGURE 2-1
Map 6 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

Imagery source:
Sonoma County 2018

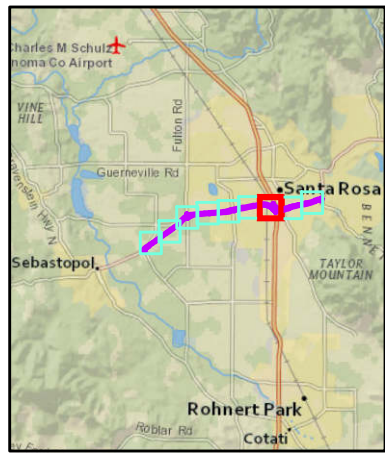


Santa
Rosa

\\DC1VS011\GIS\PROJECTS\04K520\GIS\MAPS\REPORT\2020\FEED\APRIL\FIG2-1 PROJECT ACTIVITIES_04K520_8PT5X11.MXD_CARCHER 4/3/2020 2:30:52 PM

LEGEND

- Project Limits
- Mile Post
- Joe Rodota Trail
- Staging Area
- Right of Way
- Approach Slab
- Drainage Improvement
- Midwest Guardrail System
- New Impervious Area



Imagery source:
Sonoma County 2018

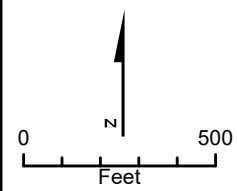


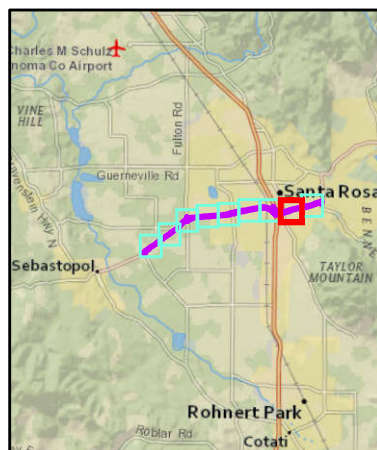
FIGURE 2-1
Map 7 of 9
Project Components
 State Route 12 Capital Preventive
 Maintenance Project
 EA 04-0K520, SON-12-11.0/17.4
 Sonoma County, California

\\DC1VS01\GIS\PROJECTS\04-0K520\GIS\MAPS\REPORT\2020\FEED\APRIL\G2-1 PROJECT ACTIVITIES_04K520_8PT5X11.MXD, CARCHER 4/3/2020 2:30:52 PM



LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Right of Way
-  Approach Slab
-  Midwest Guardrail System
-  New Impervious Area



Imagery source:
Sonoma County 2018

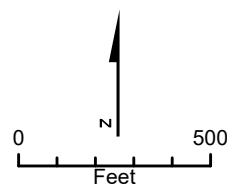


FIGURE 2-1
Map 8 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\DC1VS011\GIS\PROJECTS\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FEED\APRIL\FIG2-1 PROJECT ACTIVITIES_0K520_8PT5X11.MXD CARCHER 4/3/2020 2:30:52 PM



LEGEND

-  Project Limits
-  Mile Post
-  Joe Rodota Trail
-  Staging Area
-  Right of Way
-  Approach Slab
-  Midwest Guardrail System
-  New Impervious Area

Imagery source:
Sonoma County 2018

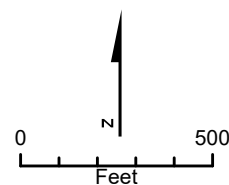
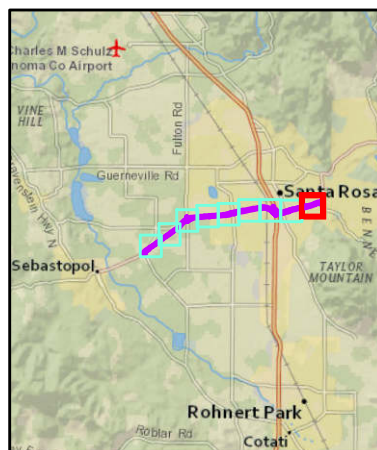


FIGURE 2-1
Map 9 of 9
Project Components
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

facility (Caltrans 2019a). Within the Project limits, improvements would be made to existing bicycle lanes along Fulton Road near the intersection with SR 12. The Project includes the following complete street improvements to bicycle and pedestrian facilities:

- On Fulton Road, add dashed bicycle lane striping to connect the existing bicycle lanes to the bicycle pockets (bicycle lane striping at the intersection) that are on the left-hand side of the right-turn-only vehicle lane.
- On the eastbound SR 12 right-turn slip lane and the westbound SR 12 right-turn slip lane onto Fulton Road (a slip lane is a lane that allows motorists to make a right turn at an intersection without entering the intersection), add dashed bicycle lane striping with green markings between the dashes to provide continuity of the bicycle lanes on Fulton Road and draw attention for drivers using the slip lanes to yield to bicycles.

2.1.3 Right of Way

All proposed improvements are within the Caltrans right of way (ROW). No temporary construction easements (TCEs) or permanent easements are anticipated to be needed for construction activities.

2.1.4 Utilities

Underground utility relocation may be necessary during construction activities for ADA curb ramp work at Fulton Road and Llano Road. Pacific Gas and Electric Company (PG&E) and American Telephone and Telegraph (AT&T) facilities are located within the Project limits. Verification of utility locations and necessary relocations would be determined during the design phase.

2.1.5 Staged Construction

Construction of the proposed Project is anticipated to be completed in three phases and require a total of approximately 220 working days to complete, weather permitting.

- The first phase of construction would involve installation of construction area signs, traffic control systems, environmentally sensitive area (ESA) fencing, temporary K-rail (as required), and crash cushions, as well as clearing and grubbing. The first phase would take approximately 20 working days.

- The second phase would involve removing existing features, resurfacing the roadway, rebuilding shoulder backing that would be damaged by equipment and construction work-related activities during grinding and paving operations, installing rumble strips, construction of drainage improvements, upgrading the existing curb ramps to ADA standards at Fulton Road and Llano Road intersections, installing the new MGS, construction of up to 38 concrete approach slabs, electrical work, bike lane improvements, and striping. The second phase would take approximately 180 working days, with some potential overlap between the phases.
- The third phase would take approximately 20 working days and would entail removing all construction infrastructure from the Project limits, installing permanent erosion control measures and restoring the construction area to its preconstruction condition in accordance with applicable permits and Caltrans requirements.

2.1.6 Construction Activities

In order to complete the proposed Project, typical construction best management practices (BMPs) would be implemented by Caltrans, including but not limited to, lane and shoulder closure, detours, staging, construction waste, construction noise, and night work.

Rehabilitations of the SR 12 mainline is proposed to occur at nighttime, requiring lane and shoulder closures to allow for construction activities, while drainage work along the eastbound SR 12 to southbound U.S. 101 connector would require temporary full closures and the implementation of detours.

Sidewalk closures would occur in areas where improvements to the curb ramps are proposed. Temporary pedestrian detours would be provided to ensure safe access to businesses during construction. Access to private properties and driveways would be maintained throughout construction. Temporary K-rails would be installed for construction to provide safe pedestrian access and worker safety.

The majority of construction activities associated with curb ramps and drainage improvements would occur during daylight hours. Some night work may be needed for drainage improvements along the eastbound SR 12 to southbound U.S. 101 connector. All fences within the Project limits that are affected by construction activities would be replaced following Project completion.

Construction equipment and materials would be staged outside the paved areas and within the ROW. Construction activities would use equipment such as excavators, backhoes, dump trucks, saw cutting machines, loader, forklifts, roller, pavers, and flatbeds. Rebuilding shoulder backing would require up to 7 feet from edge of pavement during construction.

2.1.7 Construction Schedule and Equipment Staging

Project construction is anticipated to require two construction seasons, beginning in the spring of 2022 and ending in the winter of 2023. The Project would require a total of approximately 220 working days to complete, weather permitting: 20 working days for the first phase of construction, 180 working days for the second phase of construction, and 20 working days for the third phase of construction. Duration of paving in any given area would be up to 2 weeks, meaning equipment and/or staging would occur on the same segment of highway for 2 weeks at a time. Construction equipment and materials would be staged outside the paved areas and within the ROW east of the Fulton Road intersection. West of the Fulton Road intersection, staging will be at the locations shown on Figure 2-1.

2.1.8 Vegetation Trimming and Removal

Vegetation clearing and grubbing would occur within the Project limits immediately adjacent to construction activities. The Project is expected to require minimal vegetation removal in order to clear obstructions for construction equipment where work is proposed off pavement including: replace MBGR and failed downdrains, regrade the area between the sound wall and the travel lane along the eastbound SR 12 to southbound U.S. 101, connector, and rebuild shoulder backing.

2.1.9 Project Features

The proposed Project contains a number of standardized project components which are employed on most, if not all, of Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed Project. These components are referenced as Project Features in Chapter 3 as they pertain to different environmental resources, and are separated out from avoidance and minimization measures (AMMs) and Mitigation Measures, which directly relate to the impacts resulting from the proposed Project.

Table 2-1 lists the Project Features that would be implemented by Caltrans to reduce or avoid potential impacts to the human and natural environment.

Table 2-1 Project Feature Summary

Resource Area	Project Feature Reference	Project Feature
Aesthetics	Feature AES-1	Vegetation Protection. Existing trees and vegetation would be preserved to the extent feasible. Trees and vegetation outside of clearing and grubbing limits would be protected from the contractor's operations, equipment, and materials storage. Tree trimming and pruning, where required, would be under the direction of a qualified biologist.
Aesthetics	Feature AES-2	Erosion Control. After construction, all areas cleared within the Project limits for uses such as contractor access, staging and trenching operations would be treated with appropriate erosion control measures where required.
Aesthetics	Feature AES-3	Construction Staging. Except as detailed in the Contract Plans, staging areas would not affect existing landscaped areas resulting in death and/or removal of trees and shrubs, or disruption and destruction of existing irrigation facilities.
Aesthetics	Feature AES-4	Construction Waste. During construction operations unsightly material and equipment in staging areas would be placed where they are less visible and/or covered where possible.
Aesthetics	Feature AES-5	Construction Lighting. Construction activities would limit all construction lighting to within the immediate vicinity of active work during night hours and avoid light trespass through directional lighting, shielding, and other measures as needed. For required nighttime work, all lighting would be directed downwards and towards the active construction area. This would reduce and avoid light impacts on travelers, nearby residences, and nearby recreational facility users.
Air Quality	Feature AIR-1	Dust Control. Dust control measures would be included in the Storm Water Pollution Prevention Plan (SWPPP) and implemented to minimize construction impacts to existing communities. The plan would incorporate measures such as sprinkling, speed limits, transport of materials, and timely revegetation of disturbed areas as needed, as well as posting a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints and at the Bay Area Air Quality Management District (BAAQMD) regarding compliance with applicable regulations. Water or dust palliative would be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emissions or at the ROW line, depending on air pollution control district and air quality management district regulations and local ordinances.
Air Quality	Feature AIR-2	Idling and Access Points. Idling times would be minimized either by shutting off equipment when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage would be provided for construction workers at all access points. Construction activities involving the extended idling of diesel equipment or vehicles would be prohibited, to the extent feasible.

Resource Area	Project Feature Reference	Project Feature
Air Quality	Feature AIR-3	Maintaining Construction Equipment and Vehicles. All construction equipment and vehicles would be maintained and properly tuned in accordance with manufacturer's specifications. All equipment would be checked by a certified mechanic and determined to be running in proper condition prior to operation.
Air Quality	Feature AIR-4	Contractor Air Quality Compliance. The construction contractor must comply with the Caltrans Standard Specifications in Section 14-9, which require contractor compliance with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
Biological Resources – Natural Communities	Feature BIO-1	Designated Construction Areas, Delineated ESAs, Work Areas, and Equipment and Materials Storage Sites. Caltrans would delineate construction areas and ESAs (areas containing sensitive habitats adjacent to or within the Project limits for which physical disturbance is not allowed) on the final construction plans. The agency-approved biologist would be onsite to direct the installation of ESA fencing, flagging, or other approved means of delineation prior to the start of construction, to prevent encroachment of personnel and equipment into sensitive areas during construction. When feasible staging, storage, and parking areas would be located on paved or graveled surfaces within the Caltrans ROW and away from any designated ESAs, to minimize construction impacts to protected resources. Equipment and materials storage sites would also be located as far away from residential uses as practicable. At the discretion of the agency-approved biologist, limits would also be defined near other environmentally sensitive locations, such as bird nests, when necessary. The ESA fencing, flagging, or other material would be removed when construction activities are complete in the immediate vicinity.
Biological Resources – Natural Communities	Feature BIO-2	Wildlife Exclusion Fencing. Before starting construction, Wildlife Exclusion Fencing (WEF) would be installed around staging areas located within 1.3 miles of California Tiger Salamander (CTS; <i>Ambystoma californiense</i>) breeding pools, as mapped by the Santa Rosa Plain Conservation Strategy (SRPCS). The WEF would remain in place throughout the duration of the Project related activities at the staging area, which is expected to be one to two weeks for a given location. The final plans would depict all locations where WEF would be installed and indicate how it would be installed. The special provisions in the bid solicitation package would clearly describe acceptable fencing material.
Biological Resources – Animal and Plant Species	Feature BIO-3	Construction Work Windows. Construction work windows would be incorporated into the Project including, but not limited to: vegetation removal would be scheduled outside the bird nesting season (February 1 to September 30) to the extent feasible or consistent with Feature BIO-6. Biological restrictions to avoid impacts to California tiger salamander include avoidance of working in wet weather by restricting ground disturbing activities in suitable CTS habitat to be between April 15 and October 15. This would be required for activities west of the Fulton Road intersection (PM 13.1) and does not apply to activities within the existing pavement limits or activities east of the Fulton Road intersection.

Resource Area	Project Feature Reference	Project Feature
Biological Resources – Animal and Plant Species	Feature BIO-4	Worker Environmental Awareness Training. All construction personnel would attend a mandatory environmental education program, to be delivered by an agency-approved biologist, prior to beginning construction, or prior to beginning work on the Project. This program would provide information on special-status species and the employees' personal responsibility in avoiding impacts to species during construction. At a minimum, the training would include: a description of CTS and migratory birds and their habitats; a discussion of the potential occurrence of these species within the Project limits; an explanation of the status of these species and protection under FESA and CESA; the description of measures to be implemented to conserve listed species and their habitats as they relate to the work site. Information would be provided on protected species to construction personnel, along with compliance reminders and relevant contact information. Documentation of the training and sign-in sheets would be kept on file and available on request.
Biological Resources – Animal and Plant Species	Feature BIO-5	Pre-construction Surveys and Biological Monitoring. An agency-approved biologist would conduct pre-construction surveys for special-status species. The biologist would be present during construction activities, including establishment of ESAs, vegetation clearing and grubbing, ground disturbance, and other work activities when special-status species may be harmed or harassed. If at any point, any listed species is discovered within the Project limits, a 50-foot-wide work restriction buffer would be applied until the animal moves out of the area or the animal is relocated out of harm's way; the regulatory agency(ies) would be notified.
Biological Resources – Animal and Plant Species	Feature BIO-6	Pre-construction Surveys for Nesting Birds. Bird Protection Special Provision would be included in the construction contract. A preconstruction survey for migratory birds and raptors would be required within fourteen (14) days prior to construction if construction activities occur within migratory bird nesting season (February 1 through September 30) and subsequent surveys would be required every three days throughout the nesting season. If migratory birds or raptors are found nesting adjacent to a work area during construction activities, the following ESA buffers would be required: If an active raptor nest is observed, a 300-foot ESA buffer must be implemented to avoid impacting the young until they have fledged; a 50-foot ESA buffer around any active nests of non-raptor migratory birds is required to protect the young until they have fledged, or as otherwise determined by the agency-approved biologist.
Biological Resources – Animal and Plant Species	Feature BIO-7	Biologist Authority to Stop Construction. The agency-approved biologist would stop work, as directed by the RE, in the vicinity of any protected species that are discovered. Work would not begin again until the individual species is either relocated by the monitor or moves out of harm's way by itself.

Resource Area	Project Feature Reference	Project Feature
Biological Resources – Animal and Plant Species	Feature BIO-8	Avoidance of Entrapment. To prevent inadvertent entrapment of animals during construction, excavated, steep-walled holes or trenches more than 1 foot deep would be covered at the close of each working day using plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the Project limits overnight would be inspected before they are subsequently moved, capped, and/or buried.
Biological Resources – Animal and Plant Species	Feature BIO-9	<p>Construction Site Management Practices. The following site restrictions would be implemented to avoid or minimize potential effects on listed species and their habitats, pursuant to Caltrans 2018 Standard Specifications and Special Provisions:</p> <ul style="list-style-type: none"> a. Enforce a speed limit of 15 mph on unpaved areas within the Project limits to reduce dust and soil disturbance. b. Locate construction access, staging, storage, and parking areas within Caltrans ROW outside any designated ESAs. Access routes, staging and storage areas, and contractor parking would be limited to the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork would be clearly marked before initiating construction or grading. c. Certify, to the maximum extent practicable, borrow material is non-toxic and weed free. d. Enclose food and food-related trash items in sealed trash containers and remove them from the site at the end of each day. e. Prohibit pets from entering the Project limits during construction. f. Prohibit firearms within the Project limits, except for those carried by authorized security personnel or local, state, or federal law enforcement officials. g. Maintain equipment to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents and developing a spill response plan. Hazardous materials, such as fuels, oils, and solvents, would be stored in manufacturer approved containers at a designated location that is at least 200 feet away from downslope aquatic habitats, if feasible. If storing hazardous materials at least 200 feet from downslope aquatic habitats is not feasible, additional requirements are outlined in Feature HYD-1 Stormwater Pollution Prevention Plan. h. All grindings, asphalt waste, and concrete waste shall be (1) hauled offsite by the end of shift, or (2) stored in upslope areas, a minimum of 200 feet from any aquatic resources, if feasible, and (3) would be stored within previously disturbed areas absent of habitat, which are protected by secondary containment measures consistent with proposed Caltrans BMPs designed specifically to contain spills or discharges of deleterious materials. If options 1 through 3 are not feasible, refer to Feature HYD-1 Stormwater Pollution Prevention Plan.

Resource Area	Project Feature Reference	Project Feature
		i. Dedicated fueling and refueling practices would be designated as part of the approved SWPPP. Dedicated fueling areas would be protected from stormwater run-off and would be located at a minimum of 200 feet from downslope drainage facilities and water courses, if feasible. If not feasible, refer to Feature HYD-1 Stormwater Pollution Prevention Plan.
Biological Resources – Invasive Species	Feature BIO-10	Landscaping and Erosion Control Plan. A landscaping and erosion control plan would be prepared to restore disturbed areas with climate-adapted species.
Biological Resources – Invasive Species	Feature BIO-11	Cleaning of Equipment. Equipment would be thoroughly cleaned before arriving in the Project limits to prevent the spread of noxious weeds from other locations.
Biological Resources – Invasive Species	Feature BIO-12	Reduce Spread of Invasive Species. Noxious weeds would be controlled within the Project construction site in accordance with Caltrans' Highway Design Manual Topic 110.5, "Control of Noxious Weeds – Exotic and Invasive Species," and Executive Order 13112 (Invasive Species), and by methods approved by a Caltrans' landscape architect or vegetation control specialist.
Biological Resources – Threatened and Endangered Species	Feature BIO-13	Special-Status Species Handling. An agency-approved biologist would handle threatened and endangered species using approved handling techniques. Standard species-handling protocols would be used if individuals are discovered within the Project limits.
Biological Resources – Threatened and Endangered Species	Feature BIO-14	Consultation with Agencies. Coordination with the regulatory agency(ies) would occur if individuals of species under federal and/or state jurisdiction are found within the Project limits during construction.
Biological Resources – Threatened and Endangered Species	Feature BIO-15	No Monofilament Netting. Plastic monofilament netting (erosion control matting) or similar material would not be used because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds.
Cultural Resources	Feature CUL-1	Discovery of Cultural Resources. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a Caltrans qualified archaeologist can assess the nature and significance of the find.

Resource Area	Project Feature Reference	Project Feature
Cultural Resources	Feature CUL-2	Discovery of Human Remains. If remains are discovered during excavation, all work within 60 feet of the discovery would halt and Caltrans' Cultural Resource Studies office would be called. Caltrans' Cultural Resources Studies Office Staff would assess the remains and, if determined human, would contact the County Coroner as 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, the Coroner would contact the Native American Heritage Commission who would then assign and notify a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on respectful treatment and reburial of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.
Greenhouse gas emissions	Feature GHG-1	Waste Reduction. If practicable, nonhazardous waste and excess material would be recycled. If recycling is not practicable, the material would be disposed of appropriately.
Greenhouse gas emissions	Feature GHG-2	Energy Reduction. Solar sign boards would be used when feasible.
Hazards and Hazardous Materials	Feature HAZ-1	Aerially Deposited Lead Work Plan. A work plan for aerially deposited lead if required would be prepared during the design (Plans, Specifications and Estimate [PS&E]) phase.
Hazards and Hazardous Materials	Feature HAZ-2	Hazardous Materials Incident Contingency Plan. A hazardous materials incident contingency plan would be prepared to report, contain, and mitigate roadway spills. The plan would designate a chain of command for notification, evacuation, response, and cleanup of roadway spills.
Hydrology and Water Quality	Feature HYD-1	<p>Stormwater Pollution Prevention Plan. A SWPPP would be developed and erosion control BMPs would be implemented in compliance with the requirements of the North Coast Regional Water Quality Control Board (RWQCB). A SWPPP must be prepared by the Contractor and approved by Caltrans, pursuant to Caltrans 2018 Standard Specification 13-3 and Special Provisions. Protective measures would include, at a minimum:</p> <ul style="list-style-type: none"> a. Disallowing any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses. b. All grindings, asphalt waste, and concrete waste would be (1) hauled offsite by the end of shift, or (2) stored in upslope areas, a minimum of 50 feet, from any aquatic resources, within previously disturbed areas absent of habitat, and protected by secondary containment measures consistent with proposed Caltrans BMPs designed specifically to contain spills or discharges of deleterious materials. c. Dedicated fueling and refueling practices would be designated as part of the approved SWPPP. Dedicated fueling areas would be protected from stormwater run-off and would be located at a minimum of 50 feet from downslope drainage facilities and water courses. d. Fueling must be performed on level-grade areas. Onsite fueling would only be used when and where it is impractical to send vehicles and equipment offsite for fueling. When fueling must occur onsite, the contractor would designate an area to be used subject to the approval of the Caltrans Resident Engineer. Drip pans or absorbent pads would be used during onsite vehicle and equipment fueling.

Resource Area	Project Feature Reference	Project Feature
		<ul style="list-style-type: none"> e. Spill containment kits would be maintained onsite at all times during construction operations and/or staging or fueling of equipment. f. Dust control measures consistent with Air Quality Project Features would be implemented. Dust control would be addressed during the environmental education session. g. Coir logs or straw wattles would be installed in accordance with the Caltrans BMP Guidance Handbook, to capture sediment. h. Graded areas would be protected from erosion using a combination of silt fences, erosion control netting (such as jute or coir), and fiber rolls in accordance with the Caltrans BMP Guidance Handbook.
Hydrology and Water Quality	Feature HYD-2	Water Quality BMPs. To address the temporary water quality impacts resulting from the construction activities in the Project limits, BMPs would include the measures of sediment control, pH control, material and job site management, and erosion control.
Hydrology and Water Quality	Feature HYD-3	Low-Impact Development Controls. The proposed added impervious area is more than 1 acre (1.34 acres) therefore, water quality permanent BMPs are required. The Municipal Regional Permit prioritizes the use of low-impact development measures for stormwater treatment controls. These measures are harvesting and use, infiltration, evapotranspiration, and biotreatment. Other conventional treatment measures (such as basins and vaults) are allowable under special conditions outlined in the permit. Caltrans has an approved list of treatment BMPs that have been studied and verified to provide pollutant removal from stormwater. The permanent BMPs would be incorporated during construction phase to reduce the pollutants in stormwater discharges.
Hydrology and Water Quality	Feature HYD-4	Seasonal Restrictions for Water Quality. <ul style="list-style-type: none"> a. Ground disturbing activities in suitable CTS habitat would be conducted between April 15 and October 15, depending on the level of rainfall and/or site conditions. b. Work within drainages would occur between June 1 and October 15.
Noise	Feature NOI-1	Idling of Internal Combustion Engines. Unnecessary idling of internal combustion engines would be avoided within 100 feet of sensitive receptors.
Noise	Feature NOI-2	Maintaining Internal Combustion Engines. All internal combustion engines would be maintained properly to minimize noise generation.
Transportation and Traffic	Feature TRA-1	Traffic Management Plan (TMP). A TMP would be developed by Caltrans. The TMP would include elements such as haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing, to reduce impacts to local residents as feasible and maintain access for police, fire, and medical services in the local area. Temporary pedestrian and bicyclist access would be provided during construction.

Resource Area	Project Feature Reference	Project Feature
Utilities and Service Systems	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 at least once daily from the Project limits. A Trash Reduction System would also be developed and implemented per Caltrans Statewide National Pollution Discharge Elimination System (NPDES) Permit and San Francisco RWQCB Cease and Desist Order.
Utilities and Service Systems	Feature UTI-2	Notify Utility Owners of Construction Schedule to Protect Utilities. All affected utility companies, including PG&E and AT&T, would be notified of construction schedules for proposed Project work so that they can relocate cable or provide special instructions for cable protection if needed, and minimize disruption of utility service.

2.2 No-Build Alternative

The No-Build Alternative would mean that the Project would not be constructed, and there would be no improvements to the pavement or existing ancillary infrastructure within the Project limits. As such, this segment of SR 12 would continue to deteriorate, and there would be no improvement to ride quality. The MBGR and curb ramps would continue to be nonstandard. This alternative does not meet the purpose and need for the Project.

2.3 Permits and Approvals Needed

Table 2-2 summarizes the permits and approvals anticipated for the proposed Project by the respective agencies, as well as permit and approval status. Approval of Project funding is required by the California Transportation Commission for each phase of the Project.

Table 2-2 Required Permits and Approvals

Agency	Permit	Permit Approval Status
California Department of Fish and Wildlife	Consistency Determination	The target date to submit a request for a Consistency Determination is spring 2021.
United States Fish and Wildlife Service	Biological Opinion with Incidental Take Statement	The Biological Opinion was issued on April 17, 2020 (see Appendix G).

Chapter 3 California Environmental Quality Act Evaluation

This chapter evaluates potential environmental impacts of the proposed Project, as described in Chapter 2 as they relate to the CEQA checklist to comply with State CEQA Guidelines (Title 14 California Code of Regulations, Division 6, Chapter 3, Section 15091).

Environmental Factors Potentially Affected

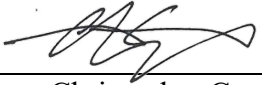
As part of the scoping and environmental analysis carried out for the proposed Project, the following environmental issues were considered, but no adverse impacts were identified. As a result, there is limited discussion in this document on the following resources: agriculture and forestry, cultural resources, land use and planning, mineral resources, population and housing, public services, recreation, and tribal cultural resources. The environmental factors checked below in Table 3-1 would be potentially affected by the proposed Project. Further analyses of these environmental factors are included in the following sections.

Table 3-1 Environmental Factors Potentially Affected

X	Aesthetics		Agriculture and Forestry	X	Air Quality
X	Biological Resources		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

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: June 8, 2020
Printed Name: Christopher Caputo		

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 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, technical 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.

As noted previously, Project Features, which may include both design elements of the proposed Project and standardized measures that are applied to all or most Caltrans projects, such as BMPs and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the Project and are considered prior to any significance determinations. A list of the proposed Project’s Project Features, AMMs, and Mitigation Measures can be reviewed in the Environmental Commitments Record in Appendix B.

Aesthetics

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 *Scenic Resource Evaluation and Visual Impact Assessment* was completed for the Project in September 2019 (Caltrans 2019b). The west end of the Project corridor is predominately rural in character with a grassy road edge and scattered groups of mature trees and views to adjacent agricultural uses. East toward Santa Rosa, adjacent land use transitions to single-family residential and commercial use. After crossing U.S. 101, the roadway is bordered by soundwalls and downslope mature trees, which are considered a dominant feature of the Project corridor. At the eastern end of the Project, from PM 16.0 to 17.4, SR 12 is eligible, but currently not designed as, a State Scenic Highway.

a, b) No Impact

The Project would have no impact on scenic vistas, or visual resources. There are no scenic vistas within the Project limits and the current views from SR 12 would not be degraded. Overall, the Project would not impact or degrade the existing visual quality of the Project limits or its surroundings.

SR 12 is eligible for designation as a State Scenic Highway, but not designated as such. Designated scenic highways are eligible depending on how much of the natural landscape can be seen by the travelling public. Although there would be temporary visual impacts related to construction equipment use and staging, fencing, and K-rails which would decrease the scenic views of passerby travelers on SR 12 and recreationalists on the Joe Rodota Trail, this would be minimal during construction activities because passerby traffic's focus would be ahead, on the road. However, with implementation of Project Features AES-1 through AES-5 in Table 2-1, the Project would result in no impact.

c) Less than Significant Impact

The Project would not substantially degrade the existing visual character or quality of public view of the site and its surroundings. The Project would be compatible with the existing visual character and quality of the corridor despite temporary construction activities.

The replacement of the MBGR with MGS would be in-kind and would require minimal vegetation removal, which would include tree trimming to clear obstructions for construction and clearing and grubbing. Staging areas would require removal of existing landscaped vegetation and removal of existing irrigation facilities. However, with implementation of AMM-AES-1, Replace Removed Trees, and Project Features AES-1 through AES-5 in Table 2-1, the Project would result in less than significant impact.

d) Less than Significant Impact

The Project would not create a new source of light or glare. Construction activities would require the need for temporary lighting primarily due to nighttime paving of SR 12. However, this lighting would be temporary and would only be used for the duration of construction activities. Construction lighting would be arranged and/or shielded to minimize glare to oncoming traffic. The Project would not require or create new permanent sources of substantial light or glare. Travel lanes would be restriped after paving is completed with reflective paint, since this is replacement in-kind it would not be a new source of light or glare. Project Feature AES-5 as described in Table 2-1 would minimize glare impacts to less than significant.

Avoidance and Minimization Measure for Trees

AMM AES-1: Replace Removed Trees. During construction, work would result in the removal of existing trees. Caltrans or its contractor, at the direction of Caltrans, would replace all removed trees within the Project limits to the extent feasible before operation of the Project. Landscape trees removed would be replanted where feasible. Irrigation damaged and/or removed as a result of the Project would require repair/replacement as part of the Project.

Agriculture and Forestry

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

The west end of the Project corridor is predominately rural in character with adjacent agricultural uses. Per Sonoma County Important Farmland map (Sonoma County 2017), within the Project area there are farmlands of statewide importance, farmland of local importance, as well as urban and built up land. East toward Santa Rosa, adjacent land use transitions to single-family residential and commercial use. The Project limits do not include areas that would qualify as forestland or timberland (California Department of Conservation 2016).

a, b) No Impact

The Project would not impact agricultural land and would not change land use within the Project limits. All Project work adjacent to agricultural land would occur within the Caltrans ROW.

c, d, e) No Impact

The proposed Project would not conflict with existing zoning for forest land or timberland or convert forest land to non-forest use land. The Project would not involve other changes in the existing environment that would result in conversion of forest or agricultural land. There would be no impact.

Air Quality

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

The Bay Area Air Quality Management District is the regulatory agency of the San Francisco Bay Area Air Basin (SFBAAB) in which the Project is located. The SFBAAB is considered to be in federal and state nonattainment for ozone and fine particulate matter 2.5 micrometers (PM_{2.5}) and in state nonattainment for particulate matter 10 micrometers (PM₁₀). It is in attainment or unclassified for other state and federal air quality standards.

a, d) No Impact

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 is exempt from the requirement to determine air quality conformity per 40 Code of Federal Regulations (CFR) 93.126 which covers pavement resurfacing and rehabilitation projects; therefore, an Air Quality Study is not required.

Construction air pollutants are expected to be short-term. Potential impacts to air quality, including violation of air quality standards, criteria pollutants, and exposure of sensitive receptors to pollutants, would not be significant based on the construction activities of the proposed Project. However, the Project would be required to comply with Caltrans Standard Specification 14-9, Air Quality, which requires compliance

with applicable air-pollution control rules, regulations, ordinances, and statutes. With implementation of Project Features AIR-1 through AIR-4, described in Table 2-1, impacts to air quality would be less than significant.

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

Caltrans has prepared a Natural Environment Study (NES; Caltrans 2019h) and a Biological Assessment as required by the United States Fish and Wildlife Service (USFWS) for California Tiger Salamander (Caltrans 2020) for the Project. The following text summarizes and analyzes the information presented in the NES and Biological Assessment.

The Biological Study Area (BSA) encompasses the entire extent of the Project limits and extends beyond Project limits to the immediately adjacent areas within Caltrans

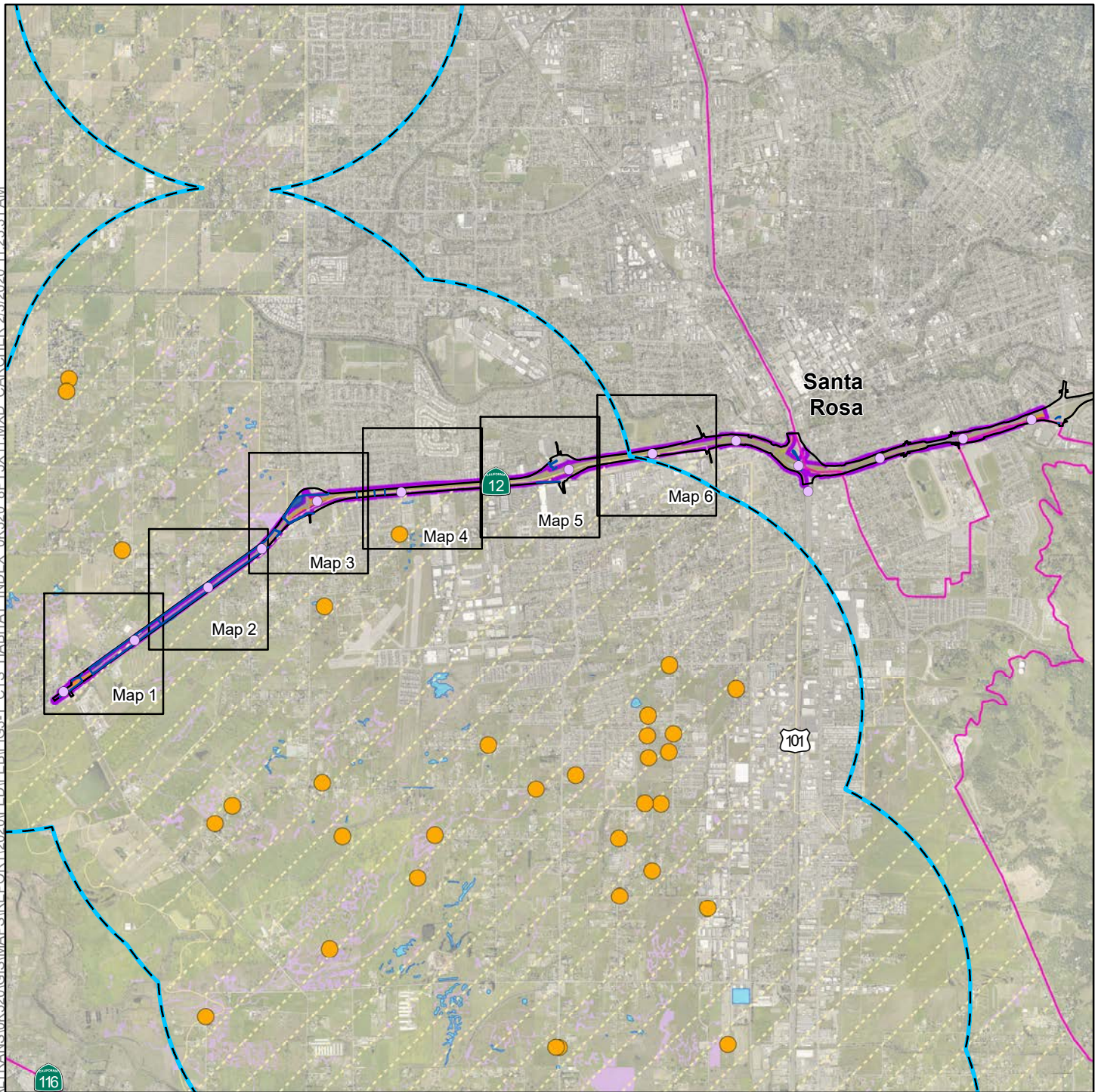
ROW. The 247-acre BSA was surveyed to evaluate the habitat and identify natural resources in the vicinity of the Project. The Project limits cover approximately 117 acres and encompass the areas that would be directly affected by construction activities, staging areas, and access routes. The BSA and Project limits are shown on aerial photographs in Figure 3-1.

Vegetation in the BSA includes a mix of open grassland, oak woodland, ruderal, and landscaped areas, with occasional willow thickets along drainage ditches and swales. Open grasslands are generally found along the western end of the BSA to the west of Stony Point Road and at the eastern end of the BSA around Farmers Lane. Oak woodland is found in scattered locations in the western part of the BSA between Llano Road and Stony Point Road. Areas within the BSA east of Stony Point Road, in the City of Santa Rosa, are characterized as planted landscaped areas. Planted landscape areas are highly variable and range from open grassy areas with scattered trees to densely wooded and shrubby areas with little understory. Willow thickets occur at scattered locations along drainages, ditches and swales in the western part of the BSA between Llano Road and Stony Point Road, with one small willow thicket also present at the east end of the BSA near Farmers Lane.

A regional list of special-status wildlife and plant species was compiled by querying databases from the USFWS (USFWS 2019), California Native Plant Society (CNPS 2019), California Natural Diversity Database (CNDDB; CDFW 2019), and National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS; NMFS 2020). Each special-status wildlife and plant species on these regional lists was evaluated to determine its potential to occur within the Project BSA and Project limits. Special-status species with at least some potential to occur within the BSA include special-status plants, migratory birds, and *Ambystoma californiense* (CTS), as well as CTS critical habitat.

Biological resources reconnaissance-level surveys were conducted on September 13, 19, and 26, 2019 within the Project BSA. The purpose of the surveys was to characterize the dominant habitat types, evaluate the potential presence for special-status plant and wildlife species, identify potential locations of aquatic resources, and recommend biological surveys to be completed prior to Project implementation.

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\04520\GIS\MAPS\REPORT\2020\FEDEFB\FIG3-1_CTS_HABITAT_INDEX_04520_8PT5X11.MXD CARCHEER 2/3/2020 11:25:31 AM



LEGEND

- Biological Study Area (247.2 acres)
- Project Limits (116.9 acres)
- Mile Post
- Staging Area
- Potential Waters of the U.S./State
- Hardscape (70.9 acres)
- Upland Habitat Not Suitable for CTS (44.8 acres)
- California Tiger Salamander (CTS)
- Critical Habitat (USFWS 2011)
- Santa Rosa Plain Conservation Strategy (SRPCS) Data (USFWS 2005)
- Wetlands - Breeding CTS (SRPCS)
- Wetlands - Potential Breeding (SRPCS)
- Potential for Presence of CTS and/or Listed Plants (SRPCS)(0.07 acre)
- SRPCS Study
- CTS Occurrences - Adults Only (SRPCS)
- 1.3 Miles from Breeding Wetlands
- Temporary Impacts to Suitable Upland CTS Habitat within the Project Area
- Within Critical Habitat (0.19 acre)
- Within 1.3 miles of Breeding but Outside of Critical Habitat (0.84 acre)

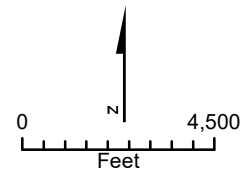
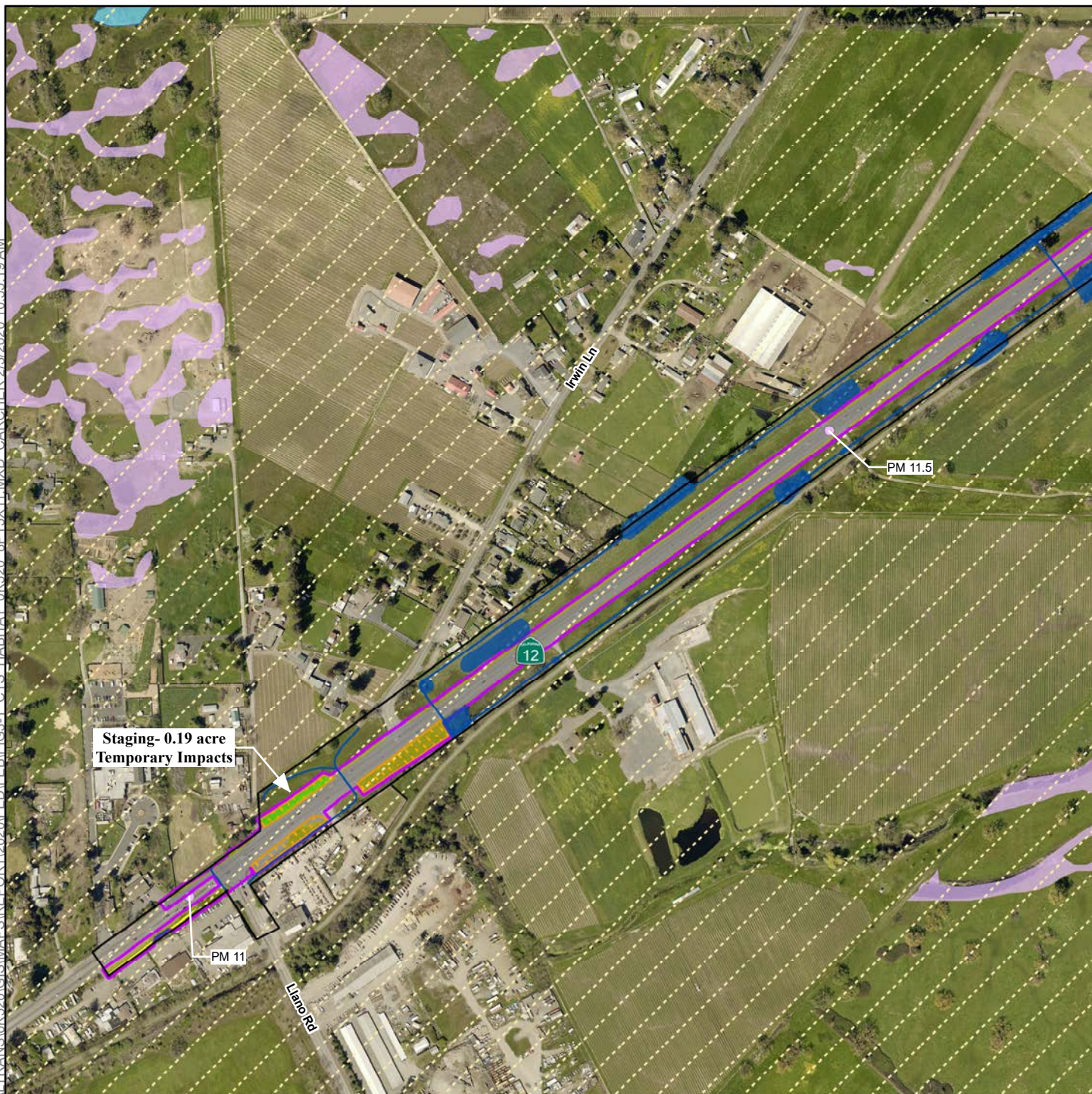


FIGURE 3-1
Index Map
California Tiger Salamander
Habitat in the Project Limits
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

Imagery Source:
Sonoma County Spring 2018

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\04520\GIS\MAPS\REPORT\2020\FEDEFIB\FIG3-1_CTS_HABITAT_04520_8PT5X11.MXD_CARCHER 2/3/2020 10:55:19 AM



LEGEND

- Biological Study Area (247.2 acres)
- Project Limits (116.9 acres)
- Mile Post
- Staging Area
- Potential Waters of the U.S./State
- Hardscape (70.9 acres)
- Upland Habitat Not Suitable for CTS (44.8 acres)
- California Tiger Salamander (CTS) Critical Habitat (USFWS 2011)
- Santa Rosa Plain Conservation Strategy (SRPCS) Data (USFWS 4/13/2016)
- Wetlands - Breeding CTS (SRPCS)
- Wetlands - Potential Breeding (SRPCS)
- Potential for Presence of CTS and/or Listed Plants (SRPCS)
- 1.3 Miles from Breeding Wetlands
- Temporary Impacts to Suitable Upland CTS Habitat within the Project Limits
- Within Critical Habitat (0.19 acre)

Imagery Source:
Sonoma County Spring 2018

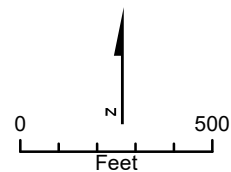
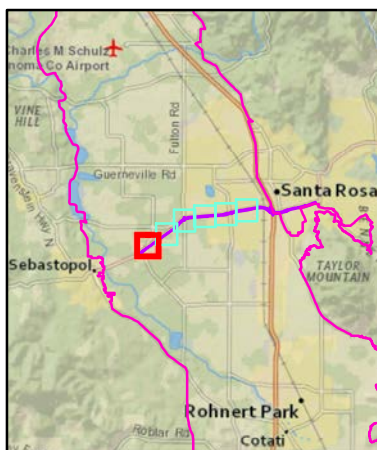
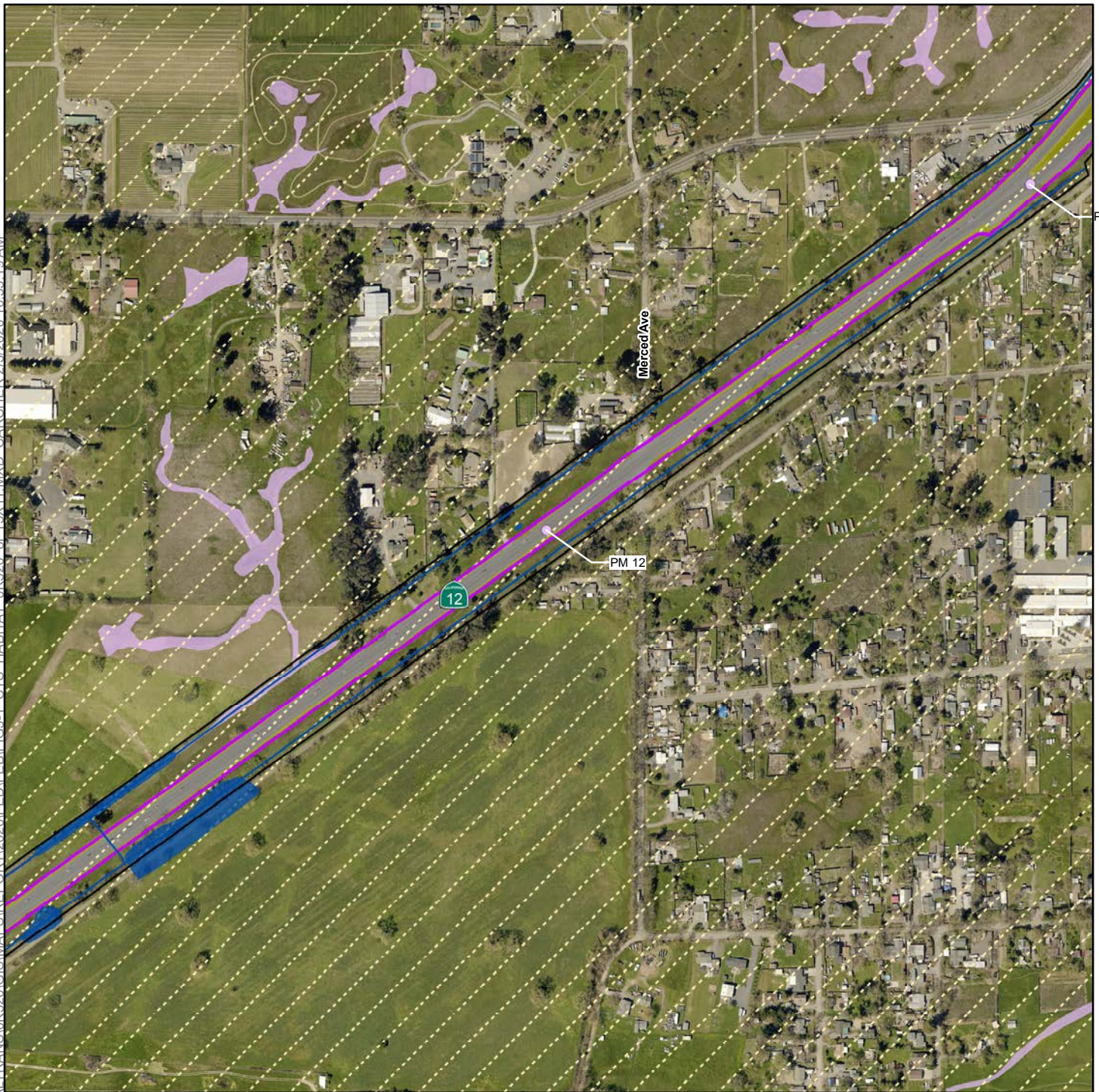


FIGURE 3-1
Map 1 of 6
California Tiger Salamander
Habitat and Aquatic Resources
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\04520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-1_CTS_HABITAT_04520_8PT5X11.MXD_CARCHER 2/3/2020 10:55:19 AM



PM 12.5

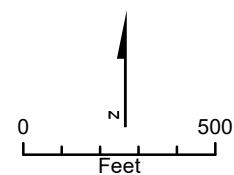
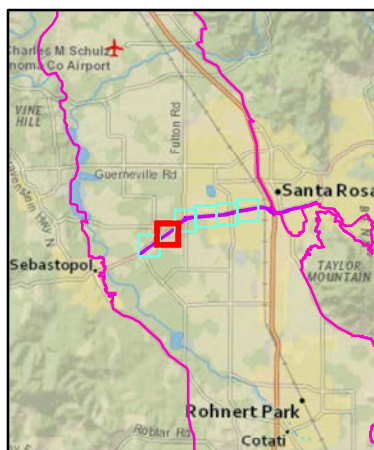
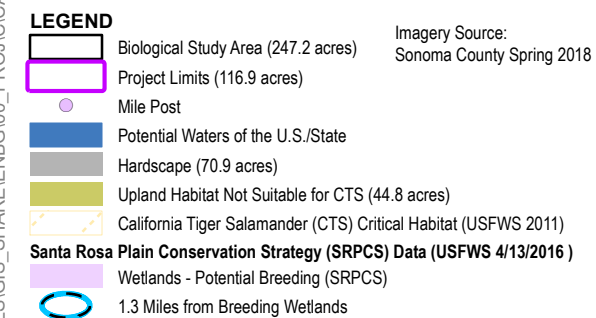
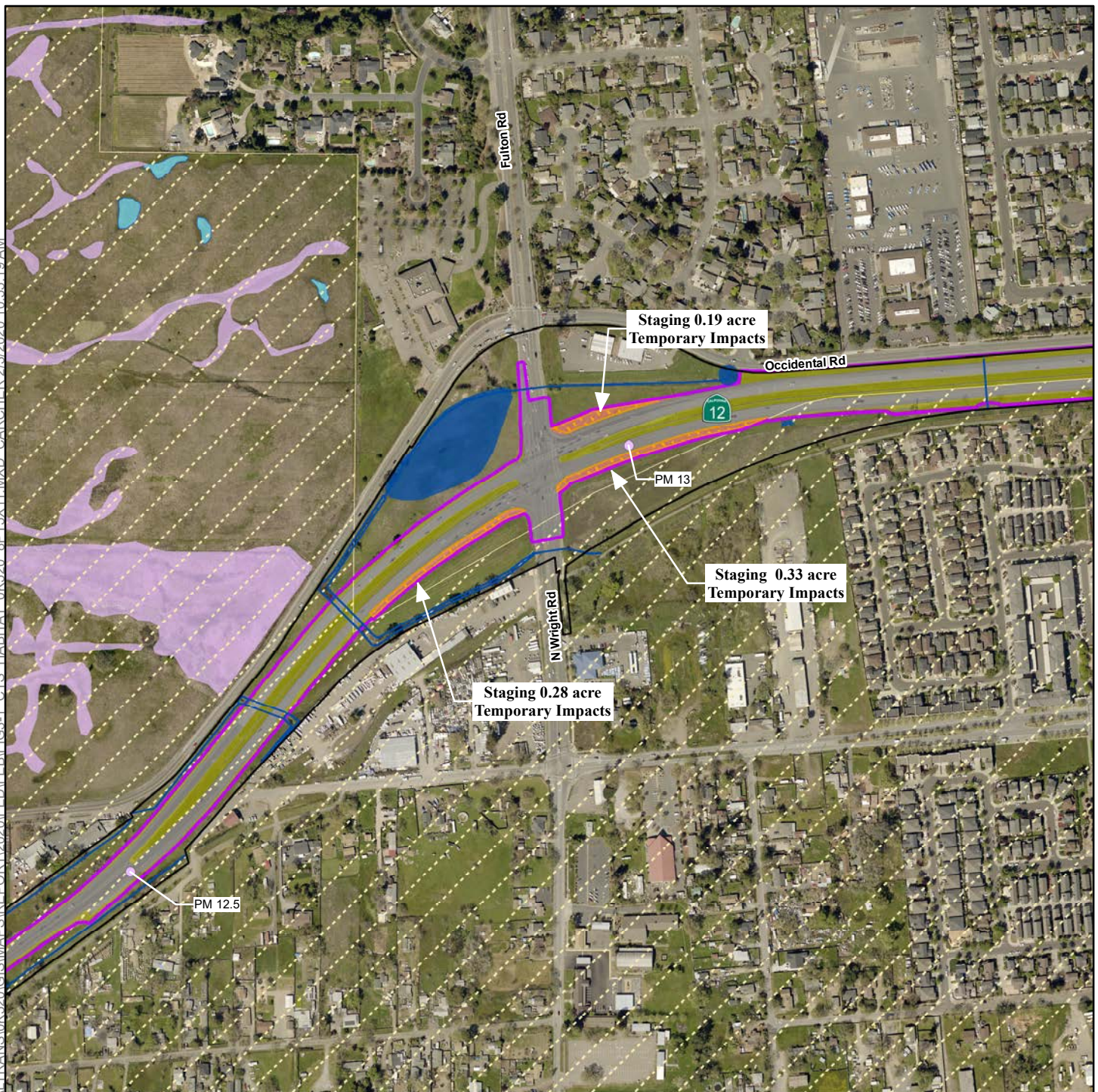


FIGURE 3-1
Map 2 of 6
California Tiger Salamander
Habitat and Aquatic Resources
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\04520\GIS\MAPS\REPORT\2020\FEDEFEB\FIG3-1_CTS_HABITAT_04520_8PT5X11.MXD_CARCHER 2/3/2020 10:55:19 AM



LEGEND

- Biological Study Area (247.2 acres)
- Project Limits (116.9 acres)
- Mile Post
- Staging Area
- Potential Waters of the U.S./State
- Hardscape (70.9 acres)
- Upland Habitat Not Suitable for CTS (44.8 acres)
- California Tiger Salamander (CTS) Critical Habitat (USFWS 2011)
- Santa Rosa Plain Conservation Strategy (SRPCS) Data (USFWS 4/13/2016)
- Wetlands - Breeding CTS (SRPCS)
- Wetlands - Potential Breeding (SRPCS)
- 1.3 Miles from Breeding Wetlands
- Temporary Impacts to Suitable Upland CTS Habitat within the Project Limits
- Within 1.3 miles of Breeding but Outside of Critical Habitat (0.84 acre)

Imagery Source:
Sonoma County Spring 2018

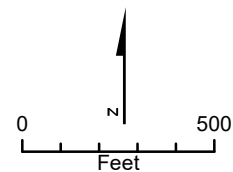
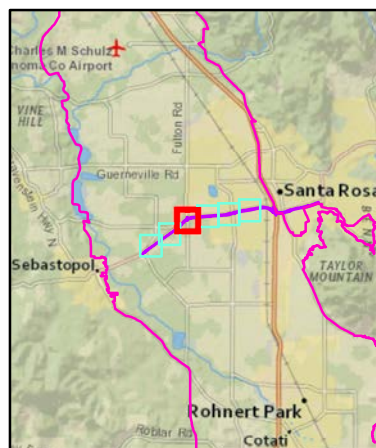













FIGURE 3-1
Map 3 of 6
California Tiger Salamander
Habitat and Aquatic Resources
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\04520\GIS\MAPS\REPORT\2020\FEDEFEB\FIG3-1_CTS_HABITAT_04520_8PT5X11.MXD_CARCHER 2/3/2020 10:55:19 AM



LEGEND

-  Biological Study Area (247.2 acres)
-  Project Limits (116.9 acres)
-  Mile Post
-  Potential Waters of the U.S./State
-  Hardscape (70.9 acres)
-  Upland Habitat Not Suitable for CTS (44.8 acres)
-  California Tiger Salamander (CTS) Critical Habitat (USFWS 2011)
-  Santa Rosa Plain Conservation Strategy (SRPCS) Data (USFWS 4/13/2016)
-  Wetlands - Breeding CTS (SRPCS)
-  1.3 Miles from Breeding Wetlands
-  CTS Occurrences - Adults Only (SRPCS)

Imagery Source:
Sonoma County Spring 2018

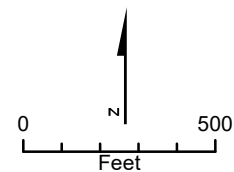
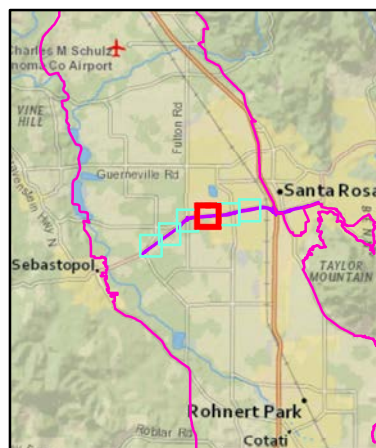










FIGURE 3-1
Map 4 of 6
California Tiger Salamander
Habitat and Aquatic Resources

State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\04520\GIS\MAPS\REPORT\2020\FEED\FEIG3-1_CTS_HABITAT_04520_8PT5X11.MXD CARHER 2/3/2020 10:55:19 AM



LEGEND

-  Biological Study Area (247.2 acres)
-  Project Limits (116.9 acres)
-  Mile Post
-  Potential Waters of the U.S./State
-  Hardscape (70.9 acres)
-  Upland Habitat Not Suitable for CTS (44.8 acres)
-  California Tiger Salamander (CTS) Critical Habitat (USFWS 2011)
-  1.3 Miles from Breeding Wetlands

Imagery Source:
Sonoma County Spring 2018

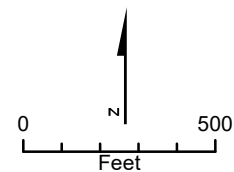
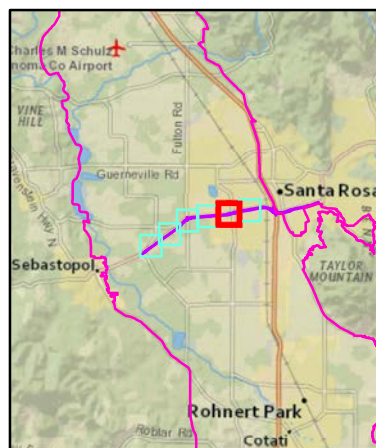









FIGURE 3-1
Map 5 of 6
California Tiger Salamander
Habitat and Aquatic Resources
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FEDEFB\FIG3-1_CTS_HABITAT_0K520_8PT5X11.MXD_CARCHER 2/3/2020 10:55:19 AM



LEGEND

-  Biological Study Area (247.2 acres)
 -  Project Limits (116.9 acres)
 -  Mile Post
 -  Hardscape (70.9 acres)
 -  Upland Habitat Not Suitable for CTS (44.8 acres)
 -  California Tiger Salamander (CTS) Critical Habitat (USFWS 2011)
 -  1.3 Miles from Breeding Wetlands
- Imagery Source:
Sonoma County Spring 2018

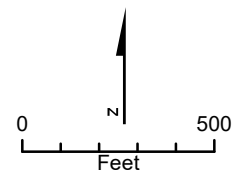
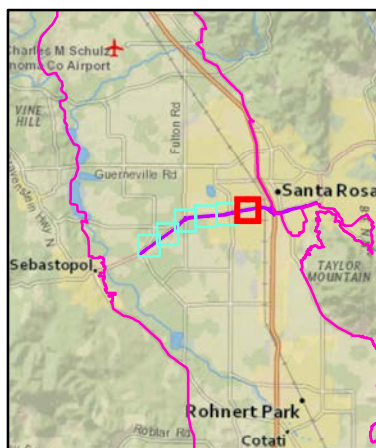


FIGURE 3-1
Map 6 of 6
California Tiger Salamander
Habitat and Aquatic Resources
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

a) Less than Significant with Mitigation

SPECIAL-STATUS PLANT SPECIES

According to the Project NES (Caltrans 2019h), 27 special-status plants have some potential to occur in the BSA. Six federally-listed endangered plants have some possibility of occurring in the BSA, including Sebastopol meadowfoam (*Limnanthes vicularans*), which has been previously reported from the Caltrans ROW along SR 12 between Llano Road and Merced Avenue (CDFW 2019). The other five federally-listed species, Clara Hunt's milk-vetch (*Astragalus claranus*), Sonoma sunshine (*Blennosperma bakeri*), Vine Hill clarkia (*Clarkia imbricata*), Burke's goldfields (*Lasthenia burkei*) and two-fork clover (*Trifolium amoenum*), have all been reported in the vicinity and are considered to have limited potential to occur in the BSA. Sebastopol meadowfoam, Sonoma sunshine, Vine Hill clarkia, and Burke's goldfields are also state listed endangered species and Clara Hunt's milkvetch is a state listed threatened species. Additional special-status plants with potential to occur in the BSA that are not federally or state listed include 11 species with a California rare plant rank of 1B (considered rare, threatened, or endangered), three species with a rare plant rank of 2B (rare, threatened, or endangered in California but more common elsewhere), and eight species with a rare plant rank 4 (a watch list) (CDFW 2019; Appendix E).

The SRPCS establishes specific guidelines and protocols for four federal and state listed plant species that are found on the Santa Rosa Plain, including Sonoma sunshine, Burke's goldfields, Sebastopol meadowfoam, and many-flowered navaretia (*Navarretia leucocephala* ssp. *plieantha*; USFWS 2005). These species typically occur in vernal pool habitats, but on occasion can be found in seasonally wet swales and constructed ditches. No vernal pools are present in the BSA and the Project limits have been designed to avoid impacts to ditches, swales, and other potentially seasonally wet areas.

Detailed floristic surveys have not been completed; however, the following special-status plants have blooming periods extending through September and were not observed during the reconnaissance surveys: bristly sedge (*Carex comosa*), congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*), and Gairdner's yampah (*Perideridia gairdneri* ssp. *gairdneri*). Detailed protocol-level floristic surveys would be conducted at the appropriate time of year prior to the start of Project construction.

The Project limits were established to avoid impacts to natural communities to the extent feasible and avoid all potentially seasonally wet areas identified in the BSA. Project impacts would occur immediately adjacent to the paved roadway in areas where the grassland habitat is regularly mowed. Overall the potential for special-status plants to occur in the Project limits is considered low. Potential impacts, including indirect impacts, on special-status plants and natural communities would be reduced with the implementation of Project Features BIO-1, BIO-4, BIO-5, BIO-7, BIO-9, BIO-10, BIO-11, BIO-12, and BIO-14, as described in Table 2-1. In the event that a special-status species is identified in or adjacent to the Project limits during the detailed protocol-level floristic surveys, the work/staging area would be adjusted to avoid affecting the species. Therefore, no Project impacts on special-status plant species are anticipated.

Avoidance and Minimization Measures for Rare Plants

In addition to the Project Features referenced above, the following AMM would also avoid Project impacts to listed plants:

AMM BIO-1: Pre-construction Surveys for Rare Plants. Detailed protocol-level floristic surveys for special-status plant species that have at least some potential to occur would be conducted at the appropriate time of year prior to the start of the Project for all locations of suitable habitat within the Project limits. If a special-status plant is detected, the Project limits boundary would be adjusted to avoid impacting the species.

SPECIAL-STATUS WILDLIFE SPECIES

The NES identified special-status wildlife species that have the potential or are known to occur in the BSA, which are discussed in the following sections.

California Tiger Salamander (*Ambystoma californiense*)

CTS is a federally endangered and state threatened species that occurs in central and northern California where temporary ponded environments (e.g., vernal pools or human-made ponds providing water for at least three months) are surrounded by open upland grasslands that support small mammal burrows. Portions of the BSA occur within the boundaries of the SRPCS, which provides a protocol for managing potential impacts on threatened and endangered species associated with the Santa Rosa Plain, including CTS. Additionally, portions of the BSA occur within the borders of designated critical habitat for Sonoma County CTS (USFWS 2011) (see Figure 3-1).

The NES concludes that suitable dispersal and upland CTS habitat is present in portions of the BSA and Project limits. Aquatic habitat for CTS is absent from the Project limits, but numerous breeding ponds and CNDDB occurrences occur within dispersal distance (1.3 miles) of the western section of the Project limits (CDFW 2019, USFWS 2005). CTS may occasionally disperse into or through portions of the BSA from nearby breeding sites.

Annual grassland and ruderal habitats in the BSA west of the Fulton Road intersection may provide suitable refugial or dispersal habitat for CTS. A small number of pocket gopher burrows was observed in grassland habitat in the staging areas at the Fulton Road and Llano Road intersection, and in the road margins of SR 12. Staging areas located south of SR 12 at Fulton Road are separated from the adjacent Wright Conservation Area, which is known to support breeding CTS (CDFW 2019), by Occidental Road and SR 12. While these roads present a significant dispersal barrier, a culvert beneath these roads provides a possibility of safe highway crossing for some CTS. While some CTS may be able to cross at this culvert, the potential for CTS to occur in the staging areas south of SR 12 is greatly reduced. Construction equipment and materials would also be staged outside the paved areas and within the ROW east of the Fulton Road intersection. West of the Fulton Road intersection, staging would be at the locations shown on Figure 2-1.

The majority of the BSA east of the Fulton Road intersection is mapped by the SRPCS as developed or blank and is bordered by urban and industrial development to the north and south. In addition, soundwalls and dense urban development constitute significant barriers to movement between the BSA and CTS populations along the majority of this corridor. Therefore, CTS are considered unlikely to occur east of Fulton Road in the BSA.

The proposed Project would potentially have direct and indirect impacts on CTS and its habitat. The number of CTS that could potentially occur in the Project limits is low due to the developed nature of the Project surroundings and the timing of Project activities during the dry season, when CTS are not expected to move outside of their below-ground refugia. However, individuals could potentially be present in burrows within the Project limits and recently metamorphosed CTS seeking upland retreats could also disperse into the Project limits from nearby breeding sites during the summer months as aquatic habitats dry out. Construction activities associated with the proposed Project may therefore result in the direct mortality of CTS. Additionally, the Project would result in temporary impacts to CTS upland habitat within the Santa

Rosa Plain Unit (Unit 1) of Sonoma County CTS critical habitat (Table 3-2 and Figure 3-1). However, the primary constituent elements required for CTS occupancy are largely absent from the Project limits, and the proposed Project would not adversely modify critical habitat. Project features and AMMs would reduce the potential for direct and indirect impacts on CTS and its habitat.

Table 3-2 California Tiger Salamander Project Impacts

Upland Habitat Type	Project Activities	Permanent Direct Impact (acre)	Temporary Direct Impact (acres)
Within 1.3 miles of breeding pools or 500 feet of adult occurrence and not mapped by SRPCS but within CTS critical habitat.	Staging area at Llano Road	0	0.19
Within 1.3 miles of breeding pools or 500 feet of adult occurrence, but not mapped by SRPCS and not within CTS critical habitat	Staging areas at Fulton Road and road margins of SR 12	0	0.84
Total		0	1.03

Note:

SRPCS = Santa Rosa Plain Conservation Strategy (USFWS 2011)

AVOIDANCE AND MINIMIZATION MEASURES FOR CALIFORNIA TIGER SALAMANDER

Potential Project impacts to CTS would be avoided and minimized through implementation of Project Features BIO-1 through BIO-5, BIO-7 through BIO-10, and BIO-12 through BIO-15 as described in Table 2-1. Ground or vegetation disturbing construction activities would be limited to between April 15 and October 15 in suitable CTS habitat. This work window would be implemented for activities west of the Fulton Road intersection, which is approximately PM 13.1. This work window does not apply to activities within the edge of pavement or activities east of the Fulton Road intersection at approximately PM 13.1. Construction activities and wildlife exclusion fencing would temporarily preclude the use of staging areas by CTS for dispersal and cover. Construction equipment and materials would be staged outside the paved areas and within the ROW east of the Fulton Road intersection. West of the Fulton Road intersection, staging will be at the locations shown on Figure 2-1.

In addition to the Project Features referenced above, the following AMM would also avoid Project impacts to CTS:

AMM BIO-2: California Tiger Salamander Capture and Relocation Plan. At least 30 days prior to construction, an agency-approved biologist would submit a CTS Capture and Relocation Plan to the USFWS describing CTS relocation methods and locations.

MITIGATION MEASURE FOR CALIFORNIA TIGER SALAMANDER

Within the BSA, the Project activities would be limited to existing hardscape, occur in areas unsuitable for or inaccessible to CTS, and/or are temporary in nature and meet SRPCS criteria for avoidance and minimization of impacts to CTS. Mitigation for impacts to potential CTS upland habitat at the 0.19-acre staging area north of SR 12 at Llano Road will be mitigated at a ratio of 2:1, per the SRPCS.

Mitigation Measure BIO-1: California Tiger Salamander

Temporary impacts to CTS habitat at the 0.19-acre staging area located on the north side of SR 12 near the Llano Road intersection (near PM 11) will be mitigated at a ratio of 2:1, in accordance with the SRPCS, by the purchase of 0.38 acre of CTS upland habitat credits from a USFWS- and CDFW-approved mitigation bank prior to Project construction

Migratory, Sensitive, and Federal- and State-Listed Birds

Migratory, sensitive, and federal- and state-listed birds have the potential to occur within the BSA. These species are protected by both the Migratory Bird Treaty Act and the California Fish and Game Code, which prohibit the take of non-game migratory birds, raptors, and their nests. Suitable nesting habitat for white-tailed kite (*Elanus leucurus*, California fully protected [FP]), loggerhead shrike (*Lanius ludovicianus*, California species of special concern [SSC]), and grasshopper sparrow (*Ammodramus savannarum*, SSC), occurs within or adjacent to the BSA. Other migratory and/or protected bird species such as American peregrine falcon (*Falco peregrinus anatum*, FP), golden eagle (*Aquila chrysaetos*, FP), short-eared owl (*Asio flammeus*, SSC), and tricolored blackbird (*Agelaius tricolor*, state listed as threatened [ST]) have a low probability of foraging within the Project limits and are not expected to nest in or near the BSA. No signs of burrowing owl (*Athene cunicularia*) were found during reconnaissance surveys, nor were any suitable California ground squirrel burrows observed.

The Project could result in temporary short-term impacts to avian foraging and nesting habitat, as well as disturbance to individual birds from construction noise. The Project would avoid impacts to active bird nests through the implementation of Project Feature BIO-6, as described in Table 2-1. The survey would identify active

bird nests in the BSA prior to beginning construction during the nesting season (February 1 to September 30). If active nesting birds are located, an appropriate disturbance-free buffer as determined by the agency-approved biologist would be maintained until nesting is complete. Impacts to nesting birds and raptors would be less than significant.

b) No Impact

The Project would avoid impacts to sensitive natural communities. Two sensitive natural communities, valley oak woodland (*Quercus lobata* woodland alliance) and red willow thickets (*Salix laevigata* woodland alliance), occur within the BSA. Both natural communities have been assigned a global and state rank of 3, indicating that they are considered vulnerable and have a moderate risk of extinction due to a restricted range, scarcity of stands or occurrences, recent and widespread declines, or other threats.

Within the BSA, valley oak woodland stands range from open savannas with a few scattered trees to dense stands of small to medium-sized trees. This community type occurs within the BSA at scattered locations along the western side of the Project limits between Llano Road and Stony Point Road.

Red willow thickets occur at one location along the northwest side of SR 12 near Irwin Road. The trees occur along an excavated drainage ditch/swale and may have been planted as a wind row for the adjacent agricultural fields. Trees in this area are all large mature individuals. Willow thickets may also be regulated as riparian habitat by CDFW under the California Fish and Game Code.

Several trees including valley oak, coast live oak, western sycamore, and redwood occur throughout the BSA in urban landscaped areas. While these landscaped areas contain the native species associated with natural communities, they were not considered to be natural communities due to the urban setting and environment.

Although small areas of sensitive natural communities occur within the BSA, these areas would be avoided. By avoiding these areas, the Project would have no impact to sensitive natural communities.

c) No Impact

The Project would avoid impacts to aquatic resources. No natural rivers, streams, marshes, or vernal pools occur within the BSA. Water features identified in the BSA

include excavated drainage ditches and swales that have been constructed to convey roadside runoff and stormwater. Preliminary surveys identified a few areas that were considered potential seasonal wetlands as well as areas with willow trees or shrubs adjacent to the excavated drainages.

The Project has been designed to avoid all potential waters of the U.S. or state including ditches, swales, potential seasonal wetlands, and willow scrub habitats that were identified in the BSA, as shown in Figure 3-1. The Project would have no impact to waters of the U.S., including wetlands, or waters of the state.

d) No Impact

The Project limits do not include aquatic habitat and would have no effect to fish passage. The existing SR 12 represents a barrier to wildlife movement and a source of potential mortality to migrating CTS (USFWS 2004). The Project does not propose to widen SR 12 nor facilitate an increase in traffic; therefore, the Project would not result in any new barriers to wildlife movement, additional mortality or injury to CTS from SR 12, or otherwise cause additional interference with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. There would be no impact.

e) No Impact

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

f) No Impact

The Project overlaps with the boundaries of the SRPCS and is compliant with SRPCS guidance for protection of species covered by the SRPCS. Survey methodology and impact assessment guidelines within the SRPCS informed the analysis of potential Project impacts and mitigation. The proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There would be no impact.

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

Caltrans prepared a memorandum on cultural compliance for the Project titled *Office of Cultural Resource Studies Section 106 review for CAP M Pavement Improvement on State Route 12, Sonoma County* (Caltrans 2019c). The studies for this undertaking were carried out in a manner consistent with Caltrans regulatory responsibilities under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans regarding compliance with Section 106 of the NHPA, as it pertains to the Administration of the Federal Aid Highway Program in California* (Programmatic Agreement).

a, b, c) No Impact

The Project would not impact cultural resources. Caltrans OCRS assessed the Project in accordance with Caltrans' regulatory responsibilities under the January 2014 Programmatic Agreement and the January 2015 *Memorandum of Understanding Between the Caltrans and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92*. The Caltrans OCRS review included a detailed search of records, maps, plans, and digital files found in Caltrans' Cultural Resources Database. The background identified no historic properties/historical resources within the area of potential effects (APE).

This assessment determined that the proposed Project has no potential to affect cultural resources and is exempt from further review pursuant to the Programmatic Agreement Stipulation VII, “Screened Undertakings.” The undertaking has been screened and determined to be exempt under Class 1 (Pavement reconstruction, resurfacing, shoulder backing, or placement of seal coats), Class 11 (Modification of existing features, such as slopes, ditches, curbs, sidewalks, driveways, dikes, or headwalls, within or adjacent to the right of way), and Class 13 (Addition or replacement of devices, such as glare screens, median barriers, fencing, guardrails, safety barriers, energy attenuators, guide posts, markers, safety cables, ladders, lighting, hoists, or signs) of Attachment 2, “Screened Undertakings” in the Programmatic Agreement.

Construction activities that involve excavation and other earth-moving activities have the potential to encounter unknown archeological resources. Implementation of Project Features CUL-1 and CUL-2, as described in Table 2-1, would reduce potential impacts to undiscovered cultural resources associated with ground-disturbing activities during construction.

Based on the above evaluation, Caltrans has determined that the Project has no potential to affect historical resources for the purposes of CEQA. Compliance with Section 106 via the Programmatic Agreement and California Public Resources Code Section 5024 is complete. Therefore, the Project would have no impact on cultural resources.

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 proposed Project would not increase roadway capacity or otherwise alter long-term circulation that could affect energy use. Energy would be consumed during construction, but this consumption would not be wasteful, inefficient, or unnecessary. During construction, implementation of Project Features AIR-2, AIR-3, and GHG-2, described in Table 2-1, would increase 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/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

The Project is located within the California Coast Ranges geomorphic province. This province is a northwest-trending band of folded and faulted mountains that roughly parallel the San Andreas fault zone. In general, the Coast Ranges consist of complexly folded Mesozoic and Cenozoic sedimentary, metamorphic, and volcanic

rock. The eastern end of the Project intersects the Rodgers Creek Fault, a continuously active fault zone that extends approximately 30 miles to the northern margin of San Pablo Bay (California Division of Mines and Geology 1982).

a(i) No Impact

The Project does not directly or indirectly increase the potential for surface rupture or expose the public to increased risk of loss, injury, or death. There would be no impact.

a(ii) No Impact

The Project does not directly or indirectly increase the potential for strong ground shaking or expose the public to increased risk of loss, injury, or death. There would be no impact.

a(iii) No Impact

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.

a(iv), c, d, e, f) No Impact

The proposed Project would not affect geologic or native soil conditions and would not disturb the native subsurface. There are no known sensitive geologic or paleontological resources in the Project limits. There would be no additional impacts to the public from earthquakes, landslides, liquefaction, or other geologic hazards. The Project is not located on a geologic unit or soil that is unstable.

There are no septic tanks or alternative waste water delivery systems in the Project limits. Project work would occur in artificial fill along the Project corridor, with a maximum excavation depth of 1.25 feet. The Project does not have the potential to destroy unique paleontological features. There would be no impact.

b) Less than Significant Impact

Drainage improvements and curb ramp work would disturb soils, which could result in erosion. However, soil erosion would be minimized through implementation of standard Caltrans Project Features HYD-1 through HYD-4, as described in Table 2-1.

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

Caltrans investigated potential impacts to greenhouse gas (GHG) emissions from the proposed Project and prepared the *Construction Greenhouse Gas Emissions Analysis Memorandum* (Caltrans 2019d). 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 construction site, and traffic delays from construction. The emissions would be produced at different levels throughout the Project depending on the activities involved at various phases of construction.

The analysis was focused on vehicle-emitted GHGs. Carbon dioxide (CO₂) is the single most important GHG pollutant due to its abundance when compared with other vehicle-emitted GHGs, including methane, nitrous oxide, hydrofluorocarbon, and black carbon. The frequency and occurrence of vehicle-emitted GHGs can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as changes in materials and longer pavement life, the GHG emissions produced during construction would be offset to some degree by longer intervals between maintenance and rehabilitation activities.

The Project's construction-related GHG emissions were calculated using the Road Construction Emissions Model, version 9.0.0, provided by the Sacramento Metropolitan Air Quality Management District. The estimated total amount of CO₂ produced during a 10-month construction timeframe is 596.93 tons.

Because construction activities are short-term, the GHG emissions resulting from construction activities would not result in long-term impact on the environment. Frequency and occurrence of GHG emissions would be reduced through implementation of Project Features GHG-1 and GHG-2 as described in Table 2-1.

The Project would not increase the vehicular capacity of SR 1. Because technological advances improve automobile efficiencies, it is anticipated that the operational emissions within the Project limits would decrease over time. As such, it is not foreseeable for the Project to contribute to an increase in GHG emissions. With implementation of the above mentioned Project Features the Project would have a less than significant impact.

b) No Impact

The proposed Project would not contribute to a long-term increase in GHG emissions. Therefore, it not in conflict with reducing long term emissions. There would be no impact.

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

a, b) No Impact

The Project would not create a significant hazard to the public related to hazardous materials. Caltrans Standard Specifications BMPs would be implemented to prevent spills or leaks from construction equipment and from storage of fuels, lubricants, and solvents. All aspects of the Project associated with removal, storage, transportation, and disposal of hazardous material would be done in accordance with the appropriate

California Health and Safety Code. Handling of hazardous materials would comply with Caltrans Standard Specification 14-11, Hazardous Waste and Contamination, which outlines handling, storage, and disposal of hazardous waste. There are no anticipated impacts.

c) No Impact

The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Three schools are present within a quarter mile of the Project: Montgomery High School (0.15 mile), Wright Charter School (0.20 mile), and Luther Burbank Elementary School (0.25 mile). There would be no impact.

d) No Impact

Screening of environmental regulatory databases (the State Water Resources Control Board's GeoTracker and California Department of Toxic Substances Control's EnviroStor) revealed no known hazardous materials or hazardous waste sites within approximately 500 feet that could negatively affect the Project soil and groundwater. The proposed drainage improvement might disturb roadside shallow soil that likely contains elevated levels of aerially deposited lead from past vehicle emissions. However, the Project is not expected to generate surplus excavated material requiring off-site disposal and soil testing is not expected to be necessary. If plans change and off-site disposal of soils is required, additional soils testing and characterization may be necessary during the design phase. Compliance with Caltrans Standard Specifications 14-11, Hazardous Waste and Contamination, would be required and therefore, result in the adequate handling, storing, and disposing of hazardous waste. Additionally, Project Features HAZ-1 and HAZ-2, as described in Table 2-1, would be implemented. There would be no impact.

e) No Impact

There are no airports or airstrips in the Project vicinity. The closest airport is the Sonoma County airport located approximately 6.0 miles from the Project limits. There would be no impact.

f) Less than Significant Impact

The proposed Project would minimally interfere with any emergency response or evacuation plan. Potential delays to traffic along SR 12 would result from flagger-

controlled one-way traffic in effect during construction activities. A TMP (see Project Feature TRA-1 in Table 2-1) would be developed during the design phase that would identify traffic delays and 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 response or evacuation in the event of an emergency. The impact would be less than significant.

g) No Impact

The Project does not have permanent features that would expose people or structures to risk of loss, injury, or death involving wildland fires. There would be no impact.

Hydrology/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 a hydrology and water quality technical studies for the proposed Project. This section summarizes the findings of the Hydraulics Study (Caltrans 2019e) and Water Quality Study (Caltrans 2019f).

The Project is located within the jurisdiction of the North Coast RWQCB, which is responsible for implementation and enforcement of state and federal laws and regulations concerning water quality.

The Project is within the Russian River Hydrologic Unit and Middle Russian River Hydrologic Area. The Project is within the Mark West Creek Watershed and the Lower Laguna de Santa Rosa Sub-watershed.

The Project limits have a Mediterranean climate with cool, wet winters and warm, dry summers with rainy season from October 15 to April 15. January is the coolest month, with an average maximum of 59.0 degrees Fahrenheit (°F) and an average minimum of 39.2°F. September is the warmest month with an average maximum of 83.2°F and an average minimum of 51.5°F. Annual precipitation averaged 33.96 inches of rainfall (Caltrans 2019f).

Stormwater runoff from the Project limits drains into the municipal separate storm sewer system that eventually drains into Santa Rosa Creek and Laguna de Santa Rosa and their tributaries. These waterbodies are on the Clean Water Act Section 303 (d) list for various pollutants, including sedimentation/siltation. These waterbodies have no U.S. Environmental Protection Agency approved Total Maximum Daily Load (Caltrans 2019f).

The Project is on the Santa Rosa Plain, with native soils consisting mainly of fine sands silt and silty clay or clay. All Project activities would occur entirely on disturbed ground or artificial fill.

a) Less than Significant Impact

The proposed Project would not violate water quality standards or waste discharge requirements. The Project is expected to have a total disturbed soil area of 3.87 acres, which includes work on approach slabs, minor cement concrete for vegetation control on MGS, edge treatment on both side shoulders, and drainage improvements. The Project limits have an existing impervious surface area of 33.64 acres. Following completion of the Project, the Project limits would have an impervious surface area of 34.98 acres. The net new impervious surface area would be 1.34 acres (Caltrans 2019f).

Increased sediment discharge from approximately 3.87 acres of disturbed soil area and increased runoff from approximately 1.34 acres of net new impervious surface from the MBGR replacement would be avoided through implementation of Project Features HYD-1 through HYD-4, as described in Table 2-1. In addition, the release of fluids, concrete material, construction debris, sediment, and litter, which could change localized pH and turbidity in receiving waters during construction, would be

avoided through implementation of Project Feature HYD-2. The Project would not violate water quality standards or waste discharge requirements. The Project would have less than significant impacts.

b) No Impact

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

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

The Project would not create runoff that would exceed existing storm drain systems or create substantial additional sources of polluted runoff. The Project would also not impede or redirect flood flows. There would be no impact.

c(iii) Less than Significant Impact

The proposed Project would not substantially alter the existing drainage pattern of the site. With implementation of Project Features HYD-1 through HYD-4 (Table 2-1), the Project would not result in substantial erosion or siltation. The proposed Project would result in a minimal increase of surface runoff due to the new impervious surface. The increase in the surface runoff would be accommodated with the existing stormwater facilities. The Project would have less than significant impacts.

d) No Impact

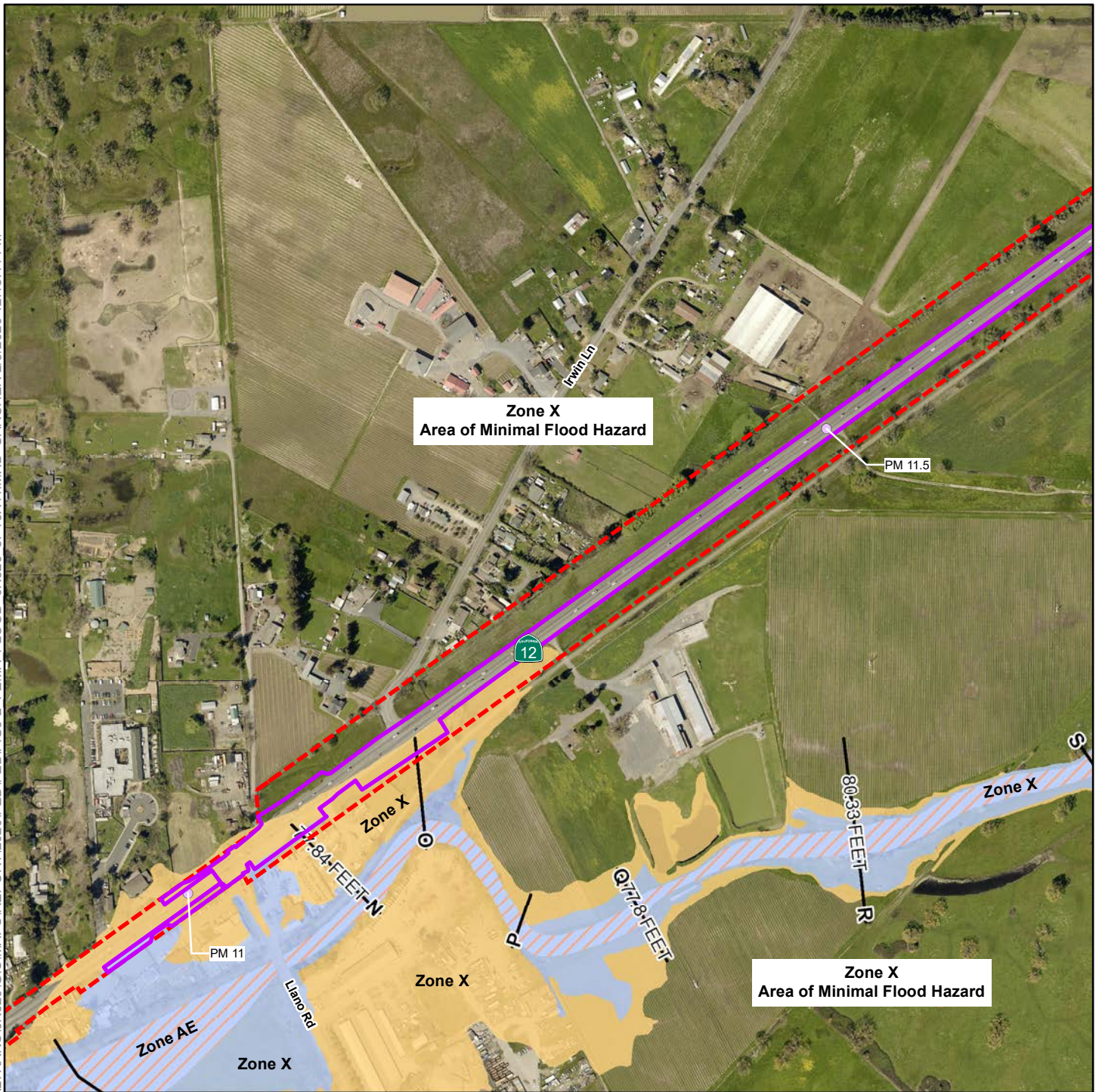
No floodplain impacts from the proposed Project are expected. According to the Federal Emergency Management Agency Flood Insurance Rates Maps (numbers 06097C0716F, 06097C0717F, 06097C0736F, and 06097C0737F) a very small area of SR 12 at the western end of the Project is located in a patterned Zone X floodplain (Figure 3-2). A patterned Zone X floodplain indicates areas inundated in floods between a 1% (100-year flood) to 0.2% (500-year flood) chance of occurring in any given year. The vast majority of the Project is located within Zone X, which indicates flood hazard areas with a 0.2% chance of occurring in any given year (500-year flood).

Under the proposed Project, this area within the 100-year flood would continue to operate as a transportation system, and thus, the Project would not have the potential of releasing pollutants during a 100-year flood. The proposed Project is not in flood hazard, seiche, or tsunami zones. There would be no impact.

e) No Impact

With the implementation of Project Features HYD-1 through HYD-4, as described in Table 2-1, 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.

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-2_FEMA_FLOOD_0K520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



LEGEND

- Project Limits
- Mile Post
- Right of Way
- Cross-Sections

FEMA National Flood Hazard Zone Type

- A - 1% Annual Chance Flood Hazard
- AE - 1% Annual Chance Flood Hazard
- AE - Regulatory Floodway
- X - 0.2% Annual Chance Flood Hazard
- X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

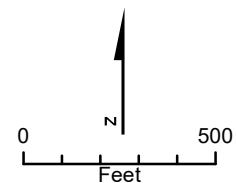
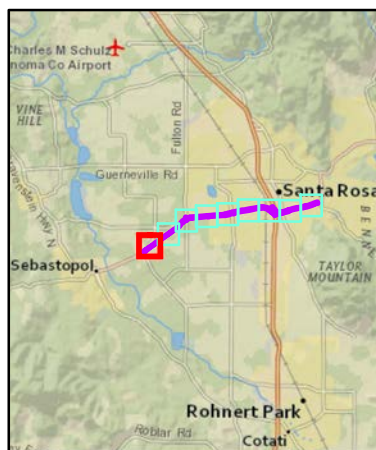
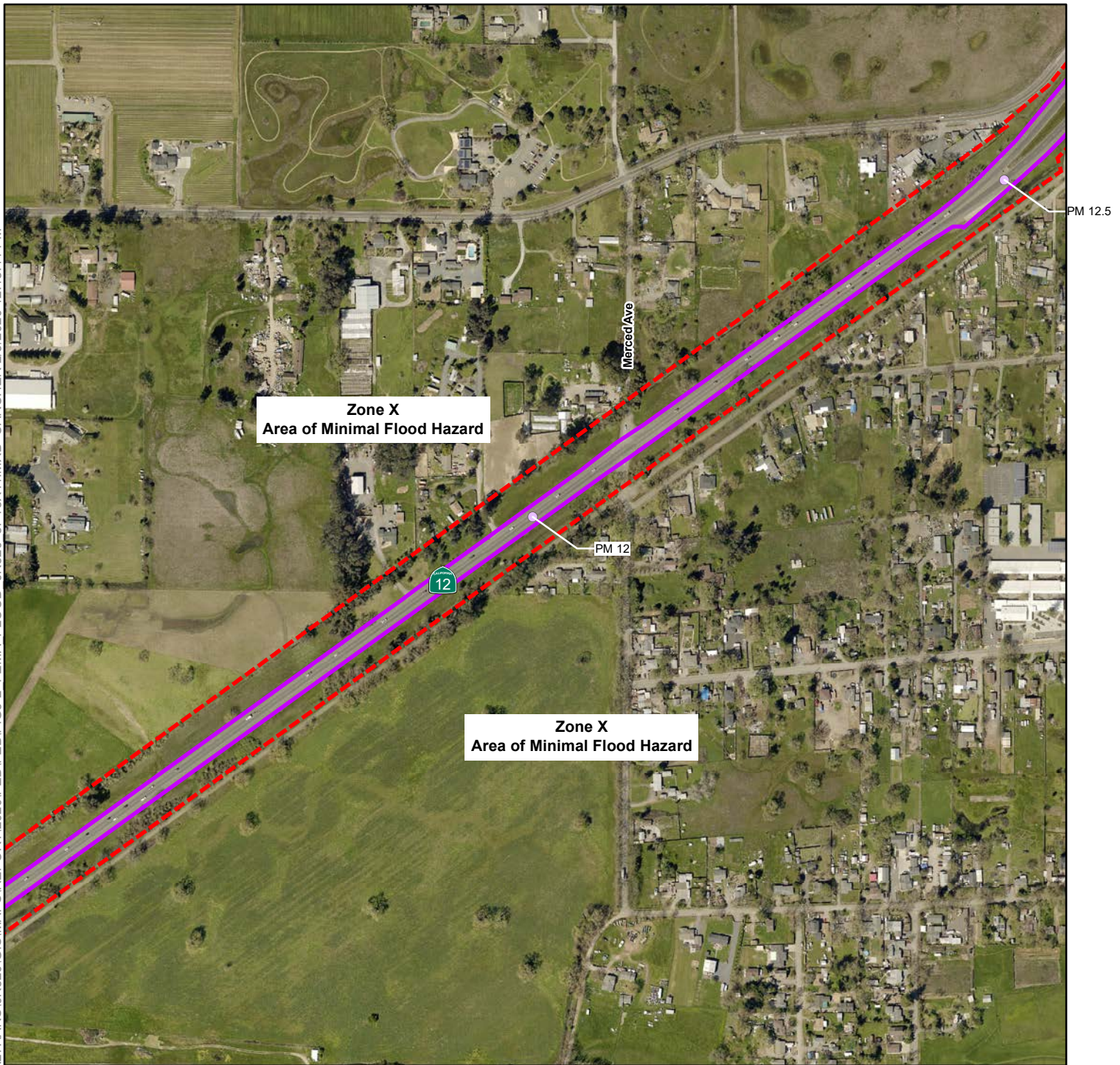


FIGURE 3-2
Map 1 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJECT\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-2_FEMA_FLOOD_0K520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



LEGEND

- Project Limits
- Mile Post
- Right of Way
- Cross-Sections

FEMA National Flood Hazard Zone Type

- A - 1% Annual Chance Flood Hazard
- AE - 1% Annual Chance Flood Hazard
- AE - Regulatory Floodway
- X - 0.2% Annual Chance Flood Hazard
- X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

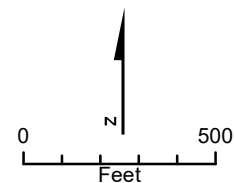
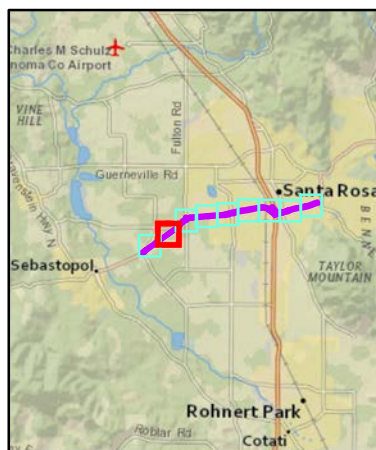
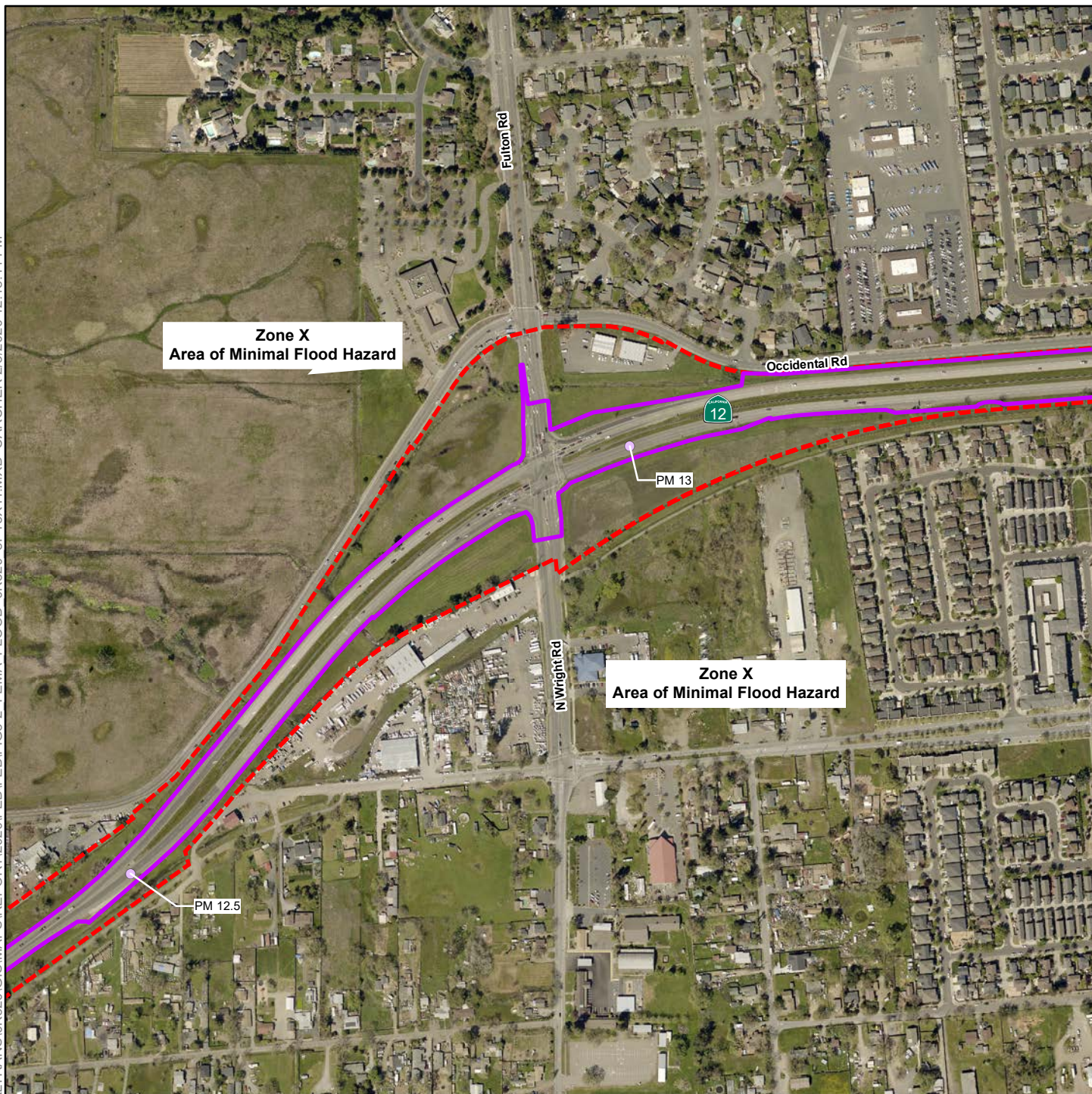


FIGURE 3-2
Map 2 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California



LEGEND

- Project Limits
- Mile Post
- Right of Way
- Cross-Sections

FEMA National Flood Hazard Zone Type

- A - 1% Annual Chance Flood Hazard
- AE - 1% Annual Chance Flood Hazard
- AE - Regulatory Floodway
- X - 0.2% Annual Chance Flood Hazard
- X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
 Imagery from Sonoma County 2018

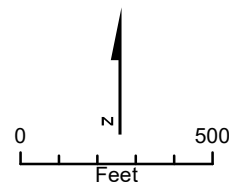
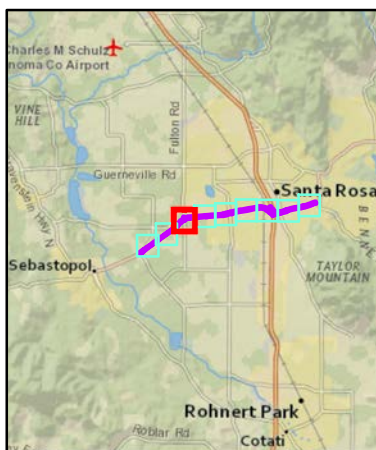






FIGURE 3-2
Map 3 of 9
FEMA National Flood Hazard
 State Route 12 Capital Preventive
 Maintenance Project
 EA 04-0K520, SON-12-11.0/17.4
 Sonoma County, California






\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJ\GIS\CALTRANS\04520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-2_FEMA_FLOOD_04520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



LEGEND

-  Project Limits
-  Mile Post
-  Right of Way
-  Cross-Sections

FEMA National Flood Hazard Zone Type

-  A - 1% Annual Chance Flood Hazard
-  AE - 1% Annual Chance Flood Hazard
-  AE - Regulatory Floodway
-  X - 0.2% Annual Chance Flood Hazard
-  X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

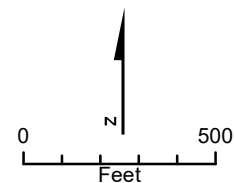
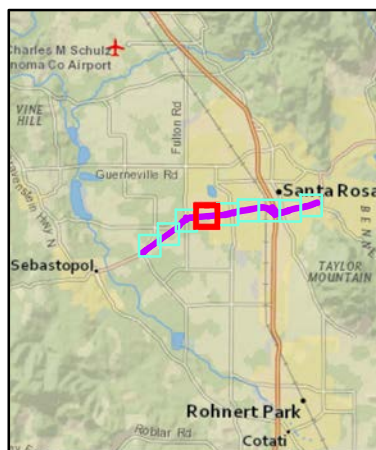
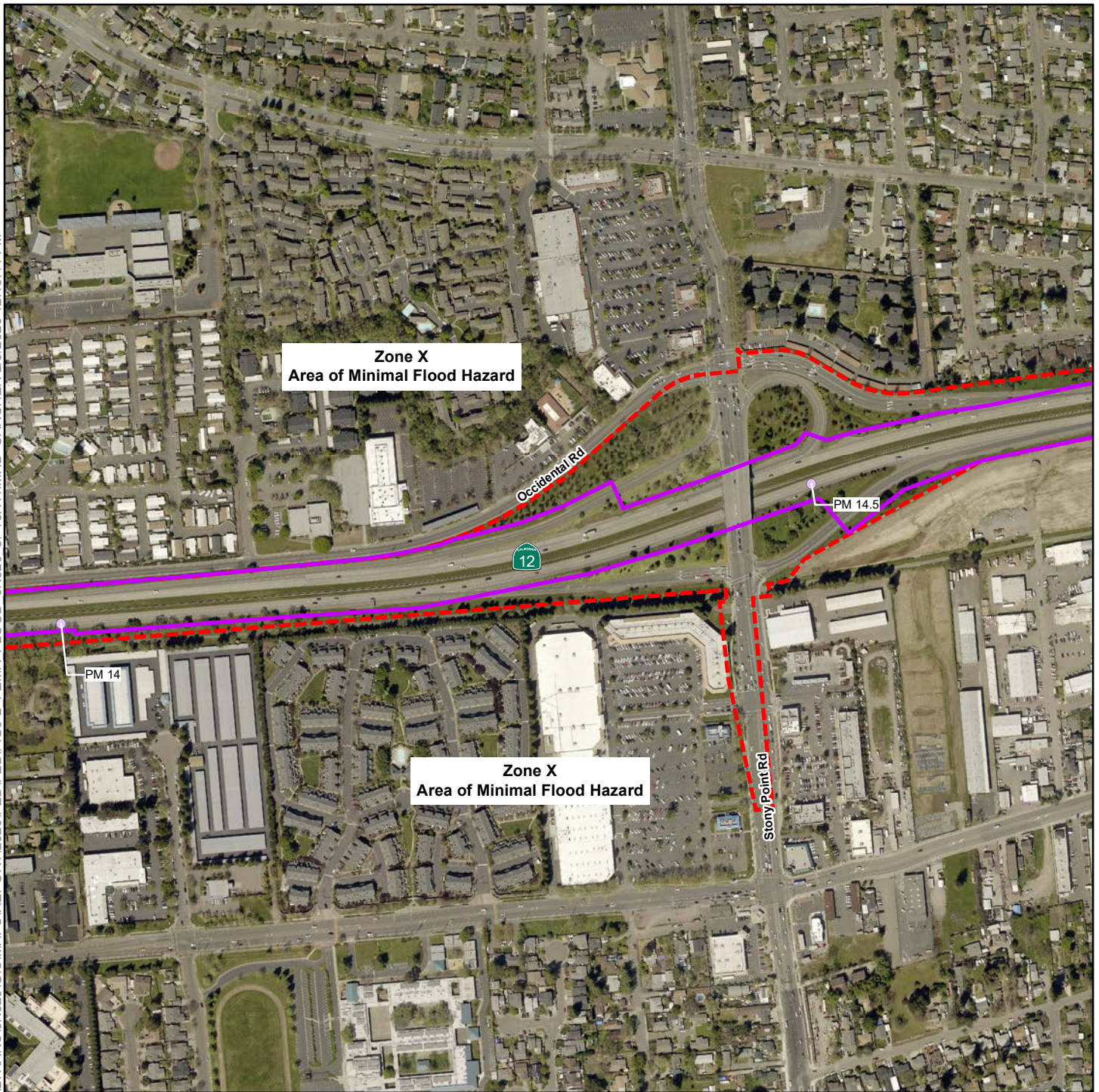






FIGURE 3-2
Map 4 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California






\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJ\GIS\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FEB\FEB\FIG3-2_FEMA_FLOOD_0K520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



LEGEND

-  Project Limits
-  Mile Post
-  Right of Way
-  Cross-Sections

FEMA National Flood Hazard Zone Type

-  A - 1% Annual Chance Flood Hazard
-  AE - 1% Annual Chance Flood Hazard
-  AE - Regulatory Floodway
-  X - 0.2% Annual Chance Flood Hazard
-  X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

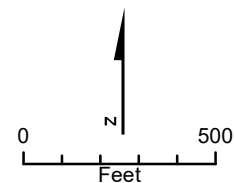
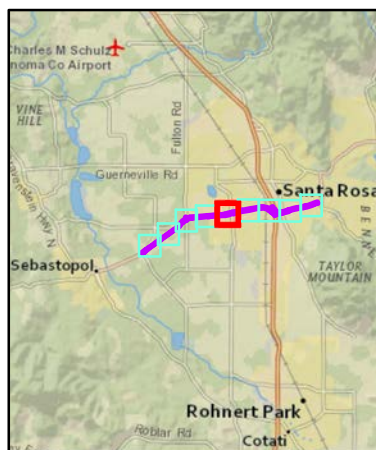


FIGURE 3-2
Map 5 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJ\GIS\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-2_FEMA_FLOOD_0K520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



LEGEND

- Project Limits
- Mile Post
- Right of Way
- Cross-Sections

FEMA National Flood Hazard Zone Type

- A - 1% Annual Chance Flood Hazard
- AE - 1% Annual Chance Flood Hazard
- AE - Regulatory Floodway
- X - 0.2% Annual Chance Flood Hazard
- X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

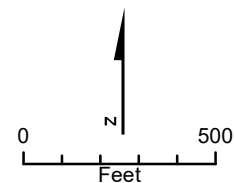
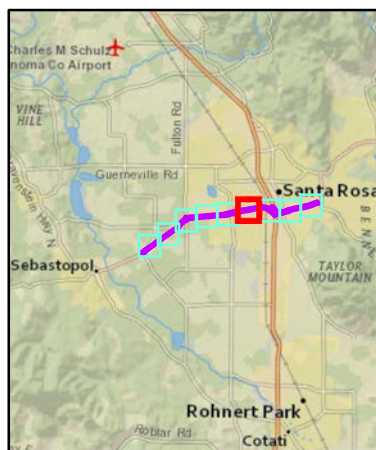
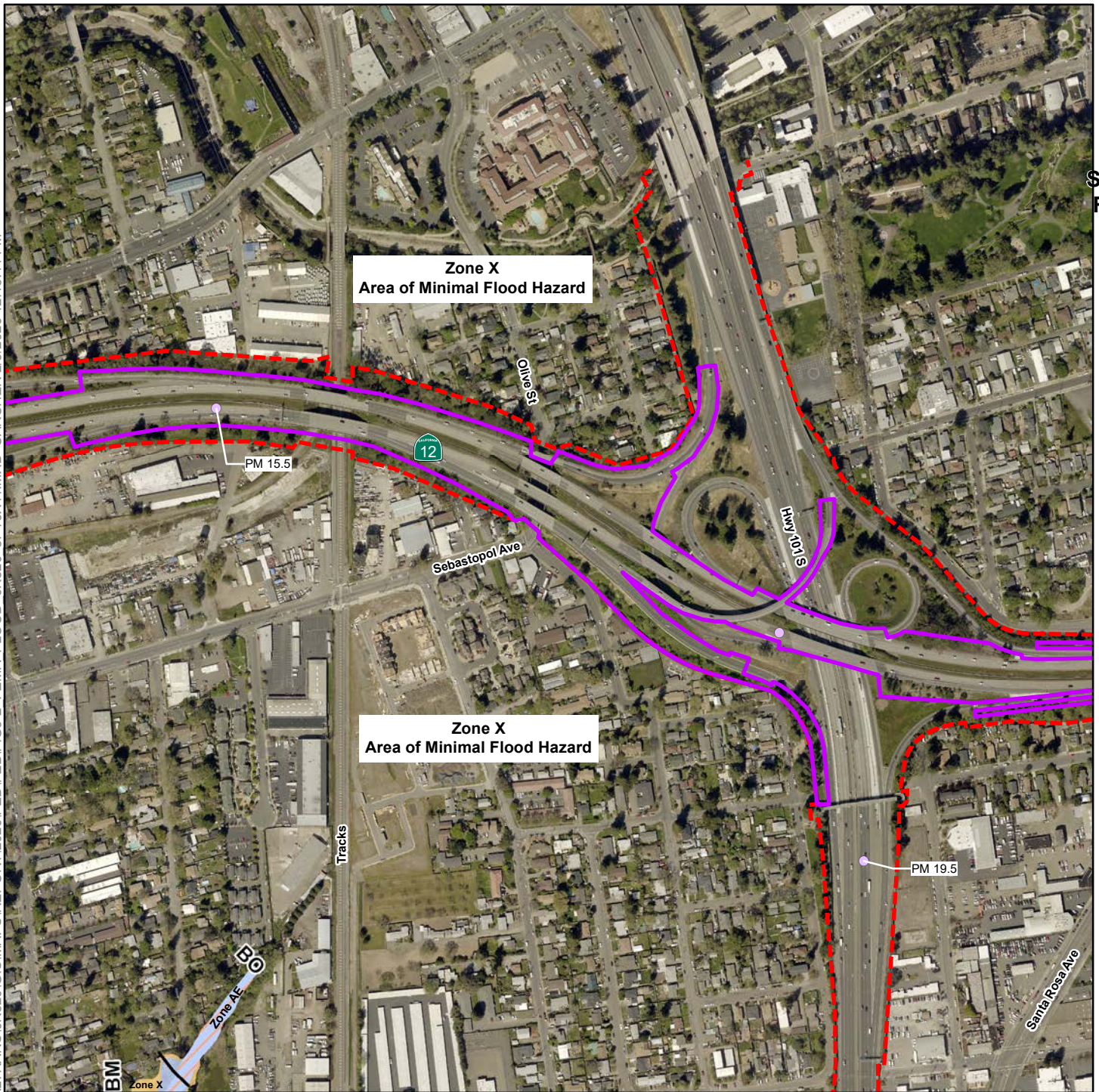


FIGURE 3-2
Map 6 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJ\GIS\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-2_FEMA_FLOOD_0K520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



Santa
Rosa

LEGEND

- Project Limits
- Mile Post
- Right of Way
- Cross-Sections

FEMA National Flood Hazard Zone Type

- A - 1% Annual Chance Flood Hazard
- AE - 1% Annual Chance Flood Hazard
- AE - Regulatory Floodway
- X - 0.2% Annual Chance Flood Hazard
- X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

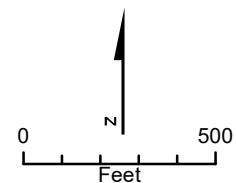
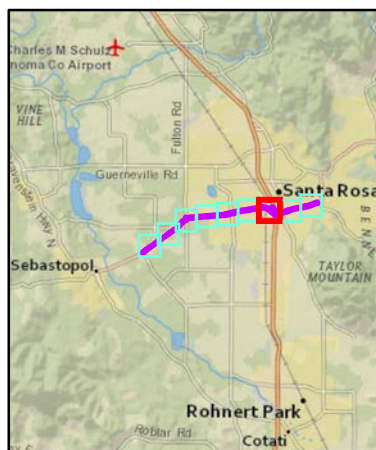






FIGURE 3-2
Map 7 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California






\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJ\GIS\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-2_FEMA_FLOOD_0K520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



LEGEND

-  Project Limits
-  Mile Post
-  Right of Way
-  Cross-Sections

FEMA National Flood Hazard Zone Type

-  A - 1% Annual Chance Flood Hazard
-  AE - 1% Annual Chance Flood Hazard
-  AE - Regulatory Floodway
-  X - 0.2% Annual Chance Flood Hazard
-  X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

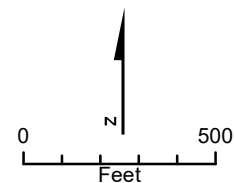
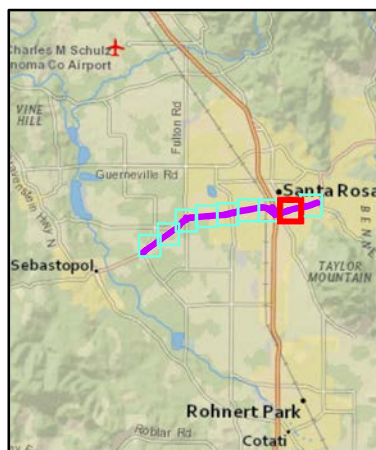
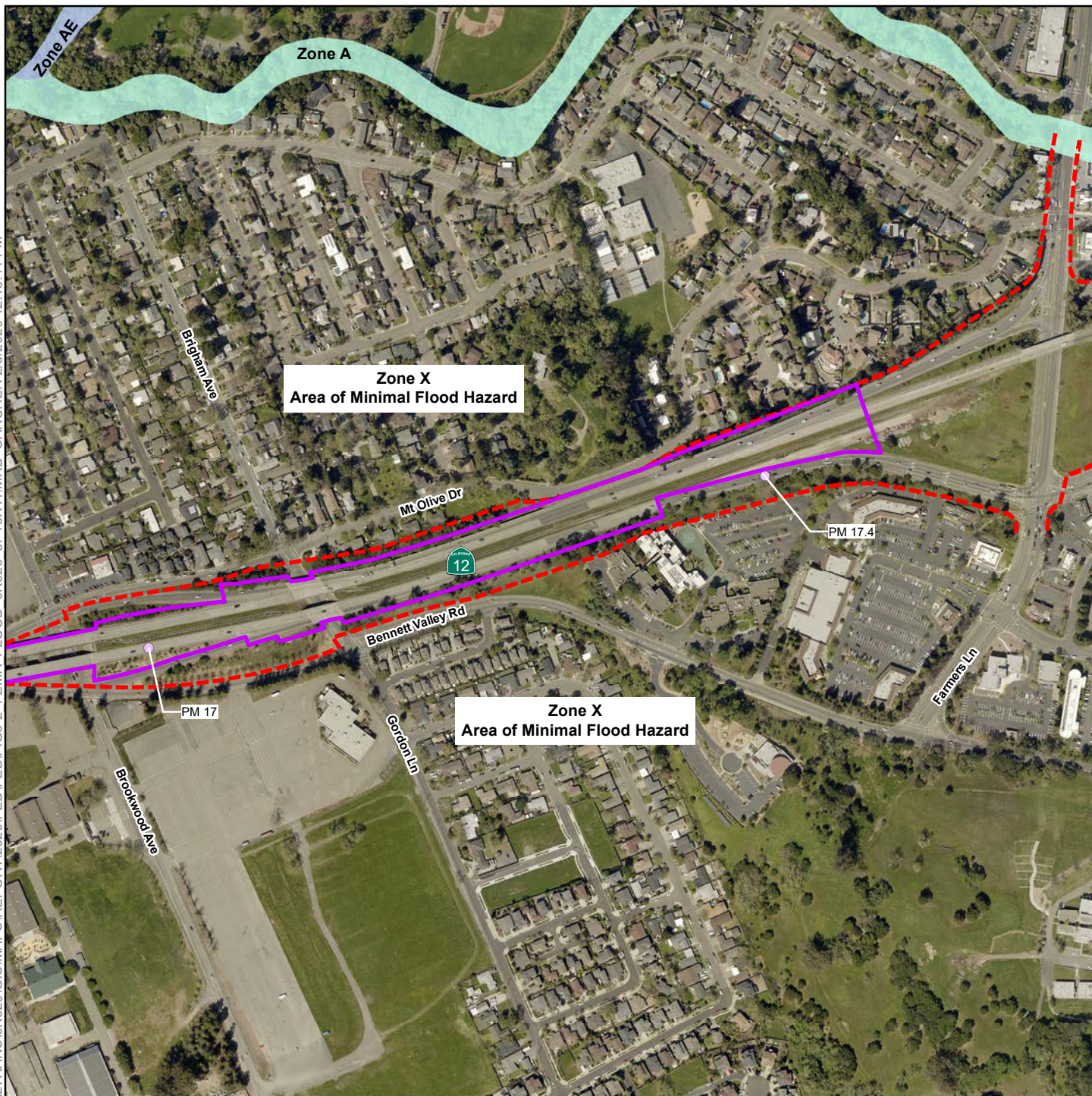


FIGURE 3-2
Map 8 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

\\BROOKSIDE\FILES\GIS_SHARE\ENBG\00_PROJ\GIS\CALTRANS\0K520\GIS\MAPS\REPORT\2020\FED\FEB\FIG3-2_FEMA_FLOOD_0K520_8PT5X11.MXD CARCHER 2/3/2020 12:18:44 PM



LEGEND

- Project Limits
- Mile Post
- Right of Way
- Cross-Sections

FEMA National Flood Hazard Zone Type

- A - 1% Annual Chance Flood Hazard
- AE - 1% Annual Chance Flood Hazard
- AE - Regulatory Floodway
- X - 0.2% Annual Chance Flood Hazard
- X - Area of Minimal Flood Hazard

Source: FEMA National Flood Hazard Layer
<https://hazards.fema.gov/gis/nfhl/services>
Imagery from Sonoma County 2018

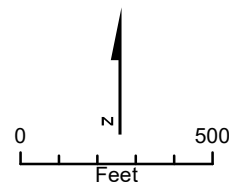


FIGURE 3-2
Map 9 of 9
FEMA National Flood Hazard
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

Land Use/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

The Project limits consist of a regional transportation corridor within the Caltrans ROW bordered by mostly developed properties. The west end of the Project corridor in unincorporated Sonoma County, west of Wright Road/Fulton Road (PM 11.0 to 13.0), is predominately rural in character with adjacent agricultural and rural residential uses. East of Wright Road/Fulton Road, within the City of Santa Rosa's Urban Growth Boundary (City of Santa Rosa 2019a), adjacent land use transitions to low- and medium-density residential, commercial, and mixed-use development.

a, b) No Impact

The Project would not physically divide an established community and would not conflict with any land use plan, policy, or regulation adopted to mitigate an environmental effect. The Project would not alter existing land uses along the highway corridor. No impact to land use or planning would occur.

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 does not occur in a known mineral resource zone (Miller and Busch 2013) and the Project does not propose activities that would disturb mineral resources, if present. The Project would have no impact to mineral resources.

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 Memorandum was completed for the Project on August 9, 2019 (Caltrans 2019g). 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects. Caltrans uses this same definition when evaluating state projects without federal funding. The Project was determined not to be a Type I project¹ per 23 CFR 772 because the Project would not increase highway

¹ Per the FHWA Noise Standard (23 CFR 772) the following are Type I Projects:

- (1) The construction of a highway on new location; or,
- (2) The physical alteration of an existing highway where there is either:
 - (i) Substantial Horizontal Alteration. A project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition; or,
 - (ii) Substantial Vertical Alteration. A project that removes shielding therefore exposing the line-of-sight between the receptor and the traffic noise source. This is done by either altering the vertical alignment of the highway or by altering the topography between the highway traffic noise source and the receptor; or,
- (3) The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a HOV lane, High-Occupancy Toll (HOT) lane, bus lane, or truck climbing lane; or,
- (4) The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane; or,
- (5) The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange; or,
- (6) Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane; or,
- (7) The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza. (8) If a project is determined to be a Type I project under this definition then the entire project area as defined in the environmental document is a Type I project.

(continued)

capacity or modify the horizontal or vertical alignment of the highway; therefore, a traffic noise study is not required and noise abatement need not be considered. Nevertheless, there are sensitive receptors (residential homes) located near areas where noisy construction activities may occur. The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to evaluate whether the Project may result in adverse temporary construction noise impacts to nearby residences.

The RCNM was used to estimate the noise levels during construction based on representative sound levels for the most common types of construction equipment and the estimated equipment usage factor. Vehicles and equipment likely to be used during each phase of construction were input into RCNM to estimate the maximum hourly noise level (L_{\max})² and the average hourly noise level (L_{eq})² at receptor locations and at hypothetical non-specific locations at various distances. The model was run for each major construction phase/activity.

The Caltrans 2018 Standard Specifications 14-8.02 requires L_{\max} not to exceed 86 dBA at 50 feet from the Project limits from 9:00 p.m. to 6:00 a.m.

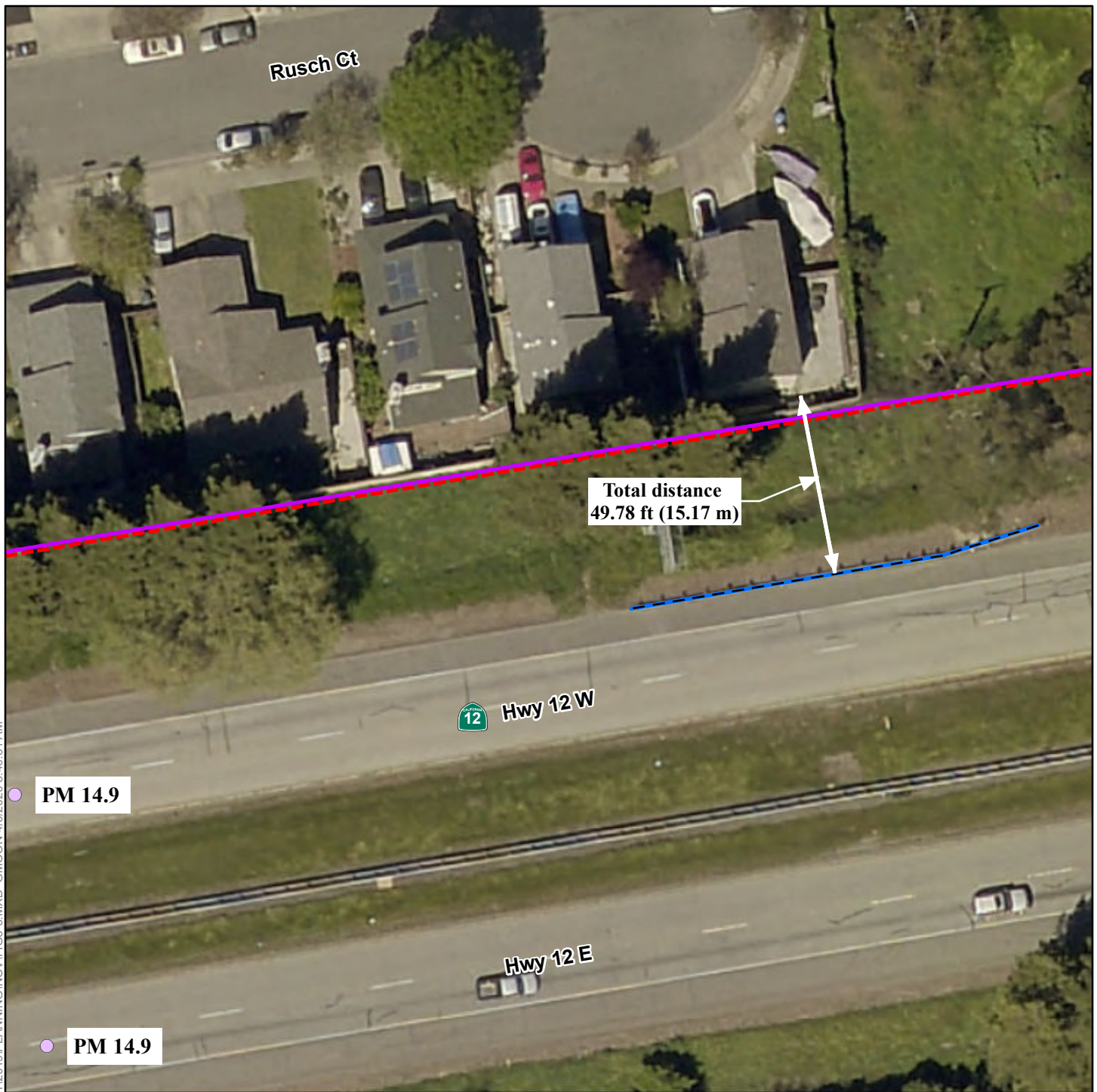
a) Less than Significant with Mitigation

The Project would not generate substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project. The *Construction Noise Analysis Memorandum* (Caltrans 2019g) analysis determined that the noisiest operations would be the grinding of Portland cement concrete (PCC) pavement and removing approach slabs. Both of these activities would produce 95.7 dBA L_{\max} at a distance of 50 feet.

One sensitive receptor (residential home) was identified in the vicinity of the Project footprint. This sensitive receptor would perceive noise greater than 86 dBA L_{\max} between 9:00 p.m. to 6:00 a.m. within 50 feet from the installation of MGS and grinding of PCC pavement (Figure 3-3).

² L_{\max} is the highest instantaneous noise level during a specified time. L_{eq} is the averaged level equivalent in energy to the time-varying noise levels during the same period.

\\DC1VS01\GIS\PROJECTS\CALTRANS\04520\GIS\MAPS\REPORT\2019\PLANNING\NOV\FIG3-3.MXD GMOON 4/6/2020 8:40:31 AM



LEGEND

- Project Limits
- Mile Post
- Right of Way
- Metal Beam Guard Rail

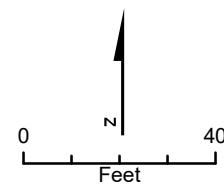
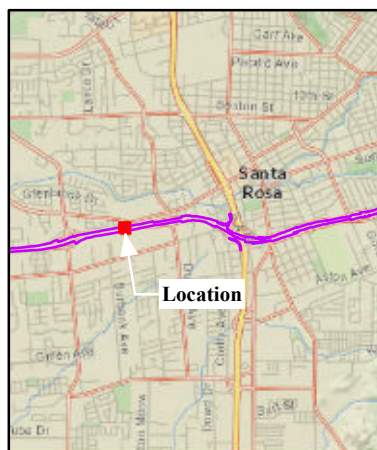


FIGURE 3-3
Installation of Guardrails and
Grinding of PCC Pavement
State Route 12 Capital Preventive
Maintenance Project
EA 04-0K520, SON-12-11.0/17.4
Sonoma County, California

Construction noise associated with this activity would be experienced for short durations during the nighttime. As discussed in Section 2.1.6, Construction Activities, paving of SR 12 would occur at nighttime while most construction related activities would occur during the daytime. Construction paving activities would generate noise levels of 81.6 dBA at nighttime, less than the 86 dBA L_{max} for nighttime construction activities. Temporary nighttime noise would be reduced with the implementation of Mitigation Measure NOI-1, Temporary Noise Barriers, Project Features NOI-1 and NOI-2 as described in Table 2-1, and the AMMs NOI-1 through NOI-5, described below. Therefore, construction-related noise impacts would be less than significant with mitigation.

b) Less than Significant Impact

Construction activities would not generate excessive groundborne vibration or noise levels. During construction, activities such as paving would generate vibration, however, these activities would not be excessive. Therefore, impact would be less than significant.

AVOIDANCE AND MINIMIZATION MEASURES FOR NOISE

AMM NOI-1: Sensitive Receptors. The Project would locate all stationary noise-generating construction equipment as far as practical from noise-sensitive receptors or provide baffled housing or sound aprons to equipment when sensitive receptors adjoin or are near construction activities.

AMM NOI-2: Public Outreach. Public outreach would be required throughout the Project to update residents, businesses, and others subject to upcoming temporary noise impacts.

AMM NOI-3: Noise Reduction Best Management Practices.

- **Mufflers.** All internal combustion engine driven equipment would be equipped with manufacturer-recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- **Quiet Equipment.** The Project would utilize “quiet” air compressors and other “quiet” equipment where such technology exists.

AMM NOI-4: Noise Scheduling. The Project would schedule noisy operations within the same time frame. The total noise level would not be significantly greater than the level produced if operations are performed separately.

AMM NOI-5: Equipment Deliveries. No construction equipment would be delivered or dropped off in the Project limits before 6:00 a.m. in the vicinity of the sensitive receptor (residential home).

MITIGATION MEASURE FOR CONSTRUCTION NOISE

MM NOI-1: Temporary Noise Barriers. During construction, Caltrans or its contractor will install temporary noise barriers such as plywood panels between the sensitive receptor located within 50 feet of the construction activities to reduce construction noise to less than 86 dBA between 9 p.m. and 6 a.m.

Other options to reduce construction noise in the source-to-receiver noise paths using temporary enclosures such as sound curtains around stationary equipment will be reviewed and approved by Caltrans as appropriate.

c) No Impact

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

Population/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 proposed Project would not induce population growth because it does not increase the capacity of SR 12, remove barriers to future growth, or increase population or housing growth (or demand for new housing, utilities, or public services). The Project would not induce population growth, displace housing, or displace people. Therefore, there would be no impact to population and housing.

Public Services

Would the Project:	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 in the Project limits, such as fire and police protection, schools, parks or other public facilities, nor trigger the need for new government facilities or alter the demand for public services. There would be no impact.

Recreation

Would the Project:	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

The Joe Rodota Trail runs adjacent to the Project limits to the south and west of SR 12 (Figure 2-1). The closest recreational park is South Davis Park, which is located near shoulder and drainage improvements that are proposed along the eastbound SR 12 to southbound U.S. 101 connector. An existing masonry soundwall separates the park from the roadside work area. Other nearby parks include Julliard Park, the Luther Burbank Park playground, the Martin Luther King Jr. Park, and Olive Park.

a, b) No Impact

The Project would not directly or indirectly increase the demand of existing recreational facilities such that substantial deterioration of the facilities would occur. In addition, the Project would not require the construction of additional recreational facilities. There would be no impacts.

Transportation/Traffic

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	

In the Project corridor, SR 12 is a four-lane divided highway (two eastbound and two westbound lanes) from the eastern end of the Project to approximately 0.5 mile west of the Fulton Road intersection, where it narrows to a two-lane highway for the remainder of the Project limits. The proposed Project would maintain all existing roadway features, including design speed, lane and shoulder width, curve radius, cross slope, superelevation rate, maximum grade, and sight distance. The Project would not increase vehicular capacity. The proposed Project would not permanently alter the circulation system and would have no permanent impact on vehicle miles traveled.

The proposed Project could cause short-term localized traffic congestion and delays due to lane and shoulder closures. Lane closures would occur throughout construction, primarily during the nighttime.

a) Less than Significant Impact

The proposed Project would not conflict with programs, plans, ordinances, or policies regarding the circulation system, public transit, bicycle, or pedestrian facilities. The Sonoma County General Plan Policy CT-6a identifies the need to address deficiencies, improve safety, and support ongoing maintenance, particularly on SR 12 (Sonoma County 2008). As described in Section 2.1, Purpose and Need, the purpose of the proposed Project is to comply with the Transportation Asset Management

policy which requires Caltrans assets such as curb ramps, electrical signals and curb ramps within the Project limits to be up to standard.

There are daily bus services on SR 12 that are operated by Sonoma County Transit (routes 20 and 24) and the Mendocino Transit Authority (Route 95; Sonoma County Transit 2019, Mendocino Transit Authority 2019). Transit routes operated by Santa Rosa CityBus do not utilize SR 12 in the Project corridor (City of Santa Rosa 2019b).

To protect construction workers and the traveling public, traffic control would be in place while construction activities are underway. A detailed TMP would be developed during the design phase to provide a safe construction zone. Lane closures are anticipated for the work on the mainline and shoulders. Temporary pedestrian access would be provided during construction. As part of the TMP, Sonoma County Transit and the Mendocino Transit Authority would be notified prior to construction activities that involve lane closures to minimize service disruption. Impacts would be less than significant.

b) Less than Significant Impact

The Project would be consistent with CEQA Guidelines Section 15064.3, subdivision b. The Project would have no permanent impact on vehicle miles traveled as it is not increasing capacity. 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 proposed Project does not include any design features or construction elements that would substantially increase hazards (e.g., sharp curves or dangerous intersections). There would be no impact.

d) Less than Significant Impact

With implementation of Project Feature TRA-1, as described in Table 2-1, medical and emergency vehicles would be able to continue to use routes in the local area to serve fire, medical, and law enforcement purposes. Flaggers would give priority to emergency vehicles. The impact would be less than significant.

Tribal Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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: 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 initiated formal notification under Assembly Bill 52 with letters for each individual and/or organization on October 16, 2019. Follow up emails were sent on October 21, 2019. Individuals contacted include Patricia Hermosillo, Chairperson for the Cloverdale Rancheria of Pomo Indians; Chris Wright, Chairperson for the Dry Creek Rancheria Band of Pomo Indians; Greg Sarris, Chairperson of the Federated Indians of Graton Rancheria; Dino Franklin Jr., Chairperson for the Kashia Band of Pomo Indians of the Stewarts Point Rancheria; Marjorie Mejia, Chairperson for the Lytton Rancheria; Jose Simon III, Chairperson for the Middletown Rancheria; and Scott Gabaldon, Chairperson for the Mishewal-Wappo Tribe of Alexander Valley. No responses have been received at this time.

a, b) No Impact

Implementation of Project Features CUL-1 and CUL-2, as described in Table 2-1, would reduce the potential impacts to undiscovered tribal cultural resources associated with ground-disturbing activities during construction. The Project would have no impact on tribal cultural resources.

Utilities/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 storm water 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

Utilities along the Project corridor include overhead PG&E electric and AT&T telecommunication lines. Underground utility relocation may be necessary during construction at Fulton Road for ADA curb ramp work. Verification of utility locations and necessary relocations would be determined during the design phase in coordination with the utility provider.

a) Less than Significant Impact

The proposed Project would require relocation of underground utilities. Utility providers would be notified ahead of the construction activities to minimize utility service disruptions as outlined in Project Feature UTI-2 (Table 2-1). The impact would be less than significant.

b, c) No Impact

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

d, e) 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 Feature UTI-1, as described in Table 2-1, would require the proper disposal of construction trash. There would be no impact.

Wildfire

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			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 a Local Responsibility Area, with the Santa Rosa Fire Department, as well as volunteer fire companies operating through the Sonoma County Fire and Emergency Services Department providing fire suppression, rescue, and emergency services along the Project corridor. The Project is outside of a State Responsibility Area (SRA) and is not within a high severity fire area (California Department of Forestry and Fire Protection 2007).

a) Less than Significant Impact

A Traffic Management Plan (see Table 2-1) would be developed during the design phase to 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 include coordination with Sonoma County Department of Emergency Management and provide instructions for response and evacuation in the event of an emergency such as a wildfire. In addition, the proposed Project would not

conflict with any other emergency response or evacuation plan. The impact would be less than significant.

b, c, d) No Impact

The Project proposes to resurface the existing pavement on SR 12, upgrade curb ramps to ADA standards, implement complete street improvements, and upgrade drainage structures at connector termini. It would not exacerbate wildfire risk, nor would it require the installation of associated infrastructure that would exacerbate fire risk. There would be no impact.

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 with Mitigation

The proposed 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 proposed Project would have temporary construction impacts. The Project has the potential to significantly impact the CTS and its upland habitat during construction activities. With the implementation of the Project Features summarized in Table 2-1, the AMMs described in this chapter, and Mitigation Measure BIO-1, these potentially significant impacts to CTS would be reduced to less than significant with mitigation.

The Project would not eliminate important examples of the major periods of California history or prehistory. Project Features and AMMs would avoid or minimize potential impacts on biological, and cultural resources.

b) Less than Significant Impact

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 the health of a resource within the context of impacts from past, present, and other reasonably foreseeable future actions; and (3) determine whether, collectively, the proposed Project and the foreseeable condition combine to result in a cumulative impact.

The proposed Project involves the rehabilitation of deteriorated pavements, drainage improvements, and upgrades of pedestrian curb ramps along a transportation corridor. The proposed Project would occur within the Caltrans ROW. The Project would not convert lands to a new or different use, increase roadway capacity, induce growth, or otherwise change land use patterns. The proposed 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 (IS) with Mitigated Negative Declaration (MND) identifies temporary construction-related impacts on aesthetics, air quality, biological resources, energy, geology/soils, greenhouse gas 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 12 and U.S. 101 corridor occur within a similar timeframe, cumulative effects may occur (e.g., 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 proposed Project would not contribute considerably to cumulative environmental impacts. Cumulative impacts to these resources would be reduced with the proper implementation of Project Features, AMMs, and Mitigation Measures. Therefore, the Project would have less than significant impacts.

c) Less than Significant with Mitigation

Residences and businesses are located throughout the Project corridor. Intermittent night work would occur throughout the proposed Project; however, implementation of Mitigation Measure NOI-1, Temporary Noise Barriers, Project Features and AMMs would reduce temporary dust, noise, and traffic-related impacts. Therefore, environmental impacts to human beings from temporary construction-related activities would be less than significant with mitigation.

Chapter 4 Comments and Coordination

4.1 Tribal Coordination

- October 16, 2019: Caltrans initiated formal notification under Assembly Bill 52 with letters for each individual and/or organization. Individuals contacted include Patricia Hermosillo, Chairperson for the Cloverdale Rancheria of Pomo Indians; Chris Wright, Chairperson for the Dry Creek Rancheria Band of Pomo Indians; Greg Sarris, Chairperson of the Federated Indians of Graton Rancheria; Dino Franklin Jr., Chairperson for the Kashia Band of Pomo Indians of the Stewarts Point Rancheria; Marjorie Mejia, Chairperson for the Lytton Rancheria; Jose Simon III, Chairperson for the Middletown Rancheria; and Scott Gabaldon, Chairperson for the Mishewal-Wappo Tribe of Alexander Valley. No responses have been received at this time.
- October 21, 2019: Follow up emails were sent to each aforementioned individual and/or organization.

4.2 Biological Resources Coordination

- July 10, 2019: Telephone conversation between Robert Blizard (Caltrans) and John Cleckler (USFWS). Discussed Project features and possible impacts to CTS habitat.
- August 7, 2019: Discussion during CDFW office hours in the Caltrans District 4 Oakland office between Robert Blizard and Robert Stanley (CDFW). Discussed Project features and possible impacts to CTS and CTS habitat. Discussed having discussion with USFWS to establish Consistency Determination.
- August 8, 2019: Telephone conversation between Robert Blizard and John Cleckler. Discussed Project features and possible impacts to CTS and CTS habitat. Discussed having discussion with CDFW to establish Consistency Determination.
- October 15, 2019: Discussion during CDFW office hours in the Caltrans District 4 Oakland office between Robert Blizard and Robert Stanley. Discussed Project feature changes and results of field review.

- November 26, 2019: Robert Blizzard and Bridget Sousa (Swaim Biological, Inc.) conducted a field review with John Cleckler and Robert Stanley to discuss possible impacts to CTS habitat, particularly at Project staging areas.
- February 24, 2020: Biological Assessment for California Tiger Salamander submitted to USFWS.
- April 17, 2020: The Biological Opinion was issued by USFWS (see Appendix G).

Chapter 5 List of Preparers

The primary persons 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	Helen Blackmore	Senior Environmental Planner – Architectural History Branch
Caltrans	Robert Blizzard	Branch Chief, Biology
Caltrans	Ramamohan Bommavaram	Project Manager
Caltrans	Melanie Brent	Deputy District Director, Environmental Planning and Engineering
Caltrans	Douglas Bright	Associate Environmental Planner – Architectural Historian
Caltrans	Robert Camargo	District Program Advisor, Pavement Program
Caltrans	Christopher Caputo	Acting Chief, Office of Environmental Analysis
Caltrans	John Cardarelli	Branch Chief, Right of Way Engineering
Caltrans	Jayshree Chauhan	Associate Environmental Planner, Water Quality Permits
Caltrans	Sonam Choera	Project Engineer
Caltrans	Lindsay Hartman	Associate Environmental Planner – Archaeology
Caltrans	Stefan Galvez-Abadia	District Division Chief, Division of Environmental Planning and Engineering
Caltrans	Tom Jiang	Transportation Engineer
Caltrans	Hanna Khoury	Branch Chief, Utility Engineering
Caltrans	Kevin Krewson	Branch Chief, Air Quality and Noise
Caltrans	Susan Lindsay	Branch Chief, Landscape Architecture
Caltrans	Arnica MacCarthy	Branch Chief, Office of Environmental Analysis
Caltrans	Kamran Nakhjiri	Branch Chief, Storm Water Design B
Caltrans	Diana Pink	Landscape Associate
Caltrans	Kathleen Reilly	District Branch Chief, Office of Hydraulic Engineering
Caltrans	Christopher Riden	Senior Engineering Geologist, Office of Geotechnical Design West

Table 5-1 List of Preparers and Reviewers

Organization	Name	Role
Caltrans	Kathryn Rose	Senior Environmental Planner – Archaeology Branch
Caltrans	Ronald Sangalang	Branch Chief, Design North Counties
Caltrans	Hardeep Takhar	Water Quality Program Manager
Caltrans	Brian Villamor	Environmental Engineer
Caltrans	Christopher Wilson	District Branch Chief, Hazardous Waste
Caltrans	Jerry Zhong	Branch Chief, Right of Way Engineering
CH2M HILL	Chris Archer	GIS Analyst
CH2M HILL	Holly Barbare	Biologist
CH2M HILL	Bryan Bell	Technical Editor
CH2M HILL	Rebecca Birtley	GIS Analyst
CH2M HILL	Karen Dolan	GIS Analyst
CH2M HILL	Clarice Ericsson	Publications Technician
CH2M HILL	Natalie Escoffier	Environmental Planner
CH2M HILL	Lynne Hosley	Senior Project Manager
CH2M HILL	Jasmin Mejia	Senior Environmental Planner/Project Manager
CH2M HILL	Loretta Meyer	Project Manager
CH2M HILL	Sam Schoevaars	Environmental Planner
Area West Environmental, Inc.	Aimee Dour-Smith	Senior Project Manager
Area West Environmental, Inc.	Corinne Munger	Environmental Planner
Area West Environmental, Inc.	Becky Rozomowicz-Kodsuntie	Senior Biologist

Chapter 6 Distribution List

The IS-MND was circulated beginning on January 3, 2020 through February 3, 2020 to the public and to the following agencies and government officials:

Agencies

Federal Agencies

Mr. John Cleckler,
Caltrans District 4 Liaison
United States Fish and Wildlife
2800 Cottage Way, Suite W-2605
Sacramento, CA 95825

The Honorable Kamala Harris
United States Senate
333 Bush Street, Suite 3225
San Francisco, CA 94104

UNITED STATES HOUSE OF REPRESENTATIVES

The Honorable Mike Thompson
United States House of Representatives
2300 Count Center Drive, Suite A-100
Santa Rosa, CA 95403

State Agencies

Mr. Gregg Erickson, Regional Manager
California Department of Fish and
Wildlife, Region 3
2825 Cordelia Road, Suite 100
Fairfield, CA 94534

State Officials

CALIFORNIA STATE SENATE

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

Ms. Fran Inman, Chair
California Transportation Commission
1120 N Street, MS 52
Sacramento, CA 95814

Elected Officials

Federal Officials

UNITED STATES SENATE

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

CALIFORNIA STATE ASSEMBLY

The Honorable Jim Wood
California State Assembly, District 2
50 D Street, Suite 450
Santa Rosa, CA 95404

County Officials

SONOMA COUNTY BOARD OF SUPERVISORS

The Honorable Susan Gorin
Sonoma County Board of Supervisors,
District 1
575 Administration Drive, Room
100-A
Santa Rosa, CA 95403

The Honorable David Rabbitt
Sonoma County Board of Supervisors,
District 2
575 Administration Drive, Room
100-A
Santa Rosa, CA 95403

The Honorable Shirlee Zane
Sonoma County Board of Supervisors,
District 3
575 Administration Drive, Room
100-A
Santa Rosa, CA 95403

The Honorable James Gore
Sonoma County Board of Supervisors,
District 4
575 Administration Drive, Room 100 A
Santa Rosa, CA 95403

The Honorable Lynda Hopkins
Sonoma County Board of Supervisors,
District 5
575 Administration Drive, Room
100-A
Santa Rosa, CA 95403

City Officials

CITY OF SEBASTOPOL

Ms. Neysa Hinton, Mayor
City of Sebastopol
7120 Bodega Avenue
Sebastopol, CA 95472

CITY OF SANTA ROSA

Mr. Tom Schwedhelm, Mayor
City of Santa Rosa
100 Santa Rosa Avenue, Room 10
Santa Rosa, CA 95404

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, 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.

November 2019

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

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

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

A blue ink signature of Toks Omishakin, consisting of a stylized 'T' followed by 'O' and 'A'.

Toks Omishakin
Director

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

Appendix B Environmental Commitments Record

SON 12 CAPM
 SON-012-11.000/17.400
 Current Project Phase: 0

EP: Sam Schoevaars
 CL:
 RE:

Permits

Permit	Agency	Date Submitted	Date Received	Expiration	Requirements Name	Completed Date	Comments
2080.1 - Consistency Determination	California Department of Fish and Wildlife						
Biological Opinion	United States Fish and Wildlife	February 24, 2020	April 17, 2020				

Commitments

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
PS&E/Before RTL						
Biological Resources – Invasive Species						
PF BIO-10: Landscaping and Erosion Control Plan. A landscaping and erosion control plan would be prepared to restore disturbed areas with climate-adapted species.	SSP	SSP	Landscape architecture associate	A Landscape architecture associate would prepare an erosion control plan.		
Hazards and Hazardous Materials						
PF HAZ-1: Aerially Deposited Lead Work Plan. A work plan for aerially deposited lead if required would be prepared during the design (Plans, Specifications and Estimate (PS&E)) phase.	SSP	SSP	CT Hazardous Waste Specialist and RE	An Aerially Deposited Lead Work Plan would be prepared during the PS&E phase.		
Traffic and Transportation						
PF TRA-1: Traffic Management Plan (TMP). A TMP would be developed by Caltrans. The TMP would include elements such as haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing, to reduce impacts to local	SSP	SSP	CT traffic management staff, contractor and RE	CT traffic management staff would develop a TMP to reduce traffic impacts during construction.		

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
residents as feasible and maintain access for police, fire, and medical services in the local area. Temporary pedestrian access would be provided during construction.						
Pre-Construction						
Biological Resources – Animal and Plant Species						
AMM: BIO-1: Pre-construction Surveys for Rare Plants. Detailed protocol-level floristic surveys for special-status plant species that have at least some potential to occur would be conducted at the appropriate time of year prior to the start of the Project for all locations of suitable habitat within the Project limits. If a special-status plant is detected, the Project limits boundary would be adjusted to avoid impacting the species.	NES	NSSP	CT biologist	A CT biologist would survey the project limits for special status plant species in the appropriate season prior to construction. Project limits would be revised to avoid species impacts if special status species are found.		
AMM BIO-2: California Tiger Salamander Capture and Relocation Plan. At least 30 days prior to construction, an agency-approved biologist would submit a CTS Capture and Relocation Plan to the USFWS describing CTS relocation methods and locations.	BO	NSSP	Agency approved biologist	An agency-approved biologist would submit a CTS Capture and Relocation Plan to the USFWS.		
PF BIO-4: Worker Environmental Awareness Training. All construction personnel would attend a mandatory environmental education program, to be delivered by an agency-approved biologist, prior to beginning construction, or prior to beginning work on the Project. This program would provide information on special-status species and the employees' personal responsibility in avoiding impacts to species during construction. At a minimum, the training would include: a description of CTS and migratory birds and their habitats; a discussion of the potential occurrence of these species within the Project limits; an explanation of the status of these species and protection under FESA and CESA; the description of measures to be implemented to conserve listed species and their habitats as they relate to the work site. Information would be provided on protected species to construction personnel, along with compliance reminders and relevant contact information. Documentation of the	SSP	SSP	Agency approved biologist, and contractor	The agency approved biologist would provide training to the contractor on special status species. Documentation of the training and sign-in sheet would be available upon request.		

SON 12 CAPM

SON-012-11.000/17.400

Current Project Phase: 0

EP: Sam Schoevaars

CL:

RE:

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
training and sign-in sheets would be kept on file and available on request.						
PF BIO-5: Pre-construction Surveys and Biological Monitoring. An agency-approved biologist would conduct pre-construction surveys for special-status species. The biologist would be present during construction activities, including establishment of ESAs, vegetation clearing and grubbing, ground disturbance, and other work activities when special-status species may be harmed or harassed. If at any point, any listed species is discovered within the Project limits, a 50-foot-wide work restriction buffer would be applied until the animal moves out of the area or the animal is relocated out of harm's way; the regulatory agency(ies) would be notified.	SSP	SSP	Agency approved biologist, and contractor	The agency approved biologist would conduct pre-construction surveys for special-status species and be present when activities that may harm or harass special-status species occur. If a listed species is discovered within the project limits, a 50-foot-wide work restriction buffer would be applied until the animal moves out of the area or the animal is relocated, in which regulatory agencies must be notified.		
PF BIO-6: Pre-construction Surveys for Nesting Birds. Bird Protection Special Provision would be included in the construction contract. A preconstruction survey for migratory birds and raptors would be required within fourteen (14) days prior to construction if construction activities occur within migratory bird nesting season (February 1 through September 30) and subsequent surveys would be required every three days throughout the nesting season. If migratory birds or raptors are found nesting adjacent to a work area during construction activities, the following ESA buffers would be required: If an active raptor nest is observed, a 300-foot ESA buffer must be implemented to avoid impacting the young until they have fledged; a 50-foot ESA buffer around any active nests of non-raptor migratory birds is required to protect the young until they have fledged, or as otherwise determined by the agency-approved biologist.	SSP	SSP	Agency approved biologist, and contractor	The agency approved biologist would conduct pre-construction for migratory birds and raptors within 14 days prior to construction and may require subsequent surveys every 3 days if construction occurs between February 1st to September 30th. If raptors or birds are discovered, ESA buffers of 300 feet for an active raptor nest and 50 feet for a non-raptor migratory bird would be applied. Special provisions for bird protection would be in the construction contract.		

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
PF BIO-11: Cleaning of Equipment. Equipment would be thoroughly cleaned before arriving in the Project limits to prevent the spread of noxious weeds from other locations.	SSP	SSP	Contractor	The contractor would ensure that equipment is clean prior to arriving to the project limits.		
Biological Resources – Natural Communities						
PF BIO-1: Designated Construction Areas, Delineated ESAs, Work Areas, and Equipment and Materials Storage Sites. Caltrans would delineate construction areas and ESAs (areas containing sensitive habitats adjacent to or within the Project limits for which physical disturbance is not allowed) on the final construction plans. The agency-approved biologist would be onsite to direct the installation of ESA fencing, flagging, or other approved means of delineation prior to the start of construction, to prevent encroachment of personnel and equipment into sensitive areas during construction. When feasible staging, storage, and parking areas would be located on paved or graveled surfaces within the Caltrans ROW and away from any designated ESAs, to minimize construction impacts to protected resources. Equipment and materials storage sites would also be located as far away from residential uses as practicable. At the discretion of the agency-approved biologist, limits would also be defined near other environmentally sensitive locations, such as bird nests, when necessary. The ESA fencing, flagging, or other material would be removed when construction activities are complete in the immediate vicinity.	SSP	SSP	Agency approved biologist and contractor	The agency approved biologist would delineate protected habitat with ESA fencing. The contractor would ensure that construction activities and/or equipment would not encroach on ESA areas and maintain fencing until construction activities are completed in the area.		
PF BIO-2: Wildlife Exclusion Fencing. Before starting construction, Wildlife Exclusion Fencing (WEF) would be installed around staging areas located within 1.3 miles of California Tiger Salamander (CTS; <i>Ambystoma californiense</i>) breeding pools, as mapped by the Santa Rosa Plain Conservation Strategy (SRPCS). The WEF would remain in place throughout the duration of the Project related activities at the staging area, which is expected to be one to two weeks for a given location. The final plans would depict all locations where WEF would be installed and indicate how it would be installed. The special provisions in the bid solicitation package would clearly describe acceptable fencing material.	SSP	SSP	Agency approved biologist and contractor	The contractor would install WEF fencing according to final plans and maintain fencing in place until the end of construction.		

SON 12 CAPM

SON-012-11.000/17.400

Current Project Phase: 0

EP: Sam Schoevaars

CL:

RE:

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
Biological Resources – T and E Species						
PF BIO-15: No Monofilament Netting. Plastic monofilament netting (erosion control matting) or similar material would not be used because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds.	SSP	SSP	Contractor and RE	The contractor would avoid using monofilament netting for erosion control.		
Hazards and Hazardous Materials						
PF HAZ-2: Hazardous Materials Incident Contingency Plan. A hazardous materials incident contingency plan would be prepared to report, contain, and mitigate roadway spills. The plan would designate a chain of command for notification, evacuation, response, and cleanup of roadway spills.	SSP	SSP	CT Hazardous Waste Specialist	A CT Hazardous Waste Specialist would prepare a contingency plan to report spills and designate a chain of command.		
Hydrology and Water Quality						
PF HYD-1: Stormwater Pollution Prevention Plan (SWPPP). A SWPPP would be developed and erosion control best management practices (BMPs) would be implemented in compliance with the requirements of the North Coast Regional Water Quality Control Board (RWQCB). SWPPP must be prepared by the Contractor and approved by Caltrans, pursuant to Caltrans 2018 Standard Specification 13-3 and Special Provisions. Protective measures would include, at a minimum:	SSP	SSP	Contractor	The Contractor would prepare a SWPPP to be approved by CT prior to construction.		
<ul style="list-style-type: none"> a. Disallowing any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses. b. All grindings, asphalt waste, and concrete waste would be hauled offsite by the end of shift, or if stored in upslope areas, would be a minimum of 50 feet, if feasible, from any aquatic resources, would be stored within previously disturbed areas absent of habitat, and would be protected by secondary containment measures consistent 						

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
<p>with proposed Caltrans BMPs designed specifically to contain spills or discharges of deleterious materials.</p> <p>c. Dedicated fueling and refueling practices would be designated as part of the approved SWPPP. Dedicated fueling areas would be protected from stormwater run-off and would be located at a minimum of 50 feet from downslope drainage facilities and water courses.</p> <p>d. Fueling must be performed on level-grade areas. Onsite fueling would only be used when and where it is impractical to send vehicles and equipment offsite for fueling. When fueling must occur onsite, the contractor would designate an area to be used subject to the approval of the Caltrans Resident Engineer. Drip pans or absorbent pads would be used during onsite vehicle and equipment fueling.</p> <p>e. Spill containment kits would be maintained onsite at all times during construction operations and/or staging or fueling of equipment.</p> <p>f. Dust control measures consistent with Air Quality Project Features would be implemented. Dust control would be addressed during the environmental education session.</p> <p>g. Coir logs or straw wattles would be installed in accordance with the Caltrans BMP Guidance Handbook, to capture sediment.</p> <p>h. Graded areas would be protected from erosion using a combination of silt fences, erosion control netting (such as jute or coir), and fiber rolls in accordance with the Caltrans BMP Guidance Handbook.</p>						
Utilities and Service Systems						
PF UTI-2: Notify Utility Owners of Construction Schedule to Protect Utilities. All affected utility companies, including PG&E and AT&T, would be notified of construction schedules for proposed Project work so that they can relocate cable or provide special instructions for cable protection if	SSP	SSP	RE	The RE would notify affected utility companies of the construction schedule to minimize disruption of utility service.		

SON 12 CAPM

SON-012-11.000/17.400

Current Project Phase: 0

EP: Sam Schoevaars

CL:

RE:

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
needed, and minimize disruption of utility service.						
Construction						
Aesthetics						
PF AES-3: Construction Staging. Except as detailed in the Contract Plans, staging areas would not affect existing landscaped areas resulting in death and/or removal of trees and shrubs, or disruption and destruction of existing irrigation facilities.	SSP	SSP	Contractor	The contractor would avoid impacts to landscaped areas and irrigation as feasible.		
PF AES-4: Construction Waste. During construction operations unsightly material and equipment in staging areas would be placed where they are less visible and/or covered where possible.	SSP	SSP	Contractor	The contractor would avoid having unsightly materials in high visible areas or may cover materials as feasible.		
PF AES-5: Construction Lighting. Construction activities would limit all construction lighting to within the immediate vicinity of active work during night hours and avoid light trespass through directional lighting, shielding, and other measures as needed. For required nighttime work, all lighting would be directed downwards and towards the active construction area. This would reduce and avoid light impacts on travelers, nearby residences, and nearby recreational facility users.	SSP	SSP	Contractor	The contractor would limit lighting to the activities needed and avoid excess lighting to residences or travelers.		
Air Quality						
PF AIR-1: Dust Control. Dust control measures would be included in the Storm Water Pollution Prevention Plan (SWPPP) and implemented to minimize construction impacts to existing communities. The plan would incorporate measures such as sprinkling, speed limits, transport of materials, and timely revegetation of disturbed areas as needed, as well as posting a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints and at the Bay Area Air Quality Management District (BAAQMD) regarding compliance with applicable regulations. Water or dust palliative would be	SSP	SSP	Contractor	The contractor would deploy dust control measures in compliance with BAAQMD regulations.		

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emissions or at the ROW line, depending on air pollution control district and air quality management district regulations and local ordinances.						
PF AIR-2: Idling and Access Points. Idling times would be minimized either by shutting off equipment when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage would be provided for construction workers at all access points. Construction activities involving the extended idling of diesel equipment or vehicles would be prohibited, to the extent feasible.	SSP	SSP	Contractor	The contractor would reduce idling time of equipment to 5 minutes or turn off equipment when not in use.		
PF AIR-3: Maintaining Construction Equipment and Vehicles. All construction equipment and vehicles would be maintained and properly tuned in accordance with manufacturer's specifications. All equipment would be checked by a certified mechanic and determined to be running in proper condition prior to operation.	SSP	SSP	Contractor	The contractor would ensure maintenance of equipment according to manufacturer specifications.		
PF AIR-4: Contractor Air Quality Compliance. The construction contractor must comply with the Caltrans Standard Specifications in Section 14-9, which require contractor compliance with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.	SSP	SSP	Contractor	The contractor must comply with Caltrans Standard Specifications in Section 14-9.		

Biological Resources – Animal and Plant Species

PF BIO-3: Construction Work Windows. Construction work windows would be incorporated into the Project including, but not limited to: vegetation removal would be scheduled outside the bird nesting season (February 1 to September 30) to the extent feasible or consistent with Feature BIO-6. Biological restrictions to avoid impacts to CTS include avoidance of working in wet weather by restricting ground disturbing activities in suitable CTS habitat to be between April 15 and October 15. This would be required for activities west of the Fulton Road intersection (PM 13.1) and does not	SSP	SSP	Contractor, RE, and CT Biologist	The contractor, RE and CT biologist would schedule vegetation removal and ground disturbing activities outside the edge of pavement adjacent to CTS habitat outside of the applicable work windows.		
---	-----	-----	----------------------------------	---	--	--

SON 12 CAPM

SON-012-11.000/17.400

Current Project Phase: 0

EP: Sam Schoevaars

CL:

RE:

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
apply to activities within the existing pavement limits or activities east of the Fulton Road intersection.						
PF BIO-7: Biologist Authority to Stop Construction. The agency-approved biologist would stop work, as directed by the RE, in the vicinity of any protected species that are discovered. Work would not begin again until the individual species is either relocated by the monitor or moves out of harm's way by itself.	SSP	SSP	Agency approved biologist, RE, and contractor	The agency approved biologist, in coordination with the RE may cease construction activities that occur in the vicinity of a protected species. Construction may resume once the species is relocated or moves out of the vicinity.		
PF BIO-8: Avoidance of Entrapment. To prevent inadvertent entrapment of animals during construction, excavated, steep-walled holes or trenches more than 1 foot deep would be covered at the close of each working day using plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the Project limits overnight would be inspected before they are subsequently moved, capped, and/or buried.	SSP	SSP	Contractor	The contractor would cover or provide escape ramps for animals for holes deeper than 1 foot at the end of each working day. Before holes are filled, they must be inspected for trapped animals. Pipes, culvert and similar structures stored onsite must be inspected prior to being moved, capped or buried.		
PF BIO-9: Construction Site Management Practices. The following site restrictions would be implemented to avoid or minimize potential effects on listed species and their habitats, pursuant to Caltrans 2018 Standard Specifications and Special Provisions: a. Enforce a speed limit of 15 mph on unpaved areas within the Project limits to reduce dust and soil disturbance. b. Locate construction access, staging, storage, and parking areas within Caltrans ROW outside any designated ESAs. Access routes, staging and storage areas, and contractor parking would be limited to	SSP	SSP	Contractor	The contractor would implement site best management practices to avoid impacts to listed species and their habitats.		

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
<p>the minimum necessary to construct the proposed Project. Routes and boundaries of roadwork would be clearly marked before initiating construction or grading.</p> <p>c. Certify, to the maximum extent practicable, borrow material is non-toxic and weed free.</p> <p>d. Enclose food and food-related trash items in sealed trash containers and remove them from the site at the end of each day.</p> <p>e. Prohibit pets from entering the Project limits during construction.</p> <p>f. Prohibit firearms within the Project limits, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.</p> <p>g. Maintain equipment to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents and developing a spill response plan. Hazardous materials, such as fuels, oils, and solvents, would be stored in manufacturer approved containers at a designated location that is at least 200 feet from downslope aquatic habitats, if feasible. Otherwise, refer to Feature HYD-1 Stormwater Pollution Prevention Plan.</p> <p>h. All grindings, asphalt waste, and concrete waste would be hauled offsite by the end of shift, or if stored in upslope areas, would be a minimum of 200 feet, if feasible, from any aquatic resources, would be stored within previously disturbed areas absent of habitat, and would be protected by secondary containment measures consistent with proposed Caltrans BMPs designed specifically to contain spills or discharges of deleterious materials. If storing 200 feet from aquatic resources is not feasible, refer to Feature HYD-1 Stormwater Pollution Prevention Plan.</p> <p>i. Dedicated fueling and refueling practices would be designated as part of the approved SWPPP. Dedicated fueling areas would be protected from stormwater run-off and would be located at a minimum of 200 feet from downslope drainage facilities and</p>						

SON 12 CAPM

SON-012-11.000/17.400

Current Project Phase: 0

EP: Sam Schoevaars

CL:

RE:

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
water courses, if feasible. If options 1 through 3 are not feasible, refer to Feature HYD-1 Stormwater Pollution Prevention Plan.						
Biological Resources – Invasive Species						
PF BIO-12: Reduce Spread of Invasive Species. Noxious weeds would be controlled within the Project construction site in accordance with Caltrans' Highway Design Manual Topic 110.5, "Control of Noxious Weeds – Exotic and Invasive Species," and Executive Order 13112 (Invasive Species), and by methods approved by a Caltrans' landscape architect or vegetation control specialist.	SSP	SSP	Contractor	The contractor would prevent spread of noxious weeds by following the Caltrans' Highway Design Manual 11.05 and EO 13112.		
Biological Resources – T and E Species						
PF BIO-13: Special-Status Species Handling. An agency-approved biologist would handle threatened and endangered species using approved handling techniques. Standard species-handling protocols would be used if individuals are discovered within the Project limits.	SSP	SSP	Agency approved Biologist	An agency approved biologist would use standard species handling protocols to handle threatened and endangered species within the project limits.		
PF BIO-14: Consultation with Agencies. Coordination with the regulatory agency(ies) would occur if individuals of species under federal and/or state jurisdiction are found within the Project limits during construction.	SSP	SSP	CT biologist	A CT biologist would consult with agency(ies) if a protected species is found within the project limits.		
Cultural Resources						
PF CUL-1: Discovery of Cultural Resources. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a Caltrans qualified archaeologist can assess the nature and significance of the find.	SSP	SSP	CT qualified archaeologist, RE, and Contractor	The contractor would cease construction activities if cultural materials are discovered. The RE and Contractor would cease all project activities until a Caltrans qualified archaeologist accesses the find.		

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
PF CUL-2: Discovery of Human Remains. If remains are discovered during excavation, all work within 60 feet of the discovery would halt and Caltrans' Cultural Resource Studies office would be called. Caltrans' Cultural Resources Studies Office Staff would assess the remains and, if determined human, would contact the County Coroner as 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, the Coroner would contact the Native American Heritage Commission who would then assign and notify a Most Likely Descendant. Caltrans would consult with the Most Likely Descendant on respectful treatment and reburial of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	SSP	SSP	CT OCR Staff, RE, and Contractor	The contractor would cease construction activities within 60 feet of human remains discovered. The RE or Contractor would contact CT OCR. An OCR staff would access the remains, and if determined to be human would contact the County Coroner.		
Greenhouse Gas Emissions						
EC 2PF GHG-2: Energy Reduction. Solar sign boards would be used when feasible.	SSP	SSP	Contractor and RE	The contractor and RE would use solar sign boards when feasible.		
Hydrology and Water Quality						
PF HYD-2: Water Quality BMPs. To address the temporary water quality impacts resulting from the construction activities in the Project limits, BMPs would include the measures of sediment control, pH control, material and job site management, and erosion control.	SSP	SSP	Contractor	The Contractor would avoid water quality impacts through BMP measures.		
PF HYD-3: Low-Impact Development Controls. The proposed added impervious area is more than 1 acre (1.34 acres) therefore, water quality permanent BMPs are required. The Municipal Regional Permit prioritizes the use of low-impact development measures for stormwater treatment controls. These measures are harvesting and use, infiltration, evapotranspiration, and biotreatment. Other conventional treatment measures (such as basins and vaults) are allowable under special conditions outlined in the permit. Caltrans has an approved list of treatment BMPs that have been studied and verified to provide pollutant removal from stormwater. The permanent BMPs would be incorporated during construction phase to reduce the pollutants in stormwater discharges.	SSP	SSP	Contractor and RE	The RE and Contractor would implement permanent water quality BMPs to reduce the pollutants in stormwater discharges.		

SON 12 CAPM

SON-012-11.000/17.400

Current Project Phase: 0

EP: Sam Schoevaars

CL:

RE:

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
<p>PF HYD-4: Seasonal Restrictions for Water Quality. their habitats:</p> <p>a. Ground disturbing activities in suitable CTS habitat would be conducted between April 15 and October 15, depending on the level of rainfall and/or site conditions.</p> <p>b. Work within drainages would occur between June 1 and October 15.</p>	SSP	SSP	Contractor and RE	The Contractor and RE would abide by the following work windows: Grade between April 15 and October 15. Complete drainage work from June 1 to October 15.		
Noise						
AMM NOI-1: Sensitive Receptors. The Project would locate all stationary noise-generating construction equipment as far as practical from noise-sensitive receptors or provide baffled housing or sound aprons to equipment when sensitive receptors adjoin or are near construction activities.	Noise Study	NSSP	Contractor	The contractor would locate stationary noise-generating equipment as far as practicable from sensitive receptors.		
AMM NOI-2: Public Outreach. Public outreach would be required throughout the Project to update residents, businesses, and others subject to upcoming temporary noise impacts.	Noise Study	NSSP	CT Public Information Officer	A CT Public Information Officer would conduct public outreach to inform the community on temporary noise impacts.		
<p>AMM NOI-3: Noise Reduction Best Management Practices.</p> <ul style="list-style-type: none"> Mufflers. All internal combustion engine driven equipment would be equipped with manufacturer-recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment. Quiet Equipment. The Project would utilize "quiet" air compressors and other "quiet" equipment where such technology exists. 	Noise Study	NSSP	Contractor	The contractor would utilize mufflers and quiet equipment when available.		
AMM NOI-4: Noise Scheduling. The Project would schedule noisy operations within the same time frame. The total noise level would not be significantly greater than the level produced if operations are performed separately.	Noise Study	NSSP	Contractor	The Contractor would schedule noisy operations within the same time frame.		
AMM NOI-5: Equipment Deliveries. No construction equipment would be delivered or dropped off in the	SSP	SSP	Contractor	The contractor would schedule equipment delivery and drop offs no		

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
Project limits before 6:00 a.m. in the vicinity of the sensitive receptor (residential home).				earlier than 6:00 am.		
MM NOI-1: Temporary Noise Barriers. During construction, Caltrans or its contractor will install temporary noise barriers such as plywood panels between the sensitive receptor located within 50 feet of the construction activities to reduce construction noise to less than 86 dBA between 9 p.m. and 6 a.m. Other options to reduce construction noise in the source-to-receiver noise paths using temporary enclosures such as sound curtains around stationary equipment will be reviewed and approved by Caltrans as appropriate.	Env Doc	NSSP	Contractor	The Contractor will install temporary noise barriers between sensitive receptors located within 50 feet of the construction activities to reduce construction noise to less than 86 dBA between 9 p.m. and 6 a.m.		
PF NOI-1: Idling of Internal Combustion Engines. Unnecessary idling of internal combustion engines would be avoided within 100 feet of sensitive receptors.	SSP	SSP	Contractor	The Contractor would avoid idling of internal combustion engines within 100 feet of sensitive receptors.		
PF NOI-2: Maintaining Internal Combustion Engines. All internal combustion engines would be maintained properly to minimize noise generation.	SSP	SSP	Contractor	The contractor would properly maintain combustion engines to minimize noise.		

Utilities and Service Systems

PF UTI-1: Trash Management. All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed at least once daily from the Project limits. A Trash Reduction System would also be developed and implemented per Caltrans Statewide National Pollution Discharge Elimination System (NPDES) Permit and San Francisco RWQCB Cease and Desist Order.	SSP	SSP	Contractor and RE	The Contractor would remove waste from the project limits each day.		
---	-----	-----	-------------------	---	--	--

Post-Construction

Aesthetics

AMM AES-1: Replace Removed Trees. During construction, work would result in the removal of existing trees. Caltrans or its contractor, at the direction of Caltrans, would replace all removed trees within the Project limits to the extent feasible before operation of the Project. Landscape trees removed would be replanted where feasible. Irrigation damaged and/or removed as a result of the	SSP	SSP	Contractor	Caltrans or its contractor would replace all removed trees and replant landscaped trees, to the extent feasible. The contractor would repair/replace damaged and/or removed irrigation.		
--	-----	-----	------------	---	--	--

SON 12 CAPM

SON-012-11.000/17.400

Current Project Phase: 0

EP: Sam Schoevaars

CL:

RE:

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
Project would require repair/replacement as part of the Project.						
PF AES-1: Vegetation Protection. Existing trees and vegetation would be preserved to the extent feasible. Trees and vegetation outside of clearing and grubbing limits would be protected from the contractor's operations, equipment, and materials storage. Tree trimming and pruning, where required, would be under the direction of a qualified biologist.	SSP	SSP	Contractor, CT Biologist	The contractor would avoid damage to trees and vegetation to the extent feasible where impacts were not predetermined. Tree trimming and pruning would be directed by the CT biologist.		
PF AES-2: Erosion Control. After construction, all areas cleared within the Project limits for uses such as contractor access, staging and trenching operations.	SSP	SSP	Contractor	The contractor would implement erosion control measures to needed areas post construction.		

Biological Resources – T and E Species

MM BIO-1: CTS. Temporary impacts to CTS habitat at the 0.19-acre staging area located on the north side of SR 12 near the Llano Road intersection (near PM 11) will be mitigated at a ratio of 2:1, in accordance with the SRPCS, by the purchase of 0.38 acre of CTS upland habitat credits from a USFWS- and CDFW-approved mitigation bank prior to Project construction	NES	NSSP	CT biologist, RE and Contractor	During construction if CTS burrow impacts cannot be avoided then mitigation at a ratio of 2:1 will be required, in accordance with SRPCS. The CT biologist will consult with USFWS and CDFW to purchase conservation credits at an approved mitigation bank.		
--	-----	------	---------------------------------	--	--	--

Greenhouse Gas Emissions

PF GHG-1: Waste Reduction. If practicable, nonhazardous waste and excess material would be recycled. If recycling is not practicable, the material would be disposed of appropriately.	SSP	SSP	Contractor and RE	The RE and Contractor would recycle when possible.		
--	-----	-----	-------------------	--	--	--

Task and Brief Description	Source	SSP/ NSSP	Responsible Staff	Action to Comply	Task Completed Name Date	Remarks/Due Date
Arnica MacCarthy Environmental Branch Chief						
Ron Sangalang Project Engineer					BOMMAVARAM, RAMAMOHAN R Project Manager	
Resident Engineer						

Appendix C List of Abbreviated Terms

°F	degrees Fahrenheit
ADA	Americans with Disabilities Act
AMM	avoidance and minimization measure
APE	area of potential effects
AT&T	American Telephone and Telegraph
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
BSA	Biological Study Area
Caltrans	California Department of Transportation
CAPM	Capital Preventive Maintenance
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO ₂	carbon dioxide
CTS	California tiger salamander
dBA	A-weighted decibels
ESA	environmentally sensitive area
FHWA	Federal Highway Administration

FP	Fully Protected
GHG	greenhouse gas
HOT	High-Occupancy Toll
IS	Initial Study
Leq	average hourly noise levels
Lmax	maximum hourly noise levels
MBGR	metal beam guardrail
MGS	Midwest Guardrail System
MND	Mitigated Negative Declaration
NES	Natural Environment Study
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System
PM _{2.5}	particulate matter 2.5 micrometer
PM ₁₀	particulate matter 10 micrometer
PCC	Portland cement concrete
PG&E	Pacific Gas and Electric Company
PM	post mile
PRC	Public Resources Code
PS&E	Plans, Specifications, and Estimate

Programmatic Agreement	<i>First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans regarding compliance with Section 106 of the NHPA, as it pertains to the Administration of the Federal Aid Highway Program in California</i>
Project	Capital Preventive Maintenance Project on State Route 12 in Sonoma County, California
RCNM	Roadway Construction Noise Model
ROW	right of way
RWQCB	Regional Water Quality Control Board
SFBAAB	San Francisco Bay Area Air Basin
SR	State Route
SRA	State Responsibility Area
SRPCS	Santa Rosa Plain Conservation Strategy
SSC	California species of special concern
ST	state listed as threatened
SWPPP	Stormwater Pollution Prevention Plan
TCE	Temporary Construction Easement
TMP	Traffic Management Plan
Unit 1	Santa Rosa Plain Unit
U.S. 101	U.S. Highway 101
USFWS	United States Fish and Wildlife Service
WEF	Wildlife Exclusion Fencing

Appendix D List of Technical Studies and References

California Department of Conservation. 2016. [Sonoma County Important Farmland](#).

Available online at:

(<ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/son16.pdf>). April 2018.

California Department of Fish and Wildlife (CDFW). 2019. [California Natural Diversity Database \(CNDDB\). RareFind 5](#). Available online at:

(<https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx>). Queried for Guerneville, Healdsburg, Mark West Springs, Camp Meeker, Sebastopol, Santa Rosa, Valley Ford, Two Rock, Cotati, Kenwood, Calistoga, and Glen Ellen USGS 7.5-minute quadrangles. Accessed on October 11, 2019.

California Department of Forestry and Fire Protection. 2007. [Fire Hazard Severity Zones in SRA](#). Available online at:

(https://osfm.fire.ca.gov/media/6822/fhszs_map49.pdf). Adopted November 7, 2007.

California Department of Transportation (Caltrans). 2015. *Pavement Condition Detailed Report*.

California Department of Transportation (Caltrans). 2018. [California Transportation Asset Management Plan](#). Available online at:

(http://www.tamptemplate.org/wp-content/uploads/tamps/033_california.pdf). January 2018.

California Department of Transportation (Caltrans). 2019a. [Complete Streets Program](#). Available online at: (<https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/smart-mobility-active-transportation/complete-streets>). Accessed: September 30, 2019.

California Department of Transportation (Caltrans). 2019b. *Scenic Resource Evaluation and Visual Impact Assessment Memorandum*. September 20, 2019.

California Department of Transportation (Caltrans). 2019c. *Office of Cultural Resource Studies Section 106 review for CAP M Pavement Improvement on State Route 12, Sonoma County Memorandum*. July 9, 2019.

California Department of Transportation (Caltrans). 2019d. *Construction Greenhouse Gas Emissions Analysis Memorandum*. August 9, 2019.

California Department of Transportation (Caltrans). 2019e. *Hydraulics Study*. May 23, 2019.

California Department of Transportation (Caltrans). 2019f. *Water Quality Study*. September 2019.

California Department of Transportation (Caltrans). 2019g. *Construction Noise Analysis Memorandum*. August 9, 2019.

California Department of Transportation (Caltrans). 2019h. *Natural Environment Study*. October 2019.

California Department of Transportation (Caltrans). 2020. *Biological Assessment for California Tiger Salamander (*Ambystoma californiense*)*. February 2020.

California Division of Mines and Geology. 1982. [Fault Evaluation Report FER-141](#). Available online at: (http://gmw.conservation.ca.gov/SHP/EZRIM/Reports/FER/141/FER_141_Report_19820927.pdf). September 27, 1982.

California Native Plant Society (CNPS). 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). [Rare Plant Program](#). Available online at: (<http://www.rareplants.cnps.org/>). Queried for Guerneville, Healdsburg, Mark West Springs, Camp Meeker, Sebastopol, Santa Rosa, Valley Ford, Two Rock, Cotati, Kenwood, Calistoga, and Glen Ellen USGS 7.5-minute quadrangles. Accessed on October 11, 2019.

City of Santa Rosa. 2019a. [General Plan Land Use Diagram](#). Available online at: (<https://srcity.org/DocumentCenter/View/24996/General-Plan-Land-Use-Diagram-PDF---July-2019>). July 9, 2019.

City of Santa Rosa. 2019b. *Bus Trip Planning Tools*. [City of Santa Rosa Transportation and Public Works](#). Available online at: (<https://srcity.org/1661/Maps-and-Timetables>). Accessed October 8, 2019.

- Mendocino Transit Authority. 2019. [Maps and Schedules](https://mendocinotransit.org/maps-and-schedules/). Available online at: (https://mendocinotransit.org/maps-and-schedules/). Accessed October 8, 2019.
- Miller, Russel V. and Lawrence L. Busch. 2013. [Update of Mineral Land Classification: Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California](http://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_205/), California Geological Survey (formerly Division of Mines and Geology) Special Report 205. Available online at: (ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_205/). Accessed October 10, 2019.
- National Oceanographic and Atmospheric Administration (NOAA) Fisheries. 2020. California Species List Tool. Queried for endangered and threatened species within Santa Rosa and Sebastopol USGS 7.5-minute topographic quadrangles. https://archive.fisheries.noaa.gov/wcr/maps_data/california_species_list_tools.html. Accessed June 1, 2020.
- Sonoma County. 2008. [Sonoma County General Plan 2020 Circulation and Transit Element](https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/General-Plan/Circulation-and-Transit/). Available online at: (https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/General-Plan/Circulation-and-Transit/). Accessed October 8, 2019.
- Sonoma County. 2017. [SoCo PRMD GIS Williamson Act Land Contracts](https://links.sonoma-county.org/xAKDYCKV6YY/SoCo%20PRMD%20GIS%20Williamson%20Act%20Land%20Contracts.zip). Available online at: (https://links.sonoma-county.org/xAKDYCKV6YY/SoCo%20PRMD%20GIS%20Williamson%20Act%20Land%20Contracts.zip). March 27, 2017.
- Sonoma County Transit. 2019. [Routes and Schedules](http://sctransit.com/maps-schedules/). Available online at: (http://sctransit.com/maps-schedules/). Accessed October 8, 2019.
- U.S. Fish and Wildlife Service (USFWS). 2004. “Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population; Proposed Rule.” *Federal Register* 50(17):48570-48649.
- U.S. Fish and Wildlife Service (USFWS). 2005. [Santa Rosa Plain Conservation Strategy. Conservation strategy adopted by local agencies in Sonoma County.](#)

Available online at

(http://www.fws.gov/sacramento/es/santa_rosa_conservation.html).

U.S. Fish and Wildlife Service (USFWS). 2011. “Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Sonoma County Distinct Population Segment of California Tiger Salamander; Final Rule.” Federal Register 76(169):54346-54372.

U.S. Fish and Wildlife Service (USFWS). 2019. [Information for Planning and Consultation](#) online database. Species list query for the Project Location. Available online at: (<https://ecos.fws.gov/ipac/project/ORWLSOZVHNFNDHFLRA7SYRGF6M>). Accessed on September 4, 2019.

U.S. Fish and Wildlife Service (USFWS). 2020. Biological Opinion on the effects of the proposed project on the Sonoma California tiger salamander (Service File Number 08ESMF00- 2020-F-0265-1). April 2020.

Appendix E Species Lists



United States Department of the Interior



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

In Reply Refer To:

February 19, 2020

Consultation Code: 08ESMF00-2019-SLI-2935

Event Code: 08ESMF00-2020-E-03397

Project Name: Sonoma 12 Capital Preventative Maintenance Project

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

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

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-2935

Event Code: 08ESMF00-2020-E-03397

Project Name: Sonoma 12 Capital Preventative Maintenance Project

Project Type: TRANSPORTATION

Project Description: Resurfacing of mainline, shoulders and on/off ramps of State Route 12
Post Mile 11.0/17.4

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.42434966158646N122.77344924309341W>



Counties: Sonoma, CA

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle <i>Chelonia mydas</i> Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (CA - Sonoma County) There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Endangered

Insects

NAME	STATUS
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered

Crustaceans

NAME	STATUS
California Freshwater Shrimp <i>Syncaris pacifica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7903	Endangered

Flowering Plants

NAME	STATUS
Burke's Goldfields <i>Lasthenia burkei</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4338	Endangered
Clara Hunt's Milk-vetch <i>Astragalus clarianus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3300	Endangered
Pitkin Marsh Lily <i>Lilium pardalinum ssp. pitkinense</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/570	Endangered
Sebastopol Meadowfoam <i>Limnanthes vinculans</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/404	Endangered
Showy Indian Clover <i>Trifolium amoenum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6459	Endangered
Sonoma Alopecurus <i>Alopecurus aequalis var. sonomensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/557	Endangered
Sonoma Spineflower <i>Chorizanthe valida</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7698	Endangered
Sonoma Sunshine <i>Blennosperma bakeri</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1260	Endangered
Vine Hill Clarkia <i>Clarkia imbricata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7044	Endangered
White Sedge <i>Carex albida</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3063	Endangered
Yellow Larkspur <i>Delphinium luteum</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3578	Endangered

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> https://ecos.fws.gov/ecp/species/2076#crithab	Final



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

118 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quads 3812257, 3812256, 3812255, 3812247, 3812246, 3812245, 3812237, 3812236, 3812235, 3812258 3812248 and 3812238;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Listing Status	Federal Listing Status	Habitats	Lowest Elevation	Highest Elevation	CA Endemic
Agrostis blasdalei	Blasdale's bent grass	Poaceae	perennial rhizomatous herb	May-Jul	1B.2			<ul style="list-style-type: none"> Coastal bluff scrub Coastal dunes Coastal prairie 	0 m	150 m	yes
Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jun	1B.2			<ul style="list-style-type: none"> Cismontane woodland Valley and foothill grassland 	52 m	305 m	yes
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	Poaceae	perennial herb	May-Jul	1B.1		FE	<ul style="list-style-type: none"> Marshes and swamps (freshwater) Riparian scrub 	5 m	365 m	yes
Amorpha californica var. napensis	Napa false indigo	Fabaceae	perennial deciduous shrub	Apr-Jul	1B.2			<ul style="list-style-type: none"> Broadleafed upland forest (openings) Chaparral Cismontane woodland Coastal bluff scrub 	120 m	2000 m	yes
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2			<ul style="list-style-type: none"> Cismontane woodland Valley and foothill grassland 	3 m	500 m	yes
Anomobryum julaceum	slender silver moss	Bryaceae	moss		4.2			<ul style="list-style-type: none"> Broadleafed upland forest Lower montane coniferous forest North 	100 m	1000 m	

									Coast coniferous forest			
									• Broadleafed upland forest			
<u>Arabis blepharophylla</u>	coast rockcress	Brassicaceae	perennial herb	Feb-May	4.3				• Coastal bluff scrub • Coastal prairie • Coastal scrub	3 m	1100 m	yes
<u>Arctostaphylos bakeri ssp. bakeri</u>	Baker's manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	1B.1	CR			• Broadleafed upland forest • Chaparral	75 m	300 m	yes
<u>Arctostaphylos bakeri ssp. sublaevis</u>	The Cedars manzanita	Ericaceae	perennial evergreen shrub	Feb, Apr, May	1B.2	CR			• Closed- cone coniferous forest • Chaparral	185 m	760 m	yes
<u>Arctostaphylos densiflora</u>	Vine Hill manzanita	Ericaceae	perennial evergreen shrub	Feb-Apr	1B.1	CE			• Chaparral (acid marine sand)	50 m	120 m	yes
<u>Arctostaphylos hispidula</u>	Howell's manzanita	Ericaceae	perennial evergreen shrub	Mar-Apr	4.2				• Chaparral (serpentine or sandstone)	120 m	1250 m	
<u>Arctostaphylos stanfordiana ssp. decumbens</u>	Rincon Ridge manzanita	Ericaceae	perennial evergreen shrub	Feb- Apr(May)	1B.1				• Chaparral (rhyolitic) • Cismontane woodland • Chaparral • Cismontane woodland	75 m	370 m	yes
<u>Astragalus breweri</u>	Brewer's milk- vetch	Fabaceae	annual herb	Apr-Jun	4.2				• Meadows and seeps • Valley and foothill grassland (open, often gravelly) • Chaparral (openings) • Cismontane woodland	90 m	730 m	yes
<u>Astragalus claranus</u>	Clara Hunt's milk-vetch	Fabaceae	annual herb	Mar-May	1B.1	CT	FE		• Valley and foothill grassland • Chaparral • Cismontane woodland	75 m	275 m	yes
<u>Balsamorhiza macrolepis</u>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2				• Valley and foothill grassland • Chaparral • Cismontane woodland	45 m	1555 m	yes
<u>Blennosperma bakeri</u>	Sonoma sunshine	Asteraceae	annual herb	Mar-May	1B.1	CE	FE		• Valley and foothill grassland (mesic) • Vernal pools	10 m	110 m	yes
<u>Brodiaea leptandra</u>	narrow- anthered brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul	1B.2				• Broadleafed upland forest • Chaparral	110 m	915 m	yes

						<ul style="list-style-type: none"> • Cismontane woodland • Lower montane coniferous forest • Valley and foothill grassland • Bogs and fens • Broadleafed upland forest • Closed-cone coniferous forest • Coastal scrub • Meadows and seeps (mesic) • Marshes and swamps (freshwater) • North Coast coniferous forest 				
<u>Calamagrostis bolanderi</u>	Bolander's reed grass	Poaceae	perennial rhizomatous herb	May-Aug	4.2		0 m	455 m	yes	
<u>Calamagrostis crassiglumis</u>	Thurber's reed grass	Poaceae	perennial rhizomatous herb	May-Aug	2B.1		10 m	60 m		
<u>Calamagrostis ophitidis</u>	serpentine reed grass	Poaceae	perennial herb	Apr-Jul	4.3		90 m	1065 m	yes	
<u>Calandrinia breweri</u>	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2		10 m	1220 m		
<u>Calochortus raichei</u>	The Cedars fairy-lantern	Liliaceae	perennial bulbiferous herb	May-Aug	1B.2		200 m	490 m	yes	
<u>Calochortus uniflorus</u>	pink star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jun	4.2		10 m	1070 m		
<u>Calystegia collina ssp. oxyphylla</u>	Mt. Saint Helena morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	4.2		279 m	1010 m	yes	

							coniferous forest			
							• Valley and foothill grassland			
<u>Calystegia purpurata ssp. saxicola</u>	coastal bluff morning-glory	Convolvulaceae	perennial herb	(Mar)Apr-Sep	1B.2		• Coastal bluff scrub	0 m	105 m	yes
							• Coastal dunes			
							• Coastal scrub			
							• North Coast coniferous forest			
							• Bogs and fens			
							• Closed-cone coniferous forest			
<u>Campanula californica</u>	swamp harebell	Campanulaceae	perennial rhizomatous herb	Jun-Oct	1B.2		• Coastal prairie	1 m	405 m	yes
							• Meadows and seeps			
							• Marshes and swamps (freshwater)			
							• North Coast coniferous forest			
<u>Carex comosa</u>	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	2B.1		• Coastal prairie	0 m	625 m	
							• Marshes and swamps (lake margins)			
							• Valley and foothill grassland			
							• Coastal bluff scrub			
							• Coastal prairie			
<u>Castilleja ambigua var. ambigua</u>	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	4.2		• Coastal scrub	0 m	435 m	
							• Marshes and swamps			
							• Valley and foothill grassland			
							• Vernal pools margins			
<u>Castilleja uliginosa</u>	Pitkin Marsh paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Jun-Jul	1A	CE	• Marshes and swamps (freshwater)	240 m	240 m	yes
							• Closed-cone coniferous forest			
<u>Ceanothus confusus</u>	Rincon Ridge ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Jun	1B.1		• Chaparral	75 m	1065 m	yes
							• Cismontane woodland			
<u>Ceanothus diversgens</u>	Calistoga ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	1B.2		• Chaparral (serpentine or volcanic, rocky)	170 m	950 m	yes
	Vine Hill	Rhamnaceae	perennial	Mar-May	1B.1		• Chaparral	45 m	305 m	yes

<u>Ceanothus foliosus var. vineatus</u>	ceanothus		evergreen shrub										
<u>Ceanothus gloriosus var. exaltatus</u>	glory brush	Rhamnaceae	perennial evergreen shrub	Mar-Jun(Aug)	4.3				• Chaparral	30 m	610 m	yes	
<u>Ceanothus purpureus</u>	holly-leaved ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Jun	1B.2				• Chaparral • Cismontane woodland	120 m	640 m	yes	
<u>Ceanothus sonomensis</u>	Sonoma ceanothus	Rhamnaceae	perennial evergreen shrub	Feb-Apr	1B.2				• Chaparral (sandy, serpentinite or volcanic) • Chaparral • Coastal prairie • Meadows and seeps • Marshes and swamps (coastal salt) • Valley and foothill grassland (vernally mesic)	215 m	800 m	yes	
<u>Centromadia parryi ssp. parryi</u>	pappose tarplant	Asteraceae	annual herb	May-Nov	1B.2				• Marshes and swamps (coastal salt) • Valley and foothill grassland (vernally mesic)	0 m	420 m	yes	
<u>Chloropyron maritimum ssp. palustre</u>	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	1B.2				• Marshes and swamps (coastal salt) • Coastal bluff scrub	0 m	10 m		
<u>Chorizanthe cuspidata var. cuspidata</u>	San Francisco Bay spineflower	Polygonaceae	annual herb	Apr-Jul(Aug)	1B.2				• Coastal dunes • Coastal prairie • Coastal scrub	3 m	215 m	yes	
<u>Chorizanthe cuspidata var. villosa</u>	woolly-headed spineflower	Polygonaceae	annual herb	May-Jul(Aug)	1B.2				• Coastal dunes • Coastal prairie • Coastal scrub	3 m	60 m	yes	
<u>Chorizanthe valida</u>	Sonoma spineflower	Polygonaceae	annual herb	Jun-Aug	1B.1	CE	FE		• Coastal prairie (sandy) • Broadleafed upland forest	10 m	305 m	yes	
<u>Cirsium andrewsii</u>	Franciscan thistle	Asteraceae	perennial herb	Mar-Jul	1B.2				• Coastal bluff scrub • Coastal prairie • Coastal scrub • Chaparral	0 m	150 m	yes	
<u>Clarkia breweri</u>	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	4.2				• Cismontane woodland • Coastal scrub	215 m	1115 m	yes	
<u>Clarkia imbricata</u>	Vine Hill clarkia	Onagraceae	annual herb	Jun-Aug	1B.1	CE	FE		• Chaparral • Valley and foothill grassland	50 m	75 m	yes	
	serpentine	Orobanchaceae	annual herb	Jul-Aug	4.3				• Closed-	305 m	915 m	yes	

Cordylanthus tenuis ssp. brunneus	bird's-beak		(hemiparasitic)						cone coniferous forest • Chaparral • Cismontane woodland • Closed- cone coniferous forest • Chaparral			
Cordylanthus tenuis ssp. capillaris	Pennell's bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	1B.2	CR	FE		45 m	305 m	yes	
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	2B.2				• Marshes and swamps (freshwater) • Broadleafed upland forest • Cismontane woodland • Lower montane coniferous forest • North Coast coniferous forest • Broadleafed upland forest • Coastal scrub • Valley and foothill grassland • Chaparral • Coastal prairie • Coastal scrub • Broadleafed upland forest • Closed- cone coniferous forest • Chaparral • Cismontane woodland • North Coast coniferous forest • Riparian forest • Riparian woodland • Valley and foothill grassland (mesic) • Vernal pools	15 m	280 m	
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2				185 m	2225 m		
Delphinium bakeri	Baker's larkspur	Ranunculaceae	perennial herb	Mar-May	1B.1	CE	FE		80 m	305 m	yes	
Delphinium luteum	golden larkspur	Ranunculaceae	perennial herb	Mar-May	1B.1	CR	FE		0 m	100 m	yes	
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan- Mar(Apr)	1B.2				25 m	425 m	yes	
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2				1 m	445 m		
Erigeron biolettii	streamside daisy	Asteraceae	perennial herb	Jun-Oct	3				30 m	1100 m	yes	

www.rareplants.cnps.org/result.html?adv=t&quad=3812257:3812256:3812255:3812247:3812246:3812245:3812237:3812236:3812235:3812258:381... 7/14

									<ul style="list-style-type: none"> • Coastal prairie • Coastal scrub 			
<u>Horkelia tenuiloba</u>	thin-lobed horkelia	Rosaceae	perennial herb	May-Jul(Aug)	1B.2				<ul style="list-style-type: none"> • Broadleafed upland forest • Chaparral • Valley and foothill grassland 	50 m	500 m	yes
									<ul style="list-style-type: none"> • Broadleafed upland forest • Coastal bluff scrub • Closed-cone coniferous forest 			
<u>Hosackia gracilis</u>	harlequin lotus	Fabaceae	perennial rhizomatous herb	Mar-Jul	4.2				<ul style="list-style-type: none"> • Cismontane woodland • Coastal prairie • Coastal scrub • Meadows and seeps • Marshes and swamps • North Coast coniferous forest • Valley and foothill grassland 	0 m	700 m	
<u>Iris longipetala</u>	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May	4.2				<ul style="list-style-type: none"> • Coastal prairie • Lower montane coniferous forest • Meadows and seeps 	0 m	600 m	yes
<u>Kopsiopsis hookeri</u>	small groundcone	Orobanchaceae	perennial rhizomatous herb (parasitic)	Apr-Aug	2B.3				<ul style="list-style-type: none"> • North Coast coniferous forest 	90 m	885 m	
<u>Lasthenia burkei</u>	Burke's goldfields	Asteraceae	annual herb	Apr-Jun	1B.1	CE	FE		<ul style="list-style-type: none"> • Meadows and seeps (mesic) • Vernal pools • Closed-cone coniferous forest (openings) 	15 m	600 m	yes
<u>Lasthenia californica ssp. bakeri</u>	Baker's goldfields	Asteraceae	perennial herb	Apr-Oct	1B.2				<ul style="list-style-type: none"> • Coastal scrub • Meadows and seeps • Marshes and swamps 	60 m	520 m	yes
<u>Lasthenia californica ssp. macrantha</u>	perennial goldfields	Asteraceae	perennial herb	Jan-Nov	1B.2				<ul style="list-style-type: none"> • Coastal bluff scrub • Coastal dunes 	5 m	520 m	yes

<u>Lasthenia conjugens</u>	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	FE	<ul style="list-style-type: none"> • Coastal scrub • Cismontane woodland • Playas (alkaline) • Valley and foothill grassland • Vernal pools • Chaparral 	0 m	470 m	yes
<u>Layia septentrionalis</u>	Colusa layia	Asteraceae	annual herb	Apr-May	1B.2		<ul style="list-style-type: none"> • Cismontane woodland • Valley and foothill grassland 	100 m	1095 m	yes
<u>Legenere limosa</u>	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1		<ul style="list-style-type: none"> • Vernal pools • Chaparral 	1 m	880 m	yes
<u>Leptosiphon acicularis</u>	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	4.2		<ul style="list-style-type: none"> • Cismontane woodland • Coastal prairie • Valley and foothill grassland • Chaparral 	55 m	1500 m	yes
<u>Leptosiphon jepsonii</u>	Jepson's leptosiphon	Polemoniaceae	annual herb	Mar-May	1B.2		<ul style="list-style-type: none"> • Cismontane woodland • Valley and foothill grassland 	100 m	500 m	yes
<u>Leptosiphon rosaceus</u>	rose leptosiphon	Polemoniaceae	annual herb	Apr-Jul	1B.1		<ul style="list-style-type: none"> • Coastal bluff scrub 	0 m	100 m	yes
<u>Lessingia arachnoidea</u>	Crystal Springs lessingia	Asteraceae	annual herb	Jul-Oct	1B.2		<ul style="list-style-type: none"> • Cismontane woodland • Coastal scrub • Valley and foothill grassland 	60 m	200 m	yes
<u>Lessingia hololeuca</u>	woolly-headed lessingia	Asteraceae	annual herb	Jun-Oct	3		<ul style="list-style-type: none"> • Broadleafed upland forest • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland 	15 m	305 m	yes
<u>Lilium pardalinum ssp. pitkinense</u>	Pitkin Marsh lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	1B.1	CE FE	<ul style="list-style-type: none"> • Cismontane woodland • Meadows and seeps • Marshes and swamps (freshwater) 	35 m	65 m	yes
<u>Lilium rubescens</u>	redwood lily	Liliaceae	perennial bulbiferous	Apr-Aug(Sep)	4.2		<ul style="list-style-type: none"> • Broadleafed 	30 m	1910 m	yes

herb

									upland forest			
									• Chaparral			
									• Lower montane coniferous forest			
									• North Coast coniferous forest			
									• Upper montane coniferous forest			
									• Meadows and seeps			
<u>Limnanthes</u>	Sebastopol meadowfoam	Limnanthaceae	annual herb	Apr-May	1B.1	CE	FE		• Valley and foothill grassland	15 m	305 m	yes
<u>vinculans</u>									• Vernal pools			
									• Chaparral			
<u>Lomatium</u>	Napa lomatium	Apiaceae	perennial herb	Mar-Jun	4.3				• Cismontane woodland	90 m	830 m	yes
<u>repostum</u>									• Broadleafed upland forest			
									• Chaparral			
<u>Lupinus</u>	Cobb Mountain lupine	Fabaceae	perennial herb	Mar-Jun	1B.2				• Cismontane woodland	275 m	1525 m	yes
<u>sericatus</u>									• Lower montane coniferous forest			
									• Broadleafed upland forest			
									• Chaparral			
<u>Micropus</u>	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	3.2				• Cismontane woodland	45 m	825 m	yes
<u>amphibolus</u>									• Valley and foothill grassland			
									• Closed-cone coniferous forest			
									• Cismontane woodland			
<u>Microseris</u>	marsh microseris	Asteraceae	perennial herb	Apr-Jun(Jul)	1B.2				• Coastal scrub	5 m	355 m	yes
<u>paludosa</u>									• Valley and foothill grassland			
									• Broadleafed upland forest			
<u>Monardella</u>	green monardella	Lamiaceae	perennial rhizomatous herb	Jun-Sep	4.3				• Chaparral	100 m	1010 m	yes
<u>viridis</u>									• Cismontane woodland			
									• Chaparral	4 m	1830 m	yes
<u>Navarretia</u>	cotula navarretia	Polemoniaceae	annual herb	May-Jun	4.2				• Cismontane woodland			
<u>cotulifolia</u>									• Valley and			

<u>Navarretia heterandra</u>	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	4.3				foothill grassland • Valley and foothill grassland (mesic) • Vernal pools • Cismontane woodland • Lower montane coniferous forest	30 m	1010 m	
<u>Navarretia leucocephala ssp. bakeri</u>	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1				• Meadows and seeps • Valley and foothill grassland • Vernal pools	5 m	1740 m	yes
<u>Navarretia leucocephala ssp. plieantha</u>	many-flowered navarretia	Polemoniaceae	annual herb	May-Jun	1B.2	CE	FE		• Vernal pools (volcanic ash flow)	30 m	950 m	yes
<u>Penstemon newberryi var. sonomensis</u>	Sonoma beardtongue	Plantaginaceae	perennial herb	Apr-Aug	1B.3				• Chaparral (rocky)	700 m	1370 m	yes
<u>Perideridia gairdneri ssp. gairdneri</u>	Gairdner's yampah	Apiaceae	perennial herb	Jun-Oct	4.2				• Broadleafed upland forest • Chaparral • Coastal prairie • Valley and foothill grassland • Vernal pools	0 m	610 m	yes
<u>Plagiobothrys strictus</u>	Calistoga popcornflower	Boraginaceae	annual herb	Mar-Jun	1B.1	CT	FE		• Meadows and seeps • Valley and foothill grassland • Vernal pools	90 m	160 m	yes
<u>Pleuropogon hooverianus</u>	North Coast semaphore grass	Poaceae	perennial rhizomatous herb	Apr-Jun	1B.1	CT			• Broadleafed upland forest • Meadows and seeps • North Coast coniferous forest • Lower montane coniferous forest	10 m	671 m	yes
<u>Pleuropogon refractus</u>	nodding semaphore grass	Poaceae	perennial rhizomatous herb	(Mar)Apr-Aug	4.2				• Meadows and seeps • North Coast coniferous forest • Riparian forest	0 m	1600 m	
<u>Poa napensis</u>	Napa blue grass	Poaceae	perennial herb	May-Aug	1B.1	CE	FE		• Meadows and seeps	100 m	200 m	yes

						• Valley and foothill grassland			
<u>Potentilla uliginosa</u>	Cunningham Marsh cinquefoil	Rosaceae	perennial herb	May-Aug	1A	• Marshes and swamps	30 m	40 m	yes
<u>Puccinellia simplex</u>	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	• Chenopod scrub • Meadows and seeps • Valley and foothill grassland • Vernal pools	2 m	930 m	
<u>Ranunculus lobbii</u>	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	4.2	• Cismontane woodland • North Coast coniferous forest • Valley and foothill grassland • Vernal pools	15 m	470 m	
<u>Rhynchospora alba</u>	white beaked-rush	Cyperaceae	perennial rhizomatous herb	Jun-Aug	2B.2	• Bogs and fens • Meadows and seeps • Marshes and swamps (freshwater)	60 m	2040 m	
<u>Rhynchospora californica</u>	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	1B.1	• Bogs and fens • Lower montane coniferous forest • Meadows and seeps (seeps) • Marshes and swamps (freshwater)	45 m	1010 m	yes
<u>Rhynchospora capitellata</u>	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	2B.2	• Lower montane coniferous forest • Meadows and seeps • Marshes and swamps • Upper montane coniferous forest	45 m	2000 m	
<u>Rhynchospora globularis</u>	round-headed beaked-rush	Cyperaceae	perennial rhizomatous herb	Jul-Aug	2B.1	• Marshes and swamps (freshwater)	45 m	60 m	
<u>Sidalcea calycosa ssp. rhizomata</u>	Point Reyes checkerbloom	Malvaceae	perennial rhizomatous herb	Apr-Sep	1B.2	• Marshes and swamps (freshwater, near coast)	3 m	75 m	yes
<u>Sidalcea hickmanii ssp. napensis</u>	Napa checkerbloom	Malvaceae	perennial herb	Apr-Jun	1B.1	• Chaparral	415 m	610 m	yes
	purple-	Malvaceae	perennial	May-Jun	1B.2	•	15 m	85 m	yes

<u>Sidalcea malviflora ssp. purpurea</u>	stemmed checkerbloom		rhizomatous herb					Broadleafed upland forest • Coastal prairie			
<u>Sidalcea oregana ssp. valida</u>	Kenwood Marsh checkerbloom	Malvaceae	perennial rhizomatous herb	Jun-Sep	1B.1	CE	FE	• Marshes and swamps (freshwater)	115 m	150 m	yes
<u>Silene scouleri ssp. scouleri</u>	Scouler's catchfly	Caryophyllaceae	perennial herb	(Mar-May)Jun-Aug(Sep)	2B.2			• Coastal bluff scrub • Coastal prairie • Valley and foothill grassland	0 m	600 m	
<u>Spergularia macrotheca var. longistyla</u>	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May(Jun)	1B.2			• Meadows and seeps • Marshes and swamps	0 m	255 m	yes
<u>Thamnomia vermicularis</u>	whiteworm lichen	Imadophilaceae	fruticose lichen (terricolous)		2B.1			• Chaparral • Valley and foothill grassland	90 m	90 m	
<u>Trifolium amoenum</u>	two-fork clover	Fabaceae	annual herb	Apr-Jun	1B.1		FE	• Coastal bluff scrub • Valley and foothill grassland (sometimes serpentine)	5 m	415 m	yes
<u>Trifolium buckwestiorum</u>	Santa Cruz clover	Fabaceae	annual herb	Apr-Oct	1B.1			• Broadleafed upland forest • Cismontane woodland • Coastal prairie	105 m	610 m	yes
<u>Trifolium hydrophilum</u>	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2			• Marshes and swamps • Valley and foothill grassland (mesic, alkaline) • Vernal pools	0 m	300 m	yes
<u>Triphysaria floribunda</u>	San Francisco owl's-clover	Orobanchaceae	annual herb	Apr-Jun	1B.2			• Coastal prairie • Coastal scrub • Valley and foothill grassland	10 m	160 m	yes
<u>Triquetrella californica</u>	coastal triquetrella	Pottiaceae	moss		1B.2			• Coastal bluff scrub • Coastal scrub	10 m	100 m	
<u>Usnea longissima</u>	Methuselah's beard lichen	Parmeliaceae	fruticose lichen (epiphytic)		4.2			• Broadleafed upland forest • North Coast coniferous forest	50 m	1460 m	
<u>Viburnum ellipticum</u>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3			• Chaparral • Cismontane woodland • Lower	215 m	1400 m	

montane
coniferous
forest

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 25 March 2020].

Search the Inventory[Simple Search](#)[Advanced Search](#)[Glossary](#)**Information**[About the Inventory](#)[About the Rare Plant Program](#)[CNPS Home Page](#)[About CNPS](#)[Join CNPS](#)**Contributors**[The Calflora Database](#)[The California Lichen Society](#)[California Natural Diversity Database](#)[The Jepson Flora Project](#)[The Consortium of California Herbaria](#)[CalPhotos](#)**Questions and Comments**rareplants@cnps.org

© Copyright 2010-2018 California Native Plant Society. All rights reserved.



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Healdsburg (3812257) OR Mark West Springs (3812256) OR Calistoga (3812255) OR Sebastopol (3812247) OR Santa Rosa (3812246) OR Kenwood (3812245) OR Two Rock (3812237) OR Cotati (3812236) OR Glen Ellen (3812235) OR Guerneville (3812258) OR Camp Meeker (3812248) OR Valley Ford (3812238))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Accipiter striatus</i> sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Agrostis blasdalei</i> Blasdale's bent grass	PMPOA04060	None	None	G2	S2	1B.2
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	PMLIL021R1	None	None	G5T2	S2	1B.2
<i>Alopecurus aequalis</i> var. <i>sonomensis</i> Sonoma alopecurus	PMPOA07012	Endangered	None	G5T1	S1	1B.1
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	PDFAB08012	None	None	G4T2	S2	1B.2
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
<i>Anodonta californiensis</i> California floater	IMBIV04020	None	None	G3Q	S2?	
<i>Anodonta oregonensis</i> Oregon floater	IMBIV04110	None	None	G5Q	S2?	
<i>Anomobryum julaceum</i> slender silver moss	NBMUS80010	None	None	G5?	S2	4.2
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Arborimus pomo</i> Sonoma tree vole	AMAFF23030	None	None	G3	S3	SSC
<i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i> Baker's manzanita	PDERI04221	None	Rare	G2T1	S1	1B.1



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Arctostaphylos bakeri</i> ssp. <i>sublaevis</i> The Cedars manzanita	PDERI04222	None	Rare	G2T2	S2	1B.2
<i>Arctostaphylos densiflora</i> Vine Hill manzanita	PDERI040C0	None	Endangered	G1	S1	1B.1
<i>Arctostaphylos stanfordiana</i> ssp. <i>decumbens</i> Rincon Ridge manzanita	PDERI041G4	None	None	G3T1	S1	1B.1
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus claranus</i> Clara Hunt's milk-vetch	PDFAB0F240	Endangered	Threatened	G1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Blennosperma bakeri</i> Sonoma sunshine	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Brodiaea leptandra</i> narrow-anthered brodiaea	PMLIL0C022	None	None	G3?	S3?	1B.2
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Caecidotea tomalensis</i> Tomales isopod	ICMAL01220	None	None	G2	S2S3	
<i>Calamagrostis crassiglumis</i> Thurber's reed grass	PMPOA17070	None	None	G3Q	S2	2B.1
<i>Callophrys mossii marinensis</i> Marin elfin butterfly	IILEPE2207	None	None	G4T1	S1	
<i>Calochortus raichei</i> The Cedars fairy-lantern	PMLIL0D1L0	None	None	G2	S2	1B.2
<i>Calystegia collina</i> ssp. <i>oxyphylla</i> Mt. Saint Helena morning-glory	PDCON04032	None	None	G4T3	S3	4.2
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> coastal bluff morning-glory	PDCON040D2	None	None	G4T2T3	S2S3	1B.2
<i>Campanula californica</i> swamp harebell	PDCAM02060	None	None	G3	S3	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Castilleja uliginosa Pitkin Marsh paintbrush	PDSCR0D380	None	Endangered	GXQ	SX	1A
Ceanothus confusus Rincon Ridge ceanothus	PDRHA04220	None	None	G1	S1	1B.1
Ceanothus divergens Calistoga ceanothus	PDRHA04240	None	None	G2	S2	1B.2
Ceanothus foliosus var. vineatus Vine Hill ceanothus	PDRHA040D6	None	None	G3T1	S1	1B.1
Ceanothus purpureus holly-leaved ceanothus	PDRHA04160	None	None	G2	S2	1B.2
Ceanothus sonomensis Sonoma ceanothus	PDRHA04420	None	None	G2	S2	1B.2
Centromadia parryi ssp. parryi pappose tarplant	PDAST4R0P2	None	None	G3T2	S2	1B.2
Chorizanthe cuspidata var. villosa woolly-headed spineflower	PDPGN04082	None	None	G2T2	S2	1B.2
Chorizanthe valida Sonoma spineflower	PDPGN040V0	Endangered	Endangered	G1	S1	1B.1
Cirsium andrewsii Franciscan thistle	PDAST2E050	None	None	G3	S3	1B.2
Clarkia imbricata Vine Hill clarkia	PDONA050K0	Endangered	Endangered	G1	S1	1B.1
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Coastal Brackish Marsh Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Cordylanthus tenuis ssp. capillaris Pennell's bird's-beak	PDSCR0J0S2	Endangered	Rare	G4G5T1	S1	1B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Cuscuta obtusiflora var. glandulosa Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
<i>Delphinium bakeri</i> Baker's larkspur	PDRAN0B050	Endangered	Endangered	G1	S1	1B.1
<i>Delphinium luteum</i> golden larkspur	PDRAN0B0Z0	Endangered	Rare	G1	S1	1B.1
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
<i>Dirca occidentalis</i> western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Dubiraphia giulianii</i> Giuliani's dubiraphian riffle beetle	IICOL5A020	None	None	G1G3	S1S3	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eremophila alpestris actia</i> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Erigeron greenei</i> Greene's narrow-leaved daisy	PDAST3M5G0	None	None	G3	S3	1B.2
<i>Erigeron serpentinus</i> serpentine daisy	PDAST3M5M0	None	None	G2	S2	1B.3
<i>Eryngium constancei</i> Loch Lomond button-celery	PDAP10Z0W0	Endangered	Endangered	G1	S1	1B.1
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Gilia capitata ssp. chamissonis</i> blue coast gilia	PDPLM040B3	None	None	G5T2	S2	1B.1
<i>Gilia capitata ssp. tomentosa</i> woolly-headed gilia	PDPLM040B9	None	None	G5T1	S1	1B.1
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
<i>Hemizonia congesta ssp. congesta</i> congested-headed hayfield tarplant	PDAST4R065	None	None	G5T2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Hesperexax sparsiflora var. brevifolia</i> short-leaved exax	PDASTE5011	None	None	G4T3	S2	1B.2
<i>Horkelia marinensis</i> Point Reyes horkelia	PDROS0W0B0	None	None	G2	S2	1B.2
<i>Horkelia tenuiloba</i> thin-lobed horkelia	PDROS0W0E0	None	None	G2	S2	1B.2
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Hydroporus leechi</i> Leech's skyline diving beetle	IICOL55040	None	None	G1?	S1?	
<i>Hysteroecarpus traskii pomo</i> Russian River tule perch	AFCQK02011	None	None	G5T4	S4	SSC
<i>Kopsiopsis hookeri</i> small groundcone	PDORO01010	None	None	G4?	S1S2	2B.3
<i>Lasiurus blossevillei</i> western red bat	AMACC05060	None	None	G5	S3	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Lasthenia burkei</i> Burke's goldfields	PDAST5L010	Endangered	Endangered	G1	S1	1B.1
<i>Lasthenia californica ssp. bakeri</i> Baker's goldfields	PDAST5L0C4	None	None	G3T1	S1	1B.2
<i>Lasthenia californica ssp. macrantha</i> perennial goldfields	PDAST5L0C5	None	None	G3T2	S2	1B.2
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Lavinia symmetricus navarroensis</i> Navarro roach	AFCJB19023	None	None	G4T1T2	S2S3	SSC
<i>Layia septentrionalis</i> Colusa layia	PDAST5N0F0	None	None	G2	S2	1B.2
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Leptosiphon jepsonii</i> Jepson's leptosiphon	PDPLM09140	None	None	G2G3	S2S3	1B.2
<i>Leptosiphon rosaceus</i> rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
<i>Lessingia arachnoidea</i> Crystal Springs lessingia	PDAST5S0C0	None	None	G2	S2	1B.2
<i>Lichnanthe ursina</i> bumblebee scarab beetle	IICOL67020	None	None	G2	S2	
<i>Lilium pardalinum ssp. pitkinense</i> Pitkin Marsh lily	PMLIL1A0H3	Endangered	Endangered	G5T1	S1	1B.1



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Limnanthes vinculans</i> Sebastopol meadowfoam	PDLIM02090	Endangered	Endangered	G1	S1	1B.1
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Lupinus sericatus</i> Cobb Mountain lupine	PDFAB2B3J0	None	None	G2?	S2?	1B.2
<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<i>Myotis thysanodes</i> fringed myotis	AMACC01090	None	None	G4	S3	
<i>Myotis volans</i> long-legged myotis	AMACC01110	None	None	G5	S3	
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
<i>Navarretia leucocephala ssp. plieantha</i> many-flowered navarretia	PDPLM0C0E5	Endangered	Endangered	G4T1	S1	1B.2
<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<i>Northern Vernal Pool</i> Northern Vernal Pool	CTT44100CA	None	None	G2	S2.1	
<i>Oncorhynchus kisutch pop. 4</i> coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	G4	S2?	
<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
<i>Pandion haliaetus</i> osprey	ABNKC01010	None	None	G5	S4	WL
<i>Pelecanus occidentalis californicus</i> California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP
<i>Penstemon newberryi var. sonomensis</i> Sonoma beardtongue	PDSCR1L483	None	None	G4T2	S2	1B.3
<i>Piperia candida</i> white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
<i>Plagiobothrys strictus</i> Calistoga popcornflower	PDBOR0V120	Endangered	Threatened	G1	S1	1B.1
<i>Pleuropogon hooverianus</i> North Coast semaphore grass	PMPOA4Y070	None	Threatened	G2	S2	1B.1
<i>Poa napensis</i> Napa blue grass	PMPOA4Z1R0	Endangered	Endangered	G1	S1	1B.1
<i>Potentilla uliginosa</i> Cunningham Marsh cinquefoil	PDROS1B4A0	None	None	GH	SH	1A



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Rhynchospora alba</i> white beaked-rush	PMCYP0N010	None	None	G5	S2	2B.2
<i>Rhynchospora californica</i> California beaked-rush	PMCYP0N060	None	None	G1	S1	1B.1
<i>Rhynchospora capitellata</i> brownish beaked-rush	PMCYP0N080	None	None	G5	S1	2B.2
<i>Rhynchospora globularis</i> round-headed beaked-rush	PMCYP0N0W0	None	None	G4	S1	2B.1
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sidalcea calycosa ssp. rhizomata</i> Point Reyes checkerbloom	PDMAL11012	None	None	G5T2	S2	1B.2
<i>Sidalcea hickmanii ssp. napensis</i> Napa checkerbloom	PDMAL110A6	None	None	G3T1	S1	1B.1
<i>Sidalcea malviflora ssp. purpurea</i> purple-stemmed checkerbloom	PDMAL110FL	None	None	G5T1	S1	1B.2
<i>Sidalcea oregana ssp. valida</i> Kenwood Marsh checkerbloom	PDMAL110K5	Endangered	Endangered	G5T1	S1	1B.1
<i>Silene scouleri ssp. scouleri</i> Scouler's catchfly	PDCAR0U1MC	None	None	G5T4T5	S2S3	2B.2
<i>Spergularia macrotheca var. longistyla</i> long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
<i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly	IILEPJ608C	Endangered	None	G5T1	S1	
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
<i>Syncaris pacifica</i> California freshwater shrimp	ICMAL27010	Endangered	Endangered	G2	S2	
<i>Taricha rivularis</i> red-bellied newt	AAAAF02020	None	None	G4	S2	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnia vermicularis</i> whiteworm lichen	NLTES43860	None	None	G5	S1	2B.1
<i>Trifolium amoenum</i> two-fork clover	PDFAB40040	Endangered	None	G1	S1	1B.1



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Trifolium buckwestiorum</i> Santa Cruz clover	PDFAB402W0	None	None	G2	S2	1B.1
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Triphysaria floribunda</i> San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
<i>Triquetrella californica</i> coastal triquetrella	NBMUS7S010	None	None	G2	S2	1B.2
<i>Usnea longissima</i> Methuselah's beard lichen	NLLEC5P420	None	None	G4	S4	4.2
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
<i>Vespericola marinensis</i> Marin hesperian	IMGASA4140	None	None	G2	S2	
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 152

From: Owens, Stephanie
Sent: Monday, June 1, 2020 3:18 PM
To: 'nmfswcrca.specieslist@noaa.gov'
Subject: Request official list-Caltrans EA 0K520 Sonoma 12 Capitol Preventative Maintenance Project

Hello,

My name is Stephanie Owens and I am a biologist with Jacobs Engineering in Oakland, CA.

I am requesting an official species list for the following project: Caltrans EA 0K520, Sonoma 12 Capitol Preventative Maintenance Project. Below my contact information, you will find the results.

Agency Name and Address:

California Department of Transportation, District 4
111 Grand Ave.
Oakland, CA 94612

Mailing Address:

California Department of Transportation
District 4
P.O. Box 236600
Oakland, CA 94623-0660

Point of Contact:

Stephanie Owens, M.S.
Jacobs
Biologist | Global Environmental Solutions
+ 1.408.627.9522 mobile
stephanie.owens@jacobs.com
www.jacobs.com

Quad Name **Santa Rosa**

Quad Number **38122-D6**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

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

CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

ESA Pinnipeds

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

Essential Fish Habitat

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

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

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

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Sebastopol**
Quad Number **38122-D7**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

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

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

ESA Pinnipeds

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

Essential Fish Habitat

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

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

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

MMPA Cetaceans -
MMPA Pinnipeds -

From: NMFSWCRCA Specieslist - NOAA Service Account
<nmfswcrca.specieslist+canned.response@noaa.gov>
Sent: Monday, June 1, 2020 3:18 PM
To: prvs=4421159b51=stephanie.owens@jacobs.com
Subject: [EXTERNAL] Re: Request official list-Caltrans EA 0K520 Sonoma 12 Capitol Preventative Maintenance Project

Receipt of this message confirms that NMFS has received your email to nmfswcrca.specieslist@noaa.gov. If you are a federal agency (or representative) and have followed the steps outlined on the California Species List Tools web page (http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html), you have generated an official Endangered Species Act species list.

Messages sent to this email address are not responded to directly. For project specific questions, please contact your local NMFS office.

Northern California/Klamath (Arcata) 707-822-7201

North-Central Coast (Santa Rosa) 707-387-0737

Southern California (Long Beach) 562-980-4000

California Central Valley (Sacramento) 916-930-3600

Appendix F Responses to Comments: Individuals

Comment IND_Raymond, Mike, page 1 of 1

From: Mike Raymond [REDACTED]
Sent: Wednesday, January 29, 2020, 2:43 PM
To: MacCarthy, Arnica@DOT
Subject: IS-MND State Route (SR)12 CalTrans District 4

CAUTION: External email. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Arnica MacCarthy

1 | Something also needs to be done at the east bound Hi-way 12 and Farmers lane intersection to improve traffic, before Santa Rosa increases the density along the Hi Way 12 Corridor. The LOS at the east bound intersection of Hi-Wy 12 and Farmers continues to increase above acceptable levels. The traffic continues to grown on Farmers lane, Hoen Ave, Sonoma Ave, Montgomery Dr and Summerfield Rd as commuters are developing alternate routes for Farmer's lane.

2 | This will add more traffic to the all ready impacted East Bound Hi Way 12 at Farmers Lane intersection (23,500 cars). Several communities were built on the east side of the highway 12, Corridor Skyhawk community, Oak mount, Melina, Stonegate, Prospect Apartments, Santa
3 | Rosa Garden Apartments, and Acacia Creek Apartments without improvement to the East bound Hi way 12 Traffic at Farmers Lane.

This project will add to the Greenway project EIR resolution section 2 page 4 of 146 there are significant issues: 3 Air Quality Impacts and 6 Transportation and Circulation Impacts with South east Greenway plan.

4 | Impact AQ - 2: operation of the proposed project could contribute to an existing or projected air quality violation.

Impact AQ – 3 Future potential development projects associated with the proposed project could cumulatively contribute to the non-attainment designations of the San Francisco Bay Area Air basin.

Impact QA – 6 despite implementation of the proposed project policies criteria air pollution emissions associated with the proposed project could generate a substantial net increase in the emissions that exceeds the Bay Area Air quality management District regional significant thresholds.

6 transportation

5 | Impact Trans -1a LOS the Farmers Lane / Highway 12 East bound off-ramp-Hoen Avenue frontage road intersection currently operates unacceptably at level of service E during the PM peak hour and is projected to continue operating at LOS E upon the addition of project-generated traffic, with increase in delay. of E During the peak p.m. hour and is projected to continue operating capital LOS level E upon the additional project generated traffic with increases in the delay of traffic.

6 | Intersection improvement (overpass) is needed at East bound Hi-way 12, Farmers Lane.

Mike Raymond
[REDACTED]

Response to Comment IND_Raymond, Mike

Response to Comment 1: Need to Improve Traffic at State Route 12 and Farmers Lane Intersection

Caltrans acknowledges the commenter's traffic concerns along SR 12 at intersections adjacent to the Project limits. The purpose of this Project is to extend the life of the existing pavement, improve the ride quality, and bring select curb ramps up to Americans with Disabilities Act (ADA) standards within the Project limits along SR 12, and would not increase the capacity of SR 12 or directly increase vehicle miles traveled on this highway. The suggested improvements to SR 12 are outside the Project limits as well as the scope of this Project. Revisions to the IS-MND are not required.

Response to Comment 2: State Route 12 Capital Preventive Maintenance Project Will Increase Traffic

Caltrans acknowledges the commenter's congestion concerns on SR 12. As noted in the Transportation and Traffic subsection of Chapter 3 of the IS-MND, the Project would cause short-term localized traffic congestion and delays due to lane and shoulder closures. Lane closures would occur throughout construction, primarily during nighttime hours. Implementation of Feature TRA-1, Traffic Management Plan would minimize congestion during construction, as well as outline public outreach strategies. Once completed, the Project would not directly or indirectly cause an increase in vehicle miles travelled on SR 12 because it is not increasing capacity of SR 12. Revisions to the IS-MND are not required.

Response to Comment 3: Development Impacts to Traffic at State Route 12 and Farmers Lane

Caltrans understands that several communities were built on the east side of SR 12. Caltrans does not have jurisdiction over land use developments within city or county jurisdictions. The developments of the east side of SR 12 would have undergone a separate environmental analysis with the city or county as the lead agency. As required by CEQA, each project must consider impacts to traffic and transportation, and thus, the developments east of SR 12 would have taken into consideration the impacts on SR 12. This Project does not propose the development of new housing or communities that would induce additional congestion on SR 12. Revisions to the IS-MND are not required.

Response to Comment 4: Greenway Project EIR – Air Quality

Caltrans acknowledges the commenter's concern regarding air quality impacts. The impact analysis in the Air Quality subsection of Chapter 3 of the IS-MND determined that the Project would result in a less than significant cumulative net increase in any criteria pollutant. Per 40 Code of Federal Regulations (CFR) 93.126, which covers pavement resurfacing and rehabilitation projects, the Project is exempt from the requirement to determine air quality conformity.

The Project does not propose to increase highway capacity; therefore, it would not contribute to a cumulative impact to non-attainment designations. The Project would not conflict with an existing air quality plan. In addition, the Air Quality subsection in Chapter 3 states that air pollutant emissions during construction would be short-term and would be reduced with the implementation of Project Features AIR-1 through AIR-4 to less than significant. Revisions to the IS-MND are not required.

Response to Comment 5: Greenway Project Transportation

Caltrans acknowledges the commenter's concern with congestion. While the Project would result in temporary traffic delays during construction, the Project would not directly or indirectly induce growth that exacerbates congestion in the area. Revisions to the IS-MND are not required.

Response to Comment 6: Need to Improve State Route 12 and Farmers Lane Intersection

Caltrans understands the commenter's suggestion that improvements to the intersection of eastbound SR 12 and Farmers Lane are needed. As discussed in the Response to Comment #1, the purpose of this Project is to extend the life of the existing pavement, improve the ride quality, and bring select curb ramps up to ADA standards along this segment of SR 12, so building an overpass at this intersection is outside of the Project scope. Revisions to the IS-MND are not required.

Appendix G Biological Opinion



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846



In Reply Refer to:
08ESMF00-
2020-F-0265-1

April 17, 2020

Ms. Cristin Hallissy
California Department of Transportation
Environmental Division, MS-8E
111 Grand Avenue
Oakland, California 94612
cristin.hallissy@dot.ca.gov

Subject: Formal Consultation on the State Route 12 Capital Preventive Maintenance Project, Sonoma County, California (Caltrans EA 04-0K520)

Dear Ms. Hallissy:

This letter is in response to the California Department of Transportation's (Caltrans) February 24, 2020, request to initiate formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed State Route (SR) 12 Capital Preventive Maintenance (CAPM) Project in Sonoma County, California. Henceforth, the project will be referred to as the "proposed project". Your request was received by the Service on February 26, 2020. At issue are the proposed project's effects on the federally endangered Sonoma Distinct Population Segment (DPS) of the California tiger salamander (*Ambystoma californiense*; Sonoma California tiger salamander) and its critical habitat. This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.)(Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

Fixing America's Surface Transportation Act (FAST Act) was signed into law on December 4, 2015. Providing funding from 2016 to 2020, the FAST Act includes provisions to promote streamlined and accelerated project delivery. Caltrans is approved to participate in the FAST Act project delivery program through the National Environmental Policy Act (NEPA) Assignment Memorandum of Understanding (MOU). The MOU allows Caltrans to assume the Federal Highway Administration's (FHWA) responsibilities under NEPA as well as FHWA's consultation and coordination responsibilities under federal environmental laws for most highway projects in California. Caltrans is exercising this authority as the federal nexus for section 7 consultation under the Act on the proposed project.

The federal action we are consulting on includes the resurfacing of approximately 6.4 linear miles of SR 12 between the cities of Sebastopol and Santa Rosa, along with upgrading curb ramps and crosswalks, replacing concrete approach slabs, upgrading existing guardrails, and reconstructing drainage infrastructure. You submitted a February 2020 Biological Assessment (BA) for our review and requested concurrence with the findings presented therein. These findings conclude that the proposed project may affect and is likely to adversely affect the Sonoma California tiger salamander and is not likely to adversely affect critical habitat for the Sonoma California tiger salamander.

In considering your request, we based our evaluation on the following: (1) Caltrans' February 24, 2020, request for consultation and a February 2020 BA (Caltrans 2020); (2) Caltrans' March 30, 2020 electronic mail (e-mail) message response to our March 4, 2020 e-mail message; (3) information provided by Caltrans on April 8, 2020; (4) the *Santa Rosa Plain Conservation Strategy* (SRPCS) (Conservation Strategy Team 2005), (5) the November 9, 2007, *Programmatic Biological Opinion for Corps Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California* (Service File Number 81420-2008-F-0261)(Service 2007); (6) the *Recovery Plan for the Santa Rosa Plain* (Service 2016); (7) other consultations completed by the Service within the Santa Rosa Plain; (8) relevant life history information for the subject species; and (9) other information available to the Service.

The Service concurs with Caltrans' determination that the proposed project is not likely to adversely affect designated critical habitat for the Sonoma California tiger salamander. A single unit was designated as critical habitat for the Sonoma California tiger salamander (Service 2011). The Santa Rosa Plains Unit is located in Central Sonoma County and is comprised of approximately 47,383 acres. Urbanized areas are generally excluded from the designation. Approximately 27.2 acres of the proposed project footprint is located within the Santa Rosa Plain Unit 1. The primary constituent elements (PCEs) for the species are: standing bodies of fresh water that hold water for a sufficient length of time necessary for the species to complete the aquatic portion of its life cycle (PCE 1), upland habitats adjacent to and accessible from breeding ponds that contain small mammal burrows or other underground refugia (PCE 2), and accessible upland dispersal habitat between locations occupied by the species that allow for movement between such sites (PCE 3). The majority of the area occupied by the proposed project footprint is characterized as hardscape roadway, a gravel-backed shoulder, and a maintained landscape right-of-way (ROW). According to Caltrans' calculations, the proposed project will result in the temporary ground disturbance of approximately 0.19 acre of landscape within the critical habitat unit with the proposed establishment and use of a staging area at the Llano Road intersection. The physical and temporal extent of the associated effects will not eliminate or impair the function of upland and dispersal habitat within the unit at a biologically meaningful scale for the listed salamander. Therefore, the effects of the proposed project on Sonoma California tiger salamander critical habitat would be insignificant and discountable.

In their project description, Caltrans states that some construction activities will occur during the typical nesting season for a variety of species protected under the *Migratory Bird Treaty Act*. Caltrans has proposed conservation measures to identify active nests and create appropriate disturbance buffers around them. Breeding birds are often secretive near their nests, and nest sites are often inconspicuous and difficult to find. Effective discovery and avoidance is difficult to assure even under the direction of an experienced and skilled field biologist. The Service notes that "take" is not being issued for migratory birds for the proposed project, and we recommend Caltrans consult with the *Region 8 Migratory Bird Program*.

The remainder of this document provides our biological opinion on the effects of the proposed project on the Sonoma California tiger salamander. "Agency-Approved" is used throughout this document to refer to common approval with the Service and the California Department of Fish and Wildlife (CDFW).

Consultation History

November 26, 2019 The Service visited the proposed action area with Caltrans Biology Department and the CDFW Transportation Liaison as an introduction to the proposed project and to provide technical assistance.

February 26, 2020	The Service received Caltrans' February 24, 2020, request for consultation along with a February 2020 BA.
March 4, 2020	The Service sent Caltrans a request for additional information based on our review of the February 2020 BA. The e-mail message served as the equivalent of a 30-day letter.
March 30, 2020	The Service received an e-mail message from Caltrans providing additional information in response to our March 4, 2020, request.
April 7, 2020	The Service received additional project description information from Caltrans needed to complete the consultation.

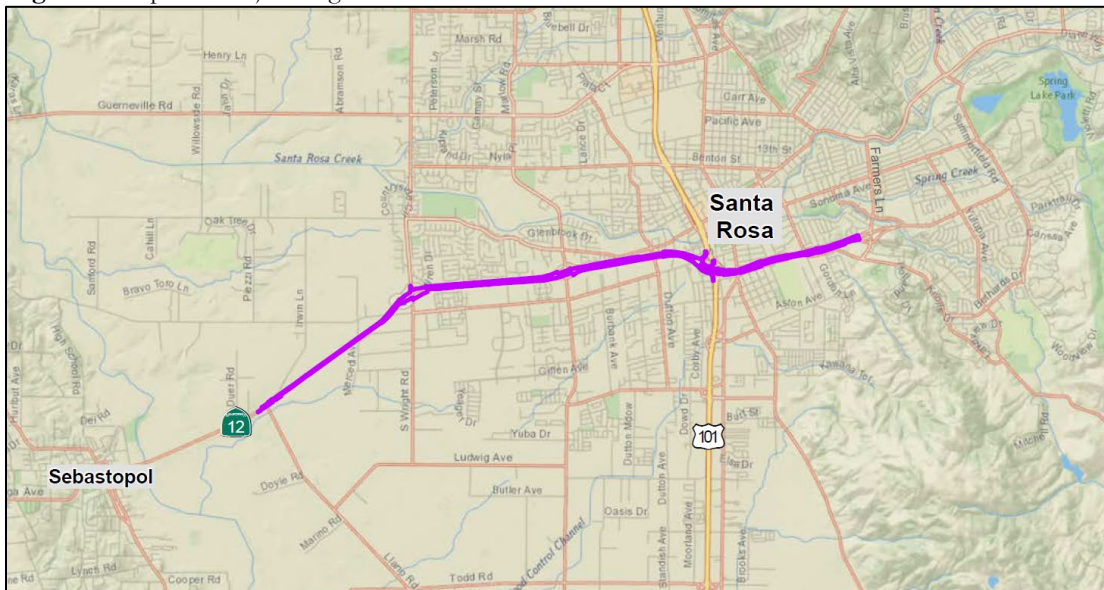
BIOLOGICAL OPINION

Description of the Proposed Action

According to Caltrans' February 2020 BA, the primary purpose of the proposed project is to extend the life of the existing pavement, improve ride quality, and bring select curb ramps up to *Americans with Disabilities Act* (ADA) standards. The proposed project will also comply with the *Transportation Asset Management Plan* policy which requires Caltrans assets within the limits of a project such as curb ramps, drainage systems, guardrails, and electrical signals to be up to current standards.

The proposed project limits include the existing pavement, shoulders, guardrails, and curbs of SR 12, between Llano Road (Post Mile (PM) 11.0) and Farmers Lane (PM 17.4). In addition, infrastructure improvements are proposed at the U.S. Highway 101 (U.S. 101) and SR 12 interchange. Work at the interchange includes modifications to the U.S. 101 on-ramp to westbound SR 12, and along the eastbound SR 12 to southbound U.S. 101 on-ramp from the end of the existing retaining wall to the existing sound wall. The alignment is shown in Figure 1, as presented in the February 2020 BA (Caltrans 2020).

Figure 1. Proposed Project Alignment.



Caltrans plans to resurface the approximately 6.4-mile length of the SR 12 alignment's existing pavement, including the shoulders. Work on paved surfaces will also include installation of rumble strips at the centerline and shoulder, as well as reconstructing loop detectors, upgrading electrical signals at intersections, and rebuilding 5 feet of shoulder backing. Rebuilding shoulder backing will require up to 7 feet of work space from the edge of pavement during construction. Work will also include upgrading four curb ramps at the SR 12/Fulton Road intersection and two crosswalks at the SR 12/Llano Road intersection to meet ADA standards, replacing up to 38 existing concrete approach slabs with 1.25-foot thick new slabs, reconstructing drainage infrastructure, and upgrading up to 10,000 linear feet of the existing metal beam guardrail (MBGR) to Midwest Guardrail System. At bridge transition railings, the MBGR connections to bridge railings will be replaced with current standard bridge railing transition and concrete anchor blocks. Improvements will also be made to bicycle lane striping at the Fulton Road and SR 12 intersection. The shoulder of the connector between southbound U.S. 101 and westbound SR 12 will be widened to approximately 10 feet and require the removal of approximately 7 to 10 landscape trees. Drainage improvements will be completed along the eastbound SR 12 to southbound U.S. 101 connector and the southbound U.S. 101 to westbound SR 12 connector.

Inlets and pipes will be added to the drainage system along eastbound SR 12 to southbound U.S. 101 connector. On the outside shoulder, an approximately 300-foot long dike will be constructed from the end of the existing retaining wall to the existing sound wall. The area between the sound wall and the travel lane will be re-graded for proper drainage. Outdated pipes and flared end sections will be removed.

The existing curb between southbound U.S. 101 and the westbound SR 12 connector, will be replaced with an 8 to 10-foot wide shoulder. A dike will be constructed in the associated area to allow sheet flow off the pavement. Inlets with down drains and/or hot mix asphalt over-side drains will be added as needed.

Site Preparation. The following site preparation activities will be conducted prior to ground disturbing activities to protect sensitive biological resources.

Exclusion Fencing. Before ground disturbance activities commence, high-visibility wildlife exclusion fencing (suitable for amphibian exclusion) will be installed at identified locations. The final project plans will outline how the fencing will be installed. The bid solicitation package special provisions will specify acceptable fencing material.

Vegetation Removal. Vegetation clearing and grubbing will occur in the work areas needed to replace MBGR and failed down drains, to rebuild shoulder backing, and to complete 10 feet of shoulder widening between southbound U.S. 101 and westbound SR 12.

Native vegetation will be cleared only when necessary and will be cut above soil level except in areas that will be excavated. This will allow plants that reproduce vegetatively to resprout later in areas of temporary ground disturbance.

Site Clean-up, Restoration, and Mitigation. Temporarily disturbed areas and staging areas will be cleaned up and recontoured to original grade or designed contours wherever feasible. Permanent erosion control, including soil stabilization measures such as hydroseeding and coir netting, will be applied to all temporarily affected areas to minimize erosion after construction. All construction-related materials, including Environmentally Sensitive Area fencing and exclusion fencing, will be removed after construction, site clean-up, and restoration activities are complete.

Vegetation removed due to the proposed project will be replaced according to Caltrans policy. Appropriate native species will be used to the maximum extent possible. Groundcover will be selected for drought tolerance and disease resistance.

All areas that are temporarily affected during construction will be revegetated with an assemblage of native vegetation suitable for the area. Invasive, exotic plants will be controlled within the project footprint to the maximum extent practicable, pursuant to Executive Order 13112.

Access and Staging

Access will be gained directly from SR 12, and staging will be located along the SR 12 shoulder, existing pullouts, and within a combined 0.84-acre collection of staging areas (0.28, 0.34, and 0.22-acre locations) within the SR 12 ROW at the Fulton Road intersection.

Equipment

Standard equipment will likely be used for construction such as excavators, backhoes, dump trucks, concrete pumps, jackhammers, ready mix trucks, saw cutting machines, loaders, forklifts, rollers, pavers, sweepers, trenchers, water trucks, and flatbeds.

Scheduling

Construction is anticipated to require two construction seasons, beginning in the summer of 2022 and ending in the winter of 2023. The project will require approximately 220 working days to complete, weather permitting. The duration of work in any given area will be up to two weeks.

Nighttime work will be included.

Construction will be completed in the following three phases.

1. The first phase of construction will involve installation of construction area signs, traffic control systems, environmentally sensitive area (ESA) fencing, temporary K-rail, and crash cushions, as well as clearing and grubbing. The first phase will take approximately 20 working days to complete.
2. The second phase will involve removing existing features (guardrails, asphalt, concrete approach slabs, pavement striping, etc.), resurfacing the roadway, rebuilding shoulder backing, installing rumble strips, construction of drainage improvements, upgrading the existing curb ramps, installing the new guardrail system, construction of 38 approach concrete slabs, electrical work, bicycle lane improvements, and striping. The second phase will take approximately 180 working days to complete, with some potential overlap between the phases.
3. The third phase will take approximately 20 working days to complete and will entail removing all construction equipment and materials from the project limits, installing permanent erosion control measures, and restoring the construction area to its preconstruction condition.

Habitat Compensation

The proposed staging area for the project is within an area mapped in the SRPCS as being within 1.3 miles of a known Sonoma California tiger salamander breeding site. Following SRPCS guidance, Caltrans will compensate at 2:1 for disturbance of 0.19 acre by purchasing 0.38 acre of Agency-Approved conservation banking credits for the Sonoma California tiger salamander. Caltrans will

purchase the banking credits and provide documentation of such to the Service prior to ground-breaking on the proposed project.

Conservation Measures

Caltrans proposes to reduce adverse effects to the Sonoma California tiger salamander, migratory birds, other wildlife, and associated ecosystem processes by implementing the following measures summarized in Table 1, which Caltrans refers to as “Project Features”.

Table 1. Project Feature Summary

Resource Area	Project Feature Reference	Project Feature
Aesthetics	AES-1	Vegetation Protection. Existing trees and vegetation will be preserved to the extent feasible, aside from landscape trees already determined to be removed. Trees and vegetation outside of clearing and grubbing limits will be protected from the contractor’s operations, equipment, and materials storage. Tree trimming and pruning, where required, will be under the direction of a biologist.
Biological Resources – Natural Communities	BIO-1	Designated Construction Areas, Delineated Environmentally Sensitive Areas (ESAs), Work Areas, and Equipment and Materials Storage Sites. Caltrans will delineate construction areas and ESAs (areas containing sensitive habitats adjacent to or within the Project limits for which physical disturbance is not allowed) on the final construction plans. The Agency-Approved Biological Monitor will be onsite to direct the installation of ESA fencing, flagging, or other approved means of delineation prior to the start of construction, to prevent encroachment of personnel and equipment into sensitive areas during construction. When feasible staging, storage, and parking areas will be located on paved or graveled surfaces within the Caltrans ROW and away from any designated ESAs, to minimize construction impacts to protected resources. Equipment and materials storage sites will also be located as far away from residential uses as practicable. At the discretion of the Agency-Approved Biological Monitor, limits will also be defined near other environmentally sensitive locations, such as bird nests, when necessary. The ESA fencing, flagging, or other material will be removed when construction activities are complete in the immediate vicinity.
Biological Resources – Natural Communities	BIO-2	Wildlife Exclusion Fencing (WEF). Before starting construction, WEF will be installed around staging areas located within 1.3 miles of Sonoma California tiger salamander breeding pools, as mapped by the SRPCS. The WEF will remain in place throughout the duration of the proposed project-related activities at the staging area, which is expected to be one to two weeks for a given location. The final plans will depict all locations where WEF will be installed and indicate how it will be installed. The special provisions in the bid solicitation package would clearly describe acceptable fencing material.
Biological Resources –	BIO-3	Construction Work Windows. Construction work windows will be incorporated into the proposed project including, but not limited to: vegetation removal will be scheduled outside the bird nesting

Animal and Plant Species		season (February 1 to September 30) to the extent feasible or consistent with Feature BIO-6. Biological restrictions to avoid impacts to Sonoma California tiger salamander include avoidance of working in wet weather by restricting ground-disturbing activities in suitable Sonoma California tiger salamander habitat to be between April 15 and October 15. This work window will be implemented for activities west of the Fulton Road intersection (PM 13.1). This work window does not apply to activities within the edge of pavement or activities east of the Fulton Road intersection, where the Sonoma California tiger salamander is unlikely to occur due to urbanization.
Biological Resources – Animal and Plant Species	BIO-4	Worker Environmental Awareness Training. All construction personnel will attend a mandatory environmental education program, to be delivered by an Agency-Approved Biological Monitor, prior to beginning construction, or prior to beginning work on the proposed project. This program will provide information on special-status species and the employees' personal responsibility in avoiding impacts to species during construction. At a minimum, the training will include: a description of the Sonoma California tiger salamander and migratory birds and their habitats; a discussion of the potential occurrence of these species within the proposed project limits; an explanation of the status of these species and protection under the <i>Act</i> and the <i>California Endangered Species Act</i> ; the description of measures to be implemented to conserve listed species and their habitats as they relate to the work site. Information will be provided on protected species to construction personnel, along with compliance reminders and relevant contact information. Documentation of the training and sign-in sheets will be kept on file and available on request.
Biological Resources – Animal and Plant Species	BIO-5	Pre-construction Surveys and Biological Monitoring. An Agency-Approved Biological Monitor will conduct pre-construction surveys for special-status species. The biologist will be present during construction activities, including establishment of ESAs, vegetation clearing and grubbing, ground disturbance, and other work activities when special-status species may be harmed or harassed. If at any point, any listed species is discovered within the proposed project limits, a 50-foot-wide work restriction buffer will be applied until the animal moves out of the area or the animal is relocated out of harm's way; the regulatory agency(ies) will be notified.
Biological Resources – Animal and Plant Species	BIO-6	Pre-construction Surveys for Nesting Birds. A <i>Bird Protection Special Provision</i> will be included in the construction contract. A preconstruction survey for migratory birds and raptors will be required within 14 days prior to construction if construction activities occur within the migratory bird nesting season (February 1 through September 30), and subsequent surveys will be required every three days throughout the nesting season. If migratory birds or raptors are found nesting adjacent to a work area during construction activities, the following ESA buffers will be required: If an active raptor nest is observed, a 300-foot ESA buffer must be implemented to avoid impacting the young until they have fledged;

		a 50-foot ESA buffer around any active nests of non-raptor migratory birds is required to protect the young until they have fledged, or as otherwise determined by the Agency-Approved Biological Monitor.
Biological Resources – Animal and Plant Species	BIO-7	Biologist Authority to Stop Construction. The Agency-Approved Biological Monitor will stop work, as directed by the resident engineer, in the vicinity of any protected species that are discovered. Work will not begin again until the individual species is either relocated by the monitor or moves out of harm's way by itself.
Biological Resources – Animal and Plant Species	BIO-8	Avoidance of Entrapment. To prevent inadvertent entrapment of animals during construction, excavated, steep-walled holes or trenches more than one foot deep will be covered at the close of each working day using plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. Pipes, culverts, or similar structures stored in the proposed project limits overnight would be inspected before they are subsequently moved, capped, and/or buried.
Biological Resources – Animal and Plant Species	BIO-9	Construction Site Management Practices. The following site restrictions will be implemented to avoid or minimize potential effects on listed species and their habitats: a. Enforce a speed limit of 15 miles per hour (mph) on unpaved areas within the proposed project limits to reduce dust and soil disturbance. b. Locate construction access, staging, storage, and parking areas within the Caltrans ROW outside any designated ESAs. Access routes, staging and storage areas, and contractor parking will be limited to the minimum necessary to construct the proposed project. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading. c. Certify, to the maximum extent practicable, borrow material is non-toxic and weed free. d. Enclose food and food-related trash items in sealed trash containers and remove them from the site at the end of each day. e. Prohibit pets from entering the proposed project limits during construction. f. Prohibit firearms within the proposed project limits, except for those carried by authorized security personnel or local, state, or federal law enforcement officials. g. Maintain equipment to prevent the leakage of vehicle fluids, such as gasoline, oils, or solvents and developing a spill response plan. Hazardous materials, such as fuels, oils, and solvents, would be stored in manufacturer approved containers at a designated location that is at least 200 feet from aquatic habitats, if feasible.
Biological Resources – Invasive Species	BIO-10	Landscaping and Erosion Control Plan. A landscaping and erosion control plan will be prepared to restore disturbed areas with climate-adapted species.

Biological Resources – Invasive Species	BIO-11	Cleaning of Equipment. Equipment will be thoroughly cleaned before arriving in the proposed project limits to prevent the spread of noxious weeds from other locations.
Biological Resources – Invasive Species	BIO-12	Reduce Spread of Invasive Species. Noxious weeds will be controlled within the proposed project construction site in accordance with Caltrans' <i>Highway Design Manual Topic 110.5</i> , "Control of Noxious Weeds – Exotic and Invasive Species," and <i>Executive Order 13112 (Invasive Species)</i> , and by methods approved by a Caltrans' landscape architect or vegetation control specialist.
Biological Resources – Threatened and Endangered Species	BIO-13	Special-Status Species Handling. An Agency-Approved Biological Monitor will handle threatened and endangered species using approved handling techniques. Standard species handling protocols will be used if individuals are discovered within the proposed project limits.
Biological Resources – Threatened and Endangered Species	BIO-14	Consultation with Agencies. Coordination with the regulatory agency(ies) will occur if individuals of species under federal and/or state jurisdiction are found within the proposed project limits during construction.
Biological Resources – Threatened and Endangered Species	BIO-15	Night Work. Nighttime work will be avoided to the maximum extent practicable. For unavoidable nighttime work, all lighting would be directed downwards and towards the active construction area.
Biological Resources – Threatened and Endangered Species	BIO-16	No Monofilament Netting. Plastic monofilament netting (erosion control matting) or similar material will not be used because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds.
Biological Resources – Threatened and Endangered Species	BIO-17	Sonoma California Tiger Salamander Capture and Relocation Plan. Caltrans will to submit a Sonoma California tiger salamander <i>Capture and Relocation Plan</i> at least 30 days prior to start of construction that will describe Sonoma California tiger salamander relocations methods and locations.
Hydrology and Water Quality	HYD-1	Stormwater Pollution Prevention Plan (SWPPP). A SWPPP will be developed and erosion control best management practices (BMPs) will be implemented in compliance with the requirements of the North Coast Regional Water Quality Control Board (RWQCB). The SWPPP must be prepared by the Contractor and approved by Caltrans, pursuant to Caltrans' <i>2018 Standard Specification 13-3</i> . Protective measures would include, at a minimum: a. Disallowing any discharging of pollutants from vehicle and equipment cleaning into any storm drains or watercourses.

		<p>b. All grindings and asphaltic-concrete waste will be stored within previously disturbed areas absent of habitat and at a minimum of 200 feet from any downstream riparian habitat, aquatic habitat, culvert, or drainage feature, if feasible.</p> <p>c. Dedicated fueling and refueling practices will be designated as part of the approved SWPPP. Dedicated fueling areas will be protected from stormwater run-on and will be located at least 200 feet from downslope drainage facilities and water courses, if feasible.</p> <p>d. Fueling must be performed on level-grade areas. Onsite fueling will only be used when and where it is impractical to send vehicles and equipment offsite for fueling. When fueling must occur onsite, the contractor will designate an area to be used subject to the approval of the Caltrans Resident Engineer. Drip pans or absorbent pads will be used during onsite vehicle and equipment fueling.</p> <p>e. Spill containment kits will be maintained onsite at all times during construction operations and/or staging or fueling of equipment.</p> <p>f. Dust control measures consistent with <i>Air Quality Project Features</i> will be implemented. Dust control would be addressed during the environmental education session.</p> <p>g. Coir logs or straw wattles will be installed in accordance with the Caltrans <i>BMP Guidance Handbook</i>, to capture sediment.</p> <p>h. Graded areas will be protected from erosion using a combination of silt fences, erosion control netting (such as jute or coir), and fiber rolls in accordance with the Caltrans <i>BMP Guidance Handbook</i>.</p>
--	--	--

Action Area

The action area is defined in 50 CFR § 402.02, as “all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action.” For the proposed project, the action area encompasses a 117-acre construction footprint (70.9 acres hardscape + 45.9 acres vegetated landscape of which only 0.19 acre is suitable Sonoma California tiger salamander habitat) plus a 300-foot habitat buffer to account for noise, vibration, and visual disturbance.

Analytical Framework for the Jeopardy Determinations

Section 7(a)(2) of the Endangered Species Act requires that federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. “Jeopardize the continued existence of” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR § 402.02).

The jeopardy analysis in this Biological Opinion considers the effects of the proposed federal action, and any cumulative effects, on the range wide survival and recovery of the listed species. It relies on four components: (1) the *Status of the Species*, which describes the range wide condition of the species, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline*, which analyzes the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action*, which are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the

proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action; and (4) the *Cumulative Effects*, which evaluates the effects of future, non-federal activities in the action area on the species.

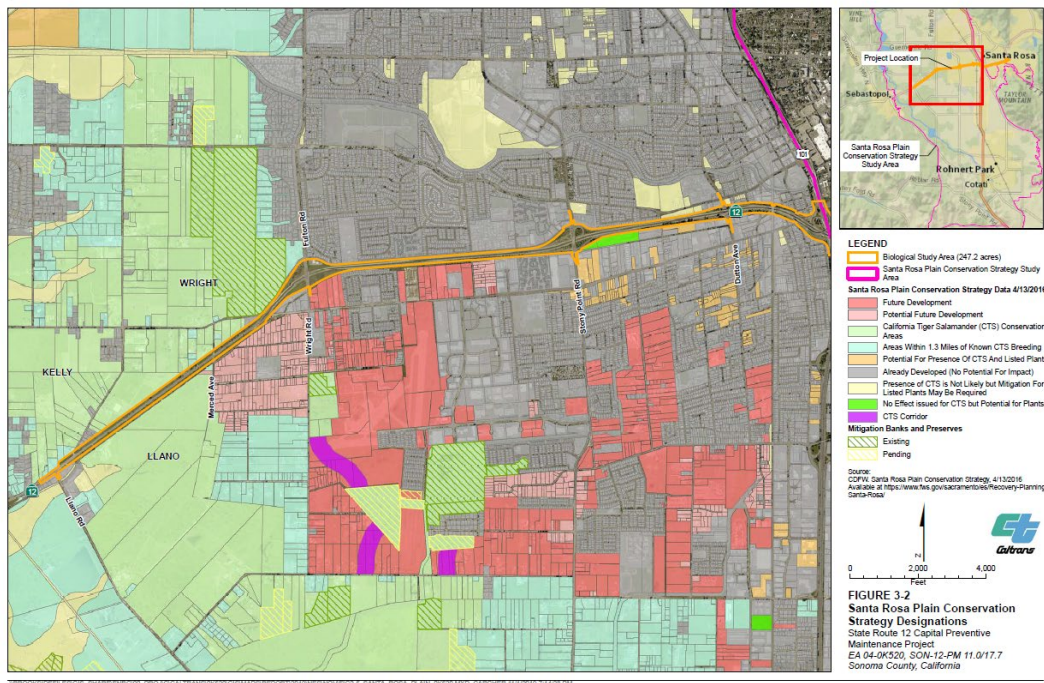
Status of the Species

For the most recent comprehensive assessment of the species' range-wide status, please refer to the *Recovery Plan for the Santa Rosa Plain* (Recovery Plan, Service 2016). Threats evaluated and discussed in the Recovery Plan have continued to affect the species since the Sonoma California tiger salamander was listed as endangered, with loss of habitat being the most significant effect. While there have been continued losses of Sonoma California tiger salamander habitat throughout the various Core and Management Areas, to date no project has proposed a level of effects for which the Service has issued a Biological Opinion of jeopardy for the species.

Environmental Baseline

Environmental Baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.

The action area is located within a relatively rural to urban area of the Sonoma Valley. The eastern three fifths of the proposed project, from the Fulton Road/Wright Road intersection, east to the U.S. 101 interchange is well within the urban limits of the City of Santa Rosa. Though the off-pavement area of the Caltrans ROW is characterized by landscape and roadside drainage features, the areas adjacent to the ROW are occupied by residential, business, and industrial development. The SRPCS identifies this area as "already developed" or "future development". The remainder of the proposed project area, west of the Fulton Road/Wright Road intersection is adjacent to a mixture of rural residential, agricultural fields, and open fields with vernal pool and wetland signatures. The SRPCS identifies parcels adjacent to this segment as being within "conservation areas" and "within 1.3 miles of known breeding". Caltrans estimated that approximately 0.19 acre of the proposed project occurs within areas defined as being within 1.3 miles of known breeding and 0.07 acre within areas of potential presence of the Sonoma California tiger salamander. These areas are identified for use in temporary staging and are occupied by annual vegetation with suitable underground refugia for the listed salamander. The SRPCS designations in reference to the proposed project footprint is shown in Figure 2, as presented in the February 2020 BA (Caltrans 2020).

Figure 2. The SRPCS Designations and Proposed Project Footprint.

All of the 117-acre proposed project construction footprint is located with the described range of the Sonoma California tiger salamander. A map depicting this range is included in the Service's online profile for the species at <https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=2076#rangeInfo>. The proposed project is also within the species' Llano Crescent-Stony Point core recovery unit (Service 2016) and the area potentially occupied by the species presented in the SRPCS (Conservation Strategy Team 2005). Caltrans assumes the Sonoma California tiger salamander is present within the action area based on guidance provided by the SRPCS (Conservation Strategy Team 2005).

Despite being within the described range of the Sonoma California tiger salamander, the proposed project footprint east of the Fulton Road intersection is unlikely to provide habitat for the listed salamander due to urbanized development. The segment of the proposed project, west of Fulton Road is adjacent to areas that provide likely habitat for the species. The grassland habitat adjacent to and connected with the landscape portions of the SR 12 ROW provide appropriate upland dispersal, foraging, and refugia habitat for the species. CDFW's 162-acre Wright Preservation Bank is located approximately 80 feet north of the proposed project footprint, just west of Fulton Road. The Wright Preservation Bank includes habitat credits for Sonoma California tiger salamander habitat. The proposed project footprint parallels the Wright Preservation Bank for approximately 0.25 mile. The bank includes occupied upland and breeding habitat for the Sonoma California tiger salamander. Suitable breeding ponds in the Wright Preservation Bank are within 0.25 mile of the proposed project footprint. In addition to the California Natural Diversity Database (CNDDB) records associated with the Wright Preservation Bank (CDFW 2020, Sonoma California tiger salamander occurrence 344), there are four additional CNDDB records within 0.5 mile of the proposed project footprint (Sonoma California tiger salamander occurrences 237, 236, 741, and 936).

Adult California tiger salamanders are highly mobile and have been documented to move up to 1.3 miles from breeding ponds (Sweet 1998). The upland habitat within the action area, east of Fulton Road has direct connectivity with suitable habitat adjacent to the project site and is well

within the feasible movement distance to potential breeding and other resources vital to its life history.

Sonoma California tiger salamanders and habitat quality within the action area are adversely affected by activities in the SR 12 transportation corridor. The ROW is subject to landscape and vegetation maintenance by Caltrans. In addition, traffic volume, traffic noise, exhaust, fluid leaks, invasive vegetation, and the threat of animal-vehicle collision have an adverse effect on the function of the adjacent habitat for both common and listed wildlife. This parallel band of disturbance is referred to as a “road effects zone.” The outward extent of this zone can vary with factors such as topography and the sensitivity of a given species to those effects. A spectrum of typical road effects are likely to negatively influence the suitability of the Sonoma California tiger salamander habitat in and adjacent to the project footprint as well as the behavior of the species within their respective road effects zone. This issue is demonstrated nearby on Stony Point Road where Sonoma California tiger salamanders are killed annually as they attempt to cross the road, moving between upland habitat and a breeding pond (CDFW 2020, Sonoma California tiger salamander occurrence 396).

Ideal road passage for wildlife is provided by structures that “bridge” the ecosystem rather than provide a viaduct for a given species to move from point A to B. The effectiveness of a span, box, or pipe undercrossing is largely dependent upon their openness ratio, that being the length relative to the height and width. Wildlife are more likely to make use of undercrossings with short lengths, large dimensions, a clear line of sight, and a traversable substrate. They are unlikely to use even the most optimally designed structure unless directional fencing or other barriers are in place to guide them there and prevent them from accessing the pavement.

The Service was unable to identify any potential safe passage across SR 12 in the form of culvert undercrossings, within the proposed project footprint, west of Fulton Road. All of the movements across the SR 12 corridor, within the action area, occur over pavement. Given the number of lanes and heavy traffic loads, there is an associated high risk of mortality. This risk is increased for small, less agile, and less detectable species such as the Sonoma California tiger salamander.

The Service believes that the Sonoma California tiger salamander is reasonably certain to disperse within the action area due to: (1) the proposed project footprint being located within the species’ range and current distribution; (2) the presence of suitable upland dispersal, foraging, and refugia habitat within the project footprint that is a reasonable distance from suitable breeding habitat; (3) modeling presented in the SRPCS that indicates likely presence of the species; (4) all the elements needed to support the species’ life history are located within 0.25 mile of the proposed project footprint; (5) the salamander’s ability to move long distances; and (6) the biology and ecology of the animal.

Effects of the Action

Effects of the Action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action.

The effects of the proposed project include those effects occurring within the action area during and following construction of the proposed project. For the proposed project, effects are associated with the described in-kind repair of hardscape features and gravel shoulder backing as well as the establishment and use of a temporary staging area within the Caltrans ROW. The effects of habitat

loss/degradation were analyzed based on the term of the loss, restoration potential, and the associated changes to functional value. As a result, habitat loss was characterized as permanent or temporary.

Permanent habitat loss/degradation was defined as those areas where baseline ecological function for a listed species and the ecological processes that it depends on, have been lost or significantly reduced. As presented by Caltrans, the proposed off-pavement ground-disturbing construction activities will not result in the permanent loss of Sonoma California tiger salamander habitat. Proposed activities are limited to in-kind replacement of infrastructure such as shoulder backing and will not result in the addition of hardscape.

Temporary habitat loss was considered for any landscape cover that will be restored to baseline habitat values (for the given species) within one year following the initial disturbance. Based on the link to the successful restoration timeline, the temporary habitat loss category typically applies to habitat types that are dominated by annual plant species or other situations that can become quickly established. Caltrans estimated that the proposed use of a temporary staging area will result in the temporary disturbance of 0.19 acre of upland dispersal, foraging, and refugia habitat for the Sonoma California tiger salamander habitat. These areas will be utilized during construction for workspace and will be actively restored at the end of the proposed project. The affected annual vegetative cover has the potential to provide baseline vegetative character within less than a year following the initial ground disturbance. Adverse effects due to noise, vibration, and visual disturbance will be limited to the 180 days of total anticipated working days, with work in given locations being completed within a matter of weeks.

Caltrans will minimize construction-related effects by implementing the *Conservation Measures* included in the *Description of the Action* section. Effective implementation of *Conservation Measures* will likely minimize effects to the Sonoma California tiger salamander's habitat during construction, but incidental take is still likely to occur. Therefore, the proposed project has the potential to result in a variety of adverse effects to the Sonoma California tiger salamander.

Ground-disturbing construction activities associated with rebuilding shoulder backing, construction of drainage improvements, as well as equipment staging and the preparation and use of workspace could result in killing, injuring, and disrupting Sonoma California tiger salamander in the action area.

Vegetation clearing will daylight previously shaded areas, likely changing the microclimate below with increased exposure and decreased moisture. This could affect the movement and available cover sites for the Sonoma California tiger salamander. Removal of understory vegetation will result in the loss of foraging habitat and cover from predators and the elements. The ground disturbance associated with vegetation removal may result in exposure, desiccation, stranding, crushing, maiming, or otherwise disturbing the Sonoma California tiger salamander. The noise and vibration associated with the vegetation removal will be disruptive and may result in Sonoma California tiger salamanders avoiding the action area, therefore modifying their behavior and creating a barrier to resource areas. Noise and vibration may also result in Sonoma California tiger salamanders taking cover in inconspicuous areas rather than fleeing potential harm. This will make them more difficult to find, avoid, and rescue from harm's way.

Educating project personnel will encourage compliance with the conservation measures and increase the possibility that Sonoma California tiger salamanders in the work area will be identified and addressed appropriately for avoidance.

Pre-construction surveys by an Agency-Approved Biological Monitor will assist in clearing Sonoma California tiger salamanders from the work areas prior to the introduction of a potential construction-related threat. Biological clearance of work areas prior to the start of each day's work and during construction will increase the chances of identifying listed species in the work area that would be susceptible to injury. Biological clearance of work areas is limited by the experience of the biologist, the complexity and abundance of potential cover sites, the small size and inconspicuous nature of the species, and the challenges of completing a thorough clearance given the construction schedule.

Despite being "cleared" prior to construction, Sonoma California tiger salamanders can continue to move into the work site undetected. Listed salamanders could routinely move through as well as back and forth from the adjacent upland. They may be actively moving around, through or within the work area during the evening as well as when work is taking place. This places greater emphasis on thorough biological clearance of work areas and under staged equipment and materials prior to the start of each day's activities. Caltrans will reduce the potential for the Sonoma California tiger salamander to disperse through the work area during construction by restricting work to the dry season. A Sonoma California tiger salamander may engage in dispersal and other above ground activities in the cooler evening hours. Therefore, the use of exclusion fencing will minimize access for the listed salamander into areas where they may be killed. The fence may result in disorientation causing Sonoma California tiger salamanders to become fatigued or desiccated while negotiating the fence line. This risk would be minimized if Caltrans were to include the addition of cover boards along the length of the exclusion fencing.

Monitoring and covering steep-walled excavations should minimize the potential for the Sonoma California tiger salamander to be affected by predation, desiccation, entombment, or starvation. Proper trash disposal is often difficult to enforce and is a common non-compliance issue. Improperly disposed edible trash could attract predators, such as raccoons, skunks, crows, and ravens, to the site, which could subsequently prey on the Sonoma California tiger salamander.

Discovery, capture, and relocation of individual Sonoma California tiger salamanders may avoid injury or mortality due to construction activities; however, capturing and handling animals may result in stress and/or inadvertent injury during handling, containment, and transport. Relocation often results in stress and increased risk as animals experience disorientation and exposure after being removed from their purposeful location.

Sonoma California tiger salamanders and their prey could also be affected by contamination due to chemical or sediment discharge. Exposure pathways could include inhalation, dermal contact, direct ingestion, or secondary ingestion of contaminated soil, plants or prey species. Exposure to contaminants could cause short- or long-term morbidity, possibly resulting in reduced productivity or mortality. However, Caltrans proposes to reduce these risks by limiting the equipment used in the stream bed to hand tools, implementing BMPs and the SWPPP that consist of refueling, oiling, or cleaning of vehicles and equipment a minimum of 50 feet from aquatic areas; installing coir rolls, straw wattles and/or silt fencing to capture sediment and prevent runoff or other harmful chemicals from entering the aquatic habitat; and locating staging, storage and parking areas away from aquatic habitat. Caltrans' commitment to use erosion control devices other than mono-filament should be effective in avoiding the associated risk of entrapment that can result in death by predation, starvation, or desiccation (Stuart et al. 2001). Straw wattles can present a challenge to Sonoma California tiger salamander movement. This challenge may be minimized if Caltrans applies hydroseed after the wattles have been placed, therefore increasing the chance that the listed salamander can grip the surface and climb over them.

The completed project will not create barriers to movement or dismantle existing barriers and it is unlikely to increase the local risk of Sonoma California tiger salamander mortality from vehicle collision.

As noted previously in the Description of the Proposed Action section, the project proponent has also proposed a set of conservation measures, including the commitment to provide compensatory habitat as a condition of the action. This compensatory habitat is intended to minimize the effect on the species of the proposed project's anticipated incidental take, resulting from the temporary disturbance and degradation of habitat described above. The compensatory habitat proposed will be in the form of the purchase of 0.38 acre of credits for the Sonoma California tiger salamander from an Agency-Approved conservation bank. This component of the action will have the effect of protecting and managing lands for the species' conservation in perpetuity. The compensatory lands will provide suitable habitat for breeding, feeding, or sheltering commensurate with or better than habitat lost as a result of the proposed project. Providing this compensatory habitat as part of a relatively large, contiguous block of conserved land may contribute to other recovery efforts for the species.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the SR 12 CAPM Project is not considered in this section because they require separate consultation pursuant to section 7 of the Act. During this consultation, the Service did not identify any future non-federal actions that are reasonably certain to occur in the action area of the proposed project.

Conclusion

After reviewing the current status of the Sonoma California tiger salamander, the environmental baseline for the action area, the effects of the proposed SR 12 CAPM Project, and the cumulative effects, it is the Service's biological opinion that the SR 12 CAPM Project, as proposed, is not likely to jeopardize the continued existence of the Sonoma California tiger salamander. The Service reached this conclusion because the project-related effects to the species, when added to the environmental baseline and analyzed in consideration of all potential cumulative effects, will not rise to the level of precluding recovery or reducing the likelihood of survival of the species based on the following:

- 1) Adverse effects to the Sonoma California tiger salamander will be reduced by implementation of the described *Conservation Measures*.
- 2) The proposed project will result in the temporary loss and degradation of 0.19 acre of Sonoma California tiger salamander habitat, limited to the Caltrans' ROW, out of thousands of acres of their habitat range-wide.
- 3) Construction-related threats to the Sonoma California tiger salamander are primarily limited to the proposed vegetation clearing activities and temporary use of a proposed staging area.
- 4) The habitat loss/degradation is located within a corridor subject to baseline degradation associated with the use and maintenance of SR 12.

- 5) The handling and relocation of all the Sonoma California tiger salamanders as a conservation measure is not anticipated to substantially increase their risk of mortality or substantially interfere with their foraging, sheltering, and breeding activities.
- 6) The purchase of 0.38 acre of occupied Sonoma California tiger salamander habitat will aid in the conservation and recovery of the species.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by Service regulations at 50 CFR 17.3 as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the same regulations as an act which actually kills or injures wildlife. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this *Incidental Take Statement*.

The measures described below are non-discretionary, and must be undertaken by Caltrans so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this incidental take statement. If Caltrans (1) fails to assume and implement the terms and conditions or (2) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

Amount or Extent of Take

The Service anticipates that incidental take of the Sonoma California tiger salamander will be difficult to detect because when this amphibian is not in their breeding ponds, or foraging, migrating, or conducting other surface activity, it inhabits burrows or other cover sites; these cover sites may be located a distance from the breeding ponds; and the adult migrations occur on a limited period during rainy nights in the fall, winter, or spring. Finding an injured or dead Sonoma California tiger salamander is unlikely due to their relatively small body size, rapid carcass deterioration, and likelihood that the remains will be removed by a scavenger. Losses of the Sonoma California tiger salamander may also be difficult to quantify due to a lack of baseline survey data and seasonal/annual fluctuations in their numbers due to environmental or human-caused disturbances. There is a reasonable likelihood of harm, injury and mortality as a result of the proposed construction activities, and capture and relocation efforts; therefore, the Service anticipates that take incidental to the proposed action as the non-lethal harm of all adult and juvenile Sonoma California tiger salamanders within the 0.19 acre of suitable upland dispersal habitat temporarily disturbed, and the capture of all adult and juvenile Sonoma California tiger salamanders within the 117-acre construction footprint.

Since the Service cannot estimate the number of individual Sonoma California tiger salamanders that will be incidentally taken for the reasons listed, the Service is providing a mechanism to quantify when take would be considered to be exceeded as a result of implementing the proposed project. The Service will use detection of one (1) dead or injured Sonoma California tiger salamander to determine when take is exceeded due to injury or mortality. By setting a threshold of one (1) individual detected, the Service has set an incidental take limit that is measurable, irrefutable, and indicates that the species is being affected at a level where conservation measures and project implementation need to be evaluated and possibly modified. The Service concludes that incidental take of the Sonoma California tiger salamander will be considered exceeded if one (1) dead or injured individual Sonoma California tiger salamander is detected by biological monitors or other project personnel.

Upon implementation of the following *Reasonable and Prudent Measures*, the incidental take of the Sonoma California tiger salamander associated with the proposed project in proportion to the amount and type of take outlined above will become exempt from the prohibitions described under section 9 of the Act. No other forms of take are exempted under this opinion.

Effect of the Take

In the accompanying biological opinion, the Service determined that this level of anticipated take for the Sonoma California tiger salamander is not likely to result in jeopardy to the species.

Reasonable and Prudent Measure

The Service has determined that the following reasonable and prudent measure is necessary and appropriate to minimize the effect of the action on the Sonoma California tiger salamander. Caltrans will be responsible for the implementation and compliance with this measure:

Minimize the adverse effects to the Sonoma California tiger salamander and their habitat in the action area by implementing their proposed project, including the conservation measures as described, with the following terms and conditions.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, Caltrans must ensure compliance with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

The following *Terms and Conditions* implement the *Reasonable and Prudent Measure*:

1. Caltrans shall include a copy of all relevant permits within the construction bid package of the proposed project. The Resident Engineer or their designee shall be responsible for implementing the *Conservation Measures* and *Terms and Conditions* of this document.
2. At least 15 days prior to the onset of any ground-disturbing activities, including vegetation removal, Caltrans shall submit to the Service, for approval, the name(s) and credentials of proposed biological monitors. Information included in a request for authorization shall include, at a minimum: (1) relevant education; (2) relevant training concerning Sonoma California tiger salamander identification, survey techniques, handling individuals of different age classes, and handling of different life stages by a permitted biologist or recognized species expert authorized for such activities by the Service; (3) a summary of field experience

conducting requested activities (to include project/research information); (4) a summary of biological opinions under which they were authorized to work with the Sonoma California tiger salamander and at what level (such as construction monitoring versus handling), this shall also include the names and qualifications of persons under which the work was supervised as well as the amount of work experience on the actual project; (5) a list of *Federal Recovery Permits* [10(a)1(A)] held or under which they are authorized to work with the Sonoma California tiger salamander (to include permit number, authorized activities, and name of permit holder); and (6) any relevant professional references with contact information. No project construction shall begin until Caltrans has received written Service approval for biologists to conduct specified activities.

3. Acceptable exclusion fencing shall be at least 1 foot high and consist of opaque material that Sonoma California tiger salamanders cannot see through.
4. Cover boards shall be placed every 50 feet along the outside of the exclusion fencing to provide shelter for Sonoma California tiger salamanders and prevent them from desiccating. The Agency-Approved Biological Monitor shall check under the cover boards as part of their daily routine.
5. Each Sonoma California tiger salamander encounter shall be treated on a case-by-case basis in coordination with the Service but general guidance is as follows: (1) leave the non-injured animal if it is not in danger or (2) move the animal to a nearby location if it is in danger.

These two options are further described as follows:

- a. When a Sonoma California tiger salamander is encountered in the action area, the first priority is to stop all activities in the surrounding area that have the potential to result in the harm, harassment, injury, or death of the individual. Then the monitor needs to assess the situation in order to select a course of action that will minimize adverse effects to the individual. Contact the Service once the site is secure. The contacts for this situation are Ryan Olah (ryan_olah@fws.gov) or John Cleckler (john_cleckler@fws.gov). They can also be reached at (916) 414-6623 and (916) 414-6639, respectively. Contact the Service prior to the start of construction to confirm the status of this contact information.

The first priority is to avoid contact with the animal and allow it to move out of the project footprint and hazardous situation on its own to a safe location. The animal should not be picked up and moved because it is not moving fast enough or it is inconvenient for the construction schedule. This guidance only applies to situations where an animal is encountered on the move during conditions that make their upland travel feasible. This does not apply to animals that are uncovered or otherwise exposed or in areas where there is not sufficient adjacent habitat to support the life history of the Sonoma California tiger salamander should they move outside the construction footprint.

Avoidance is the preferred option if the animal is not moving and is using aquatic habitat or is within some sort of burrow or other refugia. The area shall be well marked for avoidance by construction and an Agency-Approved Biological Monitor shall be assigned to the area when work is taking place nearby.

- b. The animal shall be captured and moved when it is the only option to prevent its death or injury.

If appropriate habitat is located immediately adjacent to the capture location, then the preferred option is short distance relocation to that habitat. This must be coordinated with the Service but the general guidance is the salamander shall not be moved outside of the area it would have traveled on its own. Captured salamanders should be released as close to their capture location as feasible as possible for their continued safety. Under no circumstances should an animal be relocated to another property without the owner's written permission. It is Caltrans' responsibility to arrange for that permission.

The release must be coordinated with the Service and will depend on where the individual was found and the opportunities for nearby release. In most situations the release location is likely to be into the mouth of a small burrow or other suitable refugia and in certain circumstances pools without non-native predators may be suitable.

Only Agency-Approved Biological Monitors for the proposed project can capture Sonoma California tiger salamanders. Nets or bare hands may be used to capture them. Soaps, oils, creams, lotions, repellents, or solvents of any sort cannot be used on hands within 2 hours before and during periods when they are capturing and relocating either species. To avoid transferring disease or pathogens between sites during the course of surveys or handling of amphibians, Agency-Approved Biological Monitor must use the following guidance for disinfecting equipment and clothing. These recommendations are adapted from the *Declining Amphibian Population Task Force Fieldwork Code of Practice* (<https://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf>).

- i. All dirt and debris, including mud, snails, plant material (including fruits and seeds), and algae, must be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water and/or an amphibian. Cleaned items should be rinsed with fresh water before leaving each site.
- ii. Boots, nets, traps, etc., must then be scrubbed with either a 70 percent ethanol solution, a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water), QUAT 128 (quaternary ammonium, use 1:60 dilution), or a 6 percent sodium hypochlorite 3 solution and rinsed clean with water between sites. Avoid cleaning equipment in the immediate vicinity of a pond or wetland. All traces of the disinfectant must be removed before entering the next aquatic habitat.
- iii. Used cleaning materials (liquids, etc.) must be disposed of safely, and if necessary, taken back to the lab for proper disposal.
- iv. The Agency-Approved Biological Monitor must limit the duration of handling and captivity. While in captivity, salamanders shall be kept individually in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. Containers used for holding or transporting should not contain any standing water.

6. Care of Injured or Dead Animals. Injured Sonoma California tiger salamanders shall be cared for by a licensed veterinarian or a wildlife rehabilitation facility. After hours, interim care may be provided by another experienced person, including an Agency-Approved Biological Monitor, until the animal can be delivered to a facility. Dead individuals of any listed species shall be preserved by freezing and held in a secure location. The Service shall be notified of the discovery of death or injury to a listed species within 24 hours of the initial discovery.
7. Service Access. If requested, before, during, or upon completion of groundbreaking and construction activities, Caltrans shall allow access by Service personnel into the project footprint to inspect the project and its activities.

Monitoring

In order to monitor whether the amount or extent of incidental take anticipated from implementation of the proposed project is approached or exceeded, Caltrans shall adhere to the following reporting requirements. Should this anticipated amount or extent of incidental take be exceeded, Caltrans must reinitiate formal consultation as per 50 CFR 402.16.

1. For those components of the action that will result in habitat degradation or modification whereby incidental take in the form of harm is anticipated, Caltrans shall provide a precise accounting of the total acreage of habitat impacted to the Service after completion of construction.
2. Caltrans shall immediately contact the Service's Coast-Bay Division Chief of the Endangered Species Program at the Sacramento Fish and Wildlife Office (SFWO) at (916) 414-6623 to report direct encounters between listed species and project workers and their equipment whereby incidental take in the form of harm, injury, or death occurs. If the encounter occurs after normal working hours, Caltrans shall contact the Coast-Bay Division Chief at the earliest possible opportunity the next working day. When injured or killed individuals of the listed species are found, Caltrans shall follow the steps outlined in the *Salvage and Disposition of Individuals* section below.
3. For those components of the action that will require the capture and relocation of any listed species, Caltrans shall immediately contact the Coast-Bay Division Chief to report the action. If capture and relocation need to occur after normal working hours, Caltrans shall contact the Coast-Bay Division Chief at the earliest possible opportunity the next working day.
4. Sightings of any listed or sensitive animal species shall be reported to the CNDDDB (<https://wildlife.ca.gov/Data/CNDDDB>).
5. Construction compliance reports shall be addressed to the Coast-Bay Division Chief of the Endangered Species Program at the SFWO.
6. Caltrans shall submit post-construction compliance reports prepared by the Agency-Approved Biological Monitor to the Service within 60 calendar days following completion of each construction season or within 60 calendar days of any break in construction activity lasting more than 60 calendar days. This report shall detail (1) dates that relevant project activities occurred; (2) pertinent information concerning the success of the project in implementing avoidance and minimization measures; (3) an explanation of failure to meet such measures, if any; (4) known project effects on the Sonoma California tiger salamander;

(5) occurrences of incidental take of any listed species; (6) documentation of employee environmental education; and (7) other pertinent information.

Disposition of Individuals Taken

Injured listed species must be cared for by a licensed veterinarian or other qualified person(s), such as the Agency-Approved Biological Monitor. Dead individuals must be sealed in a resealable plastic bag with an outside-attached note containing the date and time when the animal was found, the location where it was found, and the name of the person who found it, and the bag containing the specimen frozen in a freezer located in a secure site, until instructions are received from the Service regarding the disposition of the dead specimen. The Service contact person is the Coast-Bay Division Chief of the Endangered Species Program at the SFWO at (916) 414-6623.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The Service recommends the following actions:

1. Caltrans District 4 should work with the Service to develop a conservation strategy that would identify the current safe passage potential along San Francisco Bay Area highways and the areas where safe passage for wildlife could be enhanced or established.
2. Caltrans should assist the Service in implementing recovery actions identified in the *Recovery Plan for the Santa Rosa Plain* (Service 2016).
3. Caltrans should consider establishing functioning preservation and creation conservation banking systems to further the conservation of the Sonoma California tiger salamander. Such banking systems also could possibly be utilized for other required mitigation (i.e., seasonal wetlands, etc.) where appropriate. Efforts should be made to preserve habitat along roadways in association with wildlife crossings.
4. Roadways can constitute a major barrier to critical wildlife movement. Therefore, Caltrans should incorporate culverts, tunnels, or bridges on highways and other roadways that allow safe passage by the Sonoma California tiger salamander, other special-status animals, and general wildlife. Photographs, plans, and other information should be included in the BAs if “wildlife friendly” crossings are incorporated into projects. Efforts should be made to establish upland culverts designed specifically for wildlife movement rather than accommodations for hydrology. Transportation agencies should also acknowledge the value of enhancing human safety by providing safe passage for wildlife in their early project design.
5. Adequate wildlife road mortality data is a critical factor in assessing where wildlife and the travelling public are most at risk due to animal-vehicle collision along California’s highways. Caltrans should make its wildlife road mortality data available or provide it to a database service such as the California Roadkill Observation System (<https://www.wildlifecrossing.net/california/>) to enhance road ecology-based planning, add to our resources of “best available science”, and increase public safety.
6. Caltrans should ensure that their container plants used for restoration are sourced from nurseries utilizing the Working Group for Phytophthoras in Native Habitats’ Guidelines to

Minimize Phytophthora Pathogens in Restoration Nurseries (available at <http://www.suddenoakdeath.org/welcome-to-calphytos-org-phytophthoras-in-native-habitats/resources/>).

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION--CLOSING STATEMENT

This concludes formal consultation on the SR 12 CAPM Project. As provided in 50 CFR §402.16, reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action.

If you have questions regarding this biological opinion, please contact John Cleckler, Caltrans Liaison, john_cleckler@fws.gov, (916) 414-6639 or Ryan Olah, Coast-Bay Division Chief, ryan_olah@fws.gov, (916) 414-6623, at the letterhead address, by telephone, or by e-mail.

Sincerely,



Jennifer M. Norris, Ph.D.
Field Supervisor

ec:

Robert Stanley, California Department of Fish and Wildlife, Fairfield, California
Robert Blizard, Caltrans District 4, Oakland, California

Literature Cited

- California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Data Base (CNDDB) RAREFIND. Natural Heritage Division, Sacramento, California.
- California Department of Transportation (Caltrans). 2020. Biological Assessment for State Route 12 Preventative Maintenance Project. February. Oakland, California.
- Conservation Strategy Team. 2005. Santa Rosa Plain Conservation Strategy. Final. December 1, 2005.
- Stuart, J. M., M. L. Watson, T. L. Brown, and C. Eustice. 2001. Plastic netting: an entanglement hazard to snakes and other wildlife. *Herpetological Review* 32(3):162–164.
- Sweet, S. 1998. Letter to Dwight Harvey, U.S. Fish and Wildlife Service with an unpublished report titled “Vineyard development posing an imminent threat to *Ambystoma californiense* in Santa Barbara County, California.” University of California, Santa Barbara, California.
- U. S. Fish and Wildlife Service (Service). 2007. Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers (Corps) Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California (Corps File Number 223420N); Service file number 81420-2008-F-0261), dated November 9, 2007.
- _____. 2011. Endangered and threatened wildlife and plants; revised designation of critical habitat for the Sonoma County distinct population segment of California tiger salamander. *Federal Register* 76(169): 54345 - 54372.
- _____. 2016. Recovery Plan for the Santa Rosa Plain: *Blennosperma bakeri* (Sonoma sunshine); *Lasthenia burkei* (Burke’s goldfields); *Limnanthes vinculans* (Sebastopol meadowfoam); California Tiger Salamander Sonoma County Distinct Population Segment (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vi + 128 pp.