

State Route 121 Bridge Railing Upgrade Project



Initial Study with Proposed Negative Declaration

SONOMA COUNTY, CALIFORNIA
DISTRICT 4 – SON – 121 (PM 6.52-8.43)
04-2Q440/0419000013

Prepared by the
State of California, Department of Transportation

June 2022



General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the State Route (SR) 121 Bridge Railing Upgrade Project (Project). Caltrans proposes to upgrade the bridge railings at Yellow Creek Bridge (approximately 44 linear feet) (post mile [PM] 6.52) and at Arroyo Seco Bridge (approximately 164 linear feet) (PM 8.43) on SR 121 in Sonoma County, California. The Project would also include widening Yellow Creek Bridge approximately 6 inches on each side (for a total of approximately 12 inches) and Arroyo Seco Bridge approximately 8 inches on each side (for a total of approximately 16 inches) to accommodate the updated bridge railings, removing the metal beam guardrail and alternative flared terminal systems, and installing Midwest Guardrail System and alternative in-line terminal systems, constructing concrete anchor blocks, and installing vegetation control. Additional Project information is provided in Chapter 2.

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

What you should do:

- Please read this IS/ND.
- This IS/ND, maps, and Project information are available to download at the [District 4 Environmental Documents by County](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs) website (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>). In addition, a hardcopy of this IS/ND will be made available at the following location in the vicinity of the Project:
 - Sonoma County Regional Library
755 West Napa Street
Sonoma, CA 95476
- We would like to hear what you think. Send comments by August 8, 2022 to:

- Caltrans, District 4
ATTN: Arnica MacCarthy, Senior Environmental Planner
P.O. Box 23660, MS-8B
Oakland, CA 94623-0660; or
- sr121bridgerailupgrade@dot.ca.gov

What happens next:

Per CEQA Section 15073, Caltrans will circulate this IS/ND for review for 30 days from July 8, 2022, to August 8, 2022. During the 30-day public review period, the general public and responsible and trustee agencies can submit comments on this IS/ND to Caltrans. Caltrans will consider the comments and will respond to the comments after the 30-day public review period.

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

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

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

Alternative Formats:

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

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

Initial Study with Proposed Negative Declaration

04-SON-121

6.52-8.43

04-2Q440

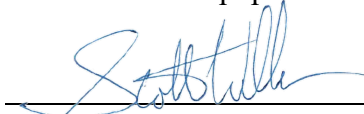
DIST. – CO. – RTE.

PM

EA

Project title:	State Route 121 Bridge Railing Upgrade 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) 506-0481
Project location:	Sonoma County, California
General plan description:	Highway
Zoning:	Transportation Corridor
Other public agencies whose approval is required (e.g., permits, financial approval, or participation agreements)	California Transportation Commission U.S. Fish and Wildlife Service

The IS/ND, maps, and Project information are available to download at the [District 4 Environmental Documents by County](https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs) website (<https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs>).



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

 6/28/2022

Date

To obtain a copy in Braille, in large print, on audiocassette, or on computer disk, please mail Caltrans, District 4, ATTN: Arnica MacCarthy, Senior Environmental Planner, P.O. Box 23660, MS-8B, Oakland, CA 94623-0660; email sr121bridgerailupgrade@dot.ca.gov; or call **California Relay Service** at **(800) 735-2929 (TTY)**, **(800) 735-2922 (Voice)**, or **711**.

Proposed Negative Declaration

Project Description

The California Department of Transportation (Caltrans) has prepared this Initial Study with Proposed Negative Declaration (IS/ND) for the State Route (SR) 121 Bridge Railing Upgrade Project (Project). Caltrans proposes to upgrade the bridge railings at Yellow Creek Bridge (approximately 44 linear feet) (Post Mile [PM] 6.52) and at Arroyo Seco Bridge (approximately 164 linear feet) (PM 8.43) on SR 121 in Sonoma County, California. The Project would also include widening Yellow Creek Bridge approximately 6 inches on each side (for a total of approximately 12 inches) and Arroyo Seco Bridge approximately 8 inches on each side (for a total of approximately 16 inches) to accommodate the updated bridge railings, removing the metal beam guardrail and alternative flared terminal systems, and installing Midwest Guardrail System and alternative in-line terminal systems, constructing concrete anchor blocks, and installing vegetation control. Additional Project information is provided in Chapter 2.

Determination

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

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

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

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

Date

Table of Contents

General Information about this Document.....	iii
Initial Study with Proposed Negative Declaration.....	v
Proposed Negative Declaration.....	vii
List of Abbreviated Terms.....	xi
Chapter 1 Proposed Project.....	1-1
1.1 Introduction.....	1-1
1.2 Purpose and Need	1-1
1.3 Existing Facilities	1-2
Chapter 2 Project Description.....	2-1
2.1 Introduction.....	2-1
2.2 Project Components.....	2-1
2.2.1 Widen Bridges	2-1
2.2.2 Upgrade Bridge Railings.....	2-1
2.2.3 Remove Metal Beam Guardrail and Alternative Flared Terminal System, and Install Midwest Guardrail System and Alternative In-Line Terminal System	2-3
2.2.4 Construct Concrete Anchor Blocks.....	2-3
2.2.5 Install Vegetation Control.....	2-3
2.3 Construction Methodology	2-3
2.3.1 Construction Staging.....	2-3
2.3.2 Construction Schedule	2-4
2.3.3 Construction Equipment	2-5
2.3.4 Utilities.....	2-5
2.3.5 Right of Way.....	2-5
2.4 Permits, Licenses, Agreements, Certifications, and Approvals Required ...	2-5
Chapter 3 California Environmental Quality Act Evaluation.....	3-1
3.1 Environmental Factors Potentially Affected.....	3-1
3.2 Determination	3-2
3.3 CEQA Environmental Checklist.....	3-3
3.3.1 Aesthetics.....	3-4
3.3.2 Agriculture and Forest Resources	3-7
3.3.3 Air Quality	3-9
3.3.4 Biological Resources	3-12
3.3.5 Cultural Resources	3-21
3.3.6 Energy.....	3-24
3.3.7 Geology and Soils.....	3-26
3.3.8 Greenhouse Gas Emissions.....	3-28
3.3.9 Hazards and Hazardous Materials.....	3-30
3.3.10 Hydrology and Water Quality.....	3-34
3.3.11 Land Use and Planning	3-39
3.3.12 Mineral Resources	3-40
3.3.13 Noise	3-41
3.3.14 Population and Housing.....	3-44
3.3.15 Public Services.....	3-45
3.3.16 Recreation	3-46
3.3.17 Transportation.....	3-47
3.3.18 Tribal Cultural Resources	3-50

3.3.19	Utilities and Service Systems	3-51
3.3.20	Wildfire	3-53
3.3.21	Mandatory Findings of Significance	3-54
Chapter 4	Community Outreach and Consultation and Coordination with Public Agencies	4-1
4.1	Community Outreach	4-1
4.2	Consultation and Coordination with Public Agencies.....	4-1
Chapter 5	List of Preparers and Reviewers	5-1
Chapter 6	Circulation List	6-1
6.1	Agencies	6-1
6.2	Elected Officials	6-1

List of Tables

Table 1-1.	Existing Conditions	1-3
Table 2-1.	Proposed Conditions	2-2
Table 4-1.	Consultation and Coordination with Public Agencies	4-1
Table 5-1.	List of Preparers and Reviewers	5-1

List of Figures

Figure 1-1.	Regional Location
Figure 1-2.	Project Location
Figure 1-3.	Yellow Creek Bridge Project Components
Figure 1-4.	Arroyo Seco Bridge Project Components
Figure 3-1.	Fire Hazard Severity Zones

List of Appendices

Appendix A	Figures
Appendix B	Summary of Project Features and Avoidance and Minimziation Measures
Appendix C	List of Technical Studies and References

List of Abbreviated Terms

AASHTO	American Association of State Highway and Transportation Officials
AMM	avoidance and minimization measure
BSA	Biological Study Area
BMP	best management practice
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCC Steelhead	Central California Coast Steelhead
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	<i>Code of Federal Regulations</i>
CH ₄	methane
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO ₂	carbon dioxide
CRLF	California Red-Legged Frog
dBA	A-weighted decibel
DPS	Distinct Population Segment
ESA	Environmentally Sensitive Areas
FTIP	Federal Transportation Improvement Program

List of Abbreviated Terms

GHG	greenhouse gas
IS/ND	Initial Study with Proposed Negative Declaration
L _{max}	highest sound level measured during a single noise event
MASH	<i>Manual for Assessing Safety Hardware</i>
MBGR	metal beam guardrail
MGS	Midwest Guardrail System
MLD	Most Likely Descendent
MRZ	Mineral Resource Zone
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
NESMI	Natural Environment Study Minimal Impact
NNI	new impervious surface
NRCS	National Resources Conservation Service
PA	Programmatic Agreement
PCB	dioxin-like polychlorinated biphenyls congener
PF	project feature
PM	post mile
PM _{2.5}	particulate matter with aerodynamic diameter equal to or less than 2.5 micrometers
PM ₁₀	particulate matter with aerodynamic diameter equal to or less than 10 micrometers
Project	State Route 121 Bridge Railing Upgrade Project

PQS	Professionally Qualified Staff
PS&E	plans, specifications, and estimates
ROW	right of way
RWQCB	(San Francisco Bay) Regional Water Quality Control Board
Section 106	Section 106 of the National Historic Preservation Act
SHOPP	State Highway Operation and Protection Program
SR	State Route
SSC	Species of Special Concern
SSP	standard special provision
SWHA	Swainson's Hawk
TMDL	Total Maximum Daily Load
TMP	Traffic Management Plan
EPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VMT	vehicle miles traveled
WEAT	worker environmental awareness training
WPCP	Water Pollution Control Program

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) 121 Bridge Railing Upgrade Project (Project) and has prepared this Initial Study with Proposed Negative Declaration (IS/ND). Yellow Creek Bridge (Bridge No. 20-0021) and Arroyo Seco Bridge (Bridge No. 20-0023) are located on SR 121 at Post Mile (PM) 6.52 and 8.43, respectively, in Sonoma County, California, (Figures 1-1 and 1-2 in Appendix A). Yellow Creek Bridge is located approximately 0.2 mile south of the intersection of SR 116 and Bonneau Road. Arroyo Seco Bridge is located approximately 1.6 miles east of the intersection of SR 116 and Bonneau Road. The approximately 1.91-mile stretch along SR 121 between Yellow Creek Bridge and Arroyo Seco Bridge is referred to herein as the “Project corridor.”

Caltrans proposes to upgrade the bridge railings at Yellow Creek Bridge (approximately 44 linear feet) (PM 6.52) and at Arroyo Seco Bridge (approximately 164 linear feet) (PM 8.43), widen Yellow Creek Bridge approximately 6 inches on each side (for a total of approximately 12 inches) and Arroyo Seco Bridge approximately 8 inches on each side (for a total of approximately 16 inches) to accommodate the updated bridge railings, remove the metal beam guardrail (MBGR) and alternative flared terminal systems, install Midwest Guardrail System (MGS) and alternative in-line terminal systems, construct concrete anchor blocks, and install vegetation control at Yellow Creek Bridge (which spans Yellow Creek) and Arroyo Seco Bridge (which spans Schell Creek) (Figures 1-3 and 1-4 in Appendix A).

The Project would be funded by the State Highway Operation and Protection Program (SHOPP) under Program Code 201.112 (Bridge Rail Replacement/Upgrade) for the 2023/2024 fiscal year. The SHOPP Program is California’s “fix-it-first” program, which funds the repair and preservation of the State Highway System, safety improvements, and some highway operational improvements. The Project total cost estimate, including capital and support costs, is approximately \$10,350,000.

1.2 Purpose and Need

The purpose of the Project is to upgrade the bridge railings to comply with the design and installation standards outlined in the American Association of State Highway and

Transportation Officials (AASHTO) *Manual for Assessing Safety Hardware* (MASH), thereby protecting the traveling public by enhancing the reliability of the bridge railings.

The Project is needed to comply with the design and installation standards outlined in the AASHTO MASH. Yellow Creek Bridge and Arroyo Seco Bridge were constructed in 1922 and 1923, respectively. The bridge railings, whose conditions are covered by the SHOPP Program, were inspected, and reports determined that the bridge railings are in poor condition. At Yellow Creek Bridge, the steel beneath the concrete baluster railing is exposed on the northern segment of the bottom horizontal rail member west of the southbound lane of SR 121 and the middle segment of the top horizontal rail member east of the northbound lane of SR 121 is missing. In addition, the bridges are also used by heavier vehicles that currently travel at higher speeds than at the time the bridges were constructed. Therefore, the bridge railings need to be upgraded to comply with the design and installation standards outlined in the AASHTO MASH. SR 121 is an important connector between SR 116 to the north, SR 12 to the north, and SR 37 to the south for local residents and businesses in unincorporated Sonoma County, as well as the only direct connector between the City of Sonoma to the north and County of Napa to the east. If not addressed, the poor conditions of the bridge railings have the potential to affect the safety of the traveling public.

1.3 Existing Facilities

Within the Project corridor, SR 121 is a two-lane undivided highway bordered by rural residential and agricultural land uses, and travel lanes are approximately 12 feet wide, with no shoulders and no designated pedestrian or bicycle facilities. Yellow Creek Bridge is approximately 22 feet long and its structure is approximately 28.50 feet wide. Arroyo Seco Bridge is approximately 82 feet long and its structure is approximately 25.33 feet wide. The bridge railings and end-treatments at Yellow Creek Bridge are concrete baluster bridge railings and alternative flared terminal systems, respectively, and, at Arroyo Seco Bridge, they are see-through 75 (ST-75) and alternative flared terminal systems, respectively. Table 1-1 summarizes the existing conditions at each bridge.

Table 1-1. Existing Conditions

Structure	Bridge No.	Post Mile	Lane Width (feet)	Shoulder Width (inches)	Structure Length (feet)	Structure Width (feet)	Bridge Railing Type	End-Treatment Type
Yellow Creek Bridge	20-0021	6.52	12	0	22	28.50	Concrete Baluster	Alternative Flared Terminal System
Arroyo Seco Bridge	20-0023	8.43	12	0	82	25.33	See-Through 75	Alternative Flared Terminal System

Chapter 2 Project Description

2.1 Introduction

Caltrans proposes to upgrade the bridge railings at Yellow Creek Bridge (approximately 44 linear feet) (PM 6.52) and at Arroyo Seco Bridge (approximately 164 linear feet) (PM 8.43) on SR 121 in Sonoma County, California. The Project would also include widening Yellow Creek Bridge approximately 6 inches on each side (for a total of approximately 12 inches) and Arroyo Seco Bridge approximately 8 inches on each side (for a total of approximately 16 inches), removing the MBGR and alternative flared terminal systems, installing MGS and alternative in-line terminal systems, constructing concrete anchor blocks, and installing vegetation control. The Project footprint encompasses the maximum extent of construction-related activities, including ground disturbance and staging areas, and is approximately 0.26 acre for Yellow Creek Bridge and 0.60 acre for Arroyo Seco Bridge.

2.2 Project Components

This section discusses Project components that would be constructed as part of the Project. Figure 1-3 in Appendix A shows the Project components at Yellow Creek Bridge and Figure 1-4 in Appendix A shows the Project components at Arroyo Seco Bridge. Table 2-1 summarizes the proposed conditions at each bridge.

2.2.1 Widen Bridges

The Project would widen Yellow Creek Bridge approximately 6 inches on each side (for a total of approximately 12 inches) and Arroyo Seco Bridge approximately 8 inches on each side (for a total of approximately 16 inches) to comply with the design and installation standards outlined in the AASHTO MASH. Widening the bridges would avoid narrowing the SR 121 travel lanes and would accommodate upgrading the bridge railings.

2.2.2 Upgrade Bridge Railings

The concrete baluster bridge railing at Yellow Creek Bridge would be upgraded with Type 85 concrete barriers with tubular handrailing. The MBGR at Arroyo Seco Bridge would be upgraded with California ST-75 bridge railing with tubular handrailing.

Table 2-1. Proposed Conditions

Structure	Bridge No.	Post Mile	Lane Width (feet)	Shoulder Width (inches)	Structure Length (feet)	Structure Width (feet)	Bridge Railing Type	End-Treatment Type
Yellow Creek Bridge	20-0021	6.52	12	0	22	29.50	Type 85 concrete barriers with tubular handrailing	Alternative In-Line Terminal System
Arroyo Seco Bridge	20-0023	8.43	12	0	82	26.67	California ST-75 bridge railing with tubular handrailing	Alternative In-Line Terminal System

2.2.3 Remove Metal Beam Guardrail and Alternative Flared Terminal System, and Install Midwest Guardrail System and Alternative In-Line Terminal System

The Project would remove MBGR along, and alternative flared terminal systems at the end of, the bridge approach and departure sections, and install MGS and alternative in-line terminal systems. The MGS would consist of either wood or steel posts, wood blocks, and steel guardrails. The design would be finalized during the plans, specifications, and estimates (PS&E) phase.

2.2.4 Construct Concrete Anchor Blocks

Concrete anchor blocks would be constructed within previously disturbed areas at both bridges to provide a transition element between the upgraded bridge railings and the MGS to be installed. The concrete anchor blocks may be constructed off the structures; in this case, new footings would be installed approximately 2 feet wide and 3 feet deep. The concrete anchor blocks would be between approximately 7 to 15 feet long, 2 feet wide, and 3 feet tall. The design would be finalized during the PS&E phase.

2.2.5 Install Vegetation Control

Vegetation control would be installed at the bridges in conjunction with the MGS. Fiber/rubber matting may be used as a vegetation control.

2.3 Construction Methodology

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

2.3.1 Construction Staging

Prior to the beginning of ground-disturbing activities at the bridges, which would occur in previously disturbed areas (i.e., ground-disturbing activities are not anticipated to occur in previously undisturbed areas), construction area signs, environmentally sensitive area fencing, and best management practices (BMPs) would be installed. Temporary debris catchment systems would be installed to contain and prevent demolition and construction debris from entering Yellow Creek below Yellow Creek Bridge and Schell Creek below Arroyo Seco Bridge. Temporary work platforms would be placed below the bridge deck overhangs.

The Project is anticipated to be constructed in three stages. The first stage would include closing the lane adjacent to the bridge railing being upgraded, restriping for

temporary one-way alternating traffic control, installing temporary barrier systems and temporary crash cushions along the centerline of SR 121, and installing temporary traffic signals along the approach sections. Staging areas would be established within the lane closed to traffic (i.e., within Caltrans ROW) for the overnight storage of equipment and materials. To maintain the use of SR 121 for the traveling public, the bridge railings would be upgraded one lane at a time. One-way alternating traffic control would keep the other lane open to the traveling public in both directions. Temporary traffic signals would stop the traveling public at either end of the bridge approach sections.

The second stage would include clearing and grubbing vegetation prior to removing the bridge railings, MBGR, and alternative flared terminal systems adjacent to the lane closed to traffic in both directions. The Project is not anticipated to require tree removal. The bridge railings would be upgraded, concrete anchor blocks would be constructed, MGS would be installed, and vegetation control would be installed. This construction methodology would then be repeated on the other side of SR 121, with the previously closed lane reopened.

The third stage would include removing temporary work platforms placed below the bridge deck overhangs, removing temporary debris catchment systems, removing BMPs, removing environmentally sensitive area fencing, and removing construction area signs; restriping; removing temporary barrier systems along the centerline of SR 121, temporary crash cushions, and temporary traffic signals along the approach sections; and reopening the closed lane to the traveling public.

2.3.2 Construction Schedule

Construction is anticipated to occur one bridge at a time. Ground-disturbing activities would be restricted to the dry season (i.e., between June 15 and October 31).

Construction is anticipated to take approximately 21 months, or 2 construction seasons, to complete. The Project is anticipated to require approximately 232 working days and occur between January 2025 and October 2026.

Construction is anticipated to require two weeks of nightwork to restripe for temporary one-way alternating traffic control, install temporary barrier systems and temporary crash cushions along the centerline of SR 121, remove the bridge railings, MBGR, and alternative flared terminal systems, and install MGS and alternative in-line terminal systems. Otherwise, construction-related activities would be limited to daytime hours.

2.3.3 Construction Equipment

Equipment may include, but would not be limited to, a utility truck, water truck, concrete truck, dump truck, street sweeper, pavement cutter, jack hammer, backhoe, excavator, crane, air compressor, portable power generator, and vacuum.

2.3.4 Utilities

The Project is not anticipated to require utility (e.g., gas, electric, telephone, cable, water, and sewer) relocations. Utility verification (i.e., potholing) would occur during the PS&E phase to confirm the need for utility relocations, and if needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers (e.g., Pacific Gas and Electric Company, American Telephone and Telegraph, and Verizon).

2.3.5 Right of Way

Construction-related activities, including staging areas, would occur within Caltrans ROW. The Project would not require ROW acquisition for the purposes of temporary construction easements or permanent drainage easements.

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

The Project is anticipated to receive a Biological Opinion from the U.S. Fish and Wildlife Service (USFWS) for California red-legged frog (*Rana draytonii*; CRLF). Approval of funding for the Project is required by the California Transportation Commission for each phase of the Project. No other permits, licenses, agreements, certifications, or approvals are anticipated to be required for the Project.

Chapter 3 California Environmental Quality Act Evaluation

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

3.1 Environmental Factors Potentially Affected

As part of the scoping and environmental analysis carried out for the Project, the following environmental factors were considered, but no impacts were identified: agriculture and forest resources, geology and soils, land use and planning, mineral resources, population and housing, recreation, utilities and service systems, and tribal cultural resources. The environmental factors checked below would be potentially impacted by the Project. Further analysis of these environmental factors is discussed in this chapter:

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

3.2 Determination

On the basis of this initial evaluation:

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

3.3 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the Project. In many cases, background studies performed in connection with projects will indicate that there are no impacts to a particular resource. A “NO IMPACT” answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not National Environmental Policy Act, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features (PFs) and avoidance and minimization measures (AMMs), which can include both design components of the Project and standardized measures that are applied to all, or most of, Caltrans projects, such as BMPs and measures included in the Standard Plans and Standard Specifications or as Standard Special Provisions, are considered to be an integral part of the Project and have been considered prior to any significance determinations documented in this section; refer to Sections 3.3.1 through 3.3.20 and Appendix B for a detailed discussion and summary, respectively, of these project features and AMMs. The annotations to this checklist summarized the information in this chapter to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please refer to Sections 3.3.1 through 3.3.20. This checklist incorporates by reference the information contained in Chapters 1 and 2.

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

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

3.3.1 Aesthetics

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR AESTHETICS

SR 121 in Sonoma County is listed as eligible for designation as a State Scenic Highway, from the intersection of SR 121 at SR 37 in Sears Point at the southern end, (PM 0.0) to the intersection of SR 121 at SR 12 in the City of Sonoma at the northern end (PM 7.5).

Yellow Creek Bridge, located at PM 6.52, is within the eligible Scenic Highway segment. Arroyo Seco Bridge, located at PM 8.43, is outside of the eligible Scenic Highway segment. The visual character throughout the Project corridor is highly scenic. At Yellow Creek Bridge, there is a private property sculpture garden immediately adjacent to, and east of, the northbound lane of SR 121. Scattered between the midground and the background are mature trees and rural buildings. The dominant views west of the southbound lane of SR 121 are of agricultural fields and vineyards. Yellow Creek Bridge is above the small Yellow Creek bed, which can be seen briefly and is lined with low grasses. Arroyo Seco Bridge spans Schell Creek, which can be seen briefly to the south when traveling on the eastbound lane of SR 121. Schell Creek is surrounded by mature trees that dominate the views and frame Schell Creek. When traveling on the westbound lane of SR 121, the views are agricultural land/vineyards with mature trees and rural vegetated hills in the background (Caltrans 2022a).

A Visual Impact Assessment was prepared by the Caltrans Office of Landscape Architecture (Caltrans 2022a). A summary of the findings is presented here.

a, b, and d) Less Than Significant Impact

The Project would present a low level of visual change in views to and from SR 121. Primary visual changes would occur from upgrading the bridge railings, removing MBGR and alternative flared terminal systems, and installing MGS and alternative in-line terminal systems. At both bridges, the upgraded bridge railings and installed MGS and alternative in-line terminal systems would increase the height of the bridge structures, which would reduce the visibility of the foreground roadside. Distant views to rural hills and vineyards would not change. The upgraded bridge railings would be see-through, preserve views to the maximum extent feasible, and help to reduce visual change.

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

Upon completion of construction-related activities, the character of SR 121 would be unchanged and visual impacts would be less than substantial. The primary item of work, the upgrading of bridge railings, would result in minor permanent visual changes. Other items of work would result in negligible to minor visual changes. Impacts to scenic resources in the Project corridor would be less than significant.

c) No Impact

The Project would not conflict with applicable zoning and other regulations governing scenic quality.

PROJECT FEATURES

Caltrans would incorporate standard PFs into the Project to reduce potential impacts to visual resources. PF-AES-1 through PF-AES-5 are discussed here and summarized in Appendix B.

- PF-AES-1, Temporary Fencing: Use temporary exclusion fencing to protect the roots and canopies of nearby trees from construction-related activities.

- PF-AES-2, Construction Equipment and Materials Storage: Construction equipment and materials should be stored in screened staging areas beyond the direct view of the traveling public and residential properties to the extent feasible.
- PF-AES-3, Nightwork: For nightwork, limit construction lighting to the Project footprints for construction-related activities, and use directional lighting, shielding, and other measures as needed to minimize light trespass to adjacent residences and to the traveling public.
- PF-AES-4, Vegetation Impacts and Protection: Reduce impacts to vegetation to the greatest extent possible while allowing the Project to be implemented. Vegetation to remain should be protected from construction activities by temporary fencing when vegetation is close to construction-related activities.
- PF-AES-5 Revegetate Disturbed Areas: Revegetate disturbed areas with regionally appropriate native seed mix.

AVOIDANCE AND MINIMIZATION MEASURES

AMM-AES-1 through AMM-AES-3, as discussed here and summarized in Appendix B, would avoid or minimize potential impacts to visual resources.

- AMM-AES-1, Tree Trimming: Where the trimming of trees is required to accommodate construction operations, trimming must be under the supervision of a certified arborist.
- AMM-AES-2, Staging Areas: Staging areas should not be located where they require the removal of vegetation or cause impacts to the roots of adjacent trees.
- AMM-AES-3, Concrete Color: Color treat concrete portions of bridge railings and anchor blocks to reduce visual change and maintain the consistency of the Project corridor. Consult the Caltrans Office of Landscape Architecture during the PS&E phase to coordinate the architectural treatments of Project components.

3.3.2 Agriculture and Forest Resources

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR AGRICULTURE AND FOREST RESOURCES

The Project is located along previously disturbed portions of SR 121 (i.e., ground-disturbing activities are not anticipated to occur in previously undisturbed areas), and the Project footprints are not located within farmland, forestland, or timberland (California Department of Conservation 2016 and 2019). While there are no Williamson Act contracts within the Project footprints, parcels west (Sonoma County Assessor’s Parcel Number [APN] 128-451-040) and east (Sonoma County APNs 128-461-065, 128-461-064) of Yellow Creek Bridge are designated as Farmland of Statewide Importance and Prime Farmland. Parcels north (Sonoma County APN 128-431-006) and south (Sonoma County APN 128-471-003) of Arroyo Seco Bridge are designated as Farmland of Statewide Importance, Prime Farmland, Farmland of Local Importance, Unique Farmland, and/or Other Land.

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

The Project would not affect agricultural land and would not convert Farmland to a non-agricultural use. The Project would not affect areas under a Williamson Act contract. The Project would not conflict with existing zoning for forest land or timberland, or convert forest land to non-forest use land, as there are no forest lands or timberlands within the Project footprints. The Project would not involve other changes in the existing environment that would result in conversion of forest or agricultural land. There would be no impact, as construction-related activities, including staging areas, would occur within Caltrans ROW.

3.3.3 Air Quality

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

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

CEQA SIGNIFICANCE DETERMINATIONS FOR AIR QUALITY

The Project is located in Sonoma County within the San Francisco Bay Area Air Basin under the jurisdiction of the Bay Area Air Quality Management District. Sonoma County is designated as in nonattainment for ozone and particulate matter, with aerodynamic diameter equal to or less than 2.5 micrometers (PM_{2.5}) under federal air quality standards (EPA 2022), and in nonattainment for ozone, PM_{2.5}, and particulate matter with aerodynamic diameter equal to or less than 10 micrometers (PM₁₀) under California state air quality standards (CARB 2019). It is in attainment or unclassified for other federal and state air quality standards.

a) No Impact

The Project would have temporary construction emissions and construction-related activities would comply with state and local regulations and policies. Emission reduction measures would be implemented as discussed under PF-AQ-1 through PF-AQ-3 and summarized in Appendix B to reduce construction emissions. The Project would not affect vehicle operation on SR 121 or nearby roadways when construction is complete. Long-term emission increases and adverse impacts from the Project are not anticipated. Therefore, the Project would not conflict with the region’s air quality plan. There would be no impact.

b, c, and d) Less Than Significant Impact

Upgrades to bridge rails would not alter characteristics of SR 121 and local roadways, increase operational capacity, or change the horizontal or vertical alignments of SR 121. No long-term impacts to air quality would occur.

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

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

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

PROJECT FEATURES

Caltrans would incorporate standard PFs into the Project to reduce potential impacts to air quality. PF-AQ-1 through PF-AQ-3 are discussed here and summarized in Appendix B.

- PF-AQ-1, Dust Control Measures: Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 121 affected by construction traffic, and covering soils or materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.

- PF-AQ-2, Construction Vehicles and Equipment: Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.
- PF-AQ-3, Limit Idling: Limit idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes.

3.3.4 Biological Resources

Would the project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR BIOLOGICAL RESOURCES

A Natural Environmental Study Minimal Impact (NESMI) was prepared by the Caltrans Office of Biological Sciences and Permits to evaluate the effects of the Project on biological resources, including sensitive plants and wildlife species (Caltrans 2022h). A summary of the findings is presented here.

The Biological Study Area (BSA) encompasses the Project footprints and areas immediately adjacent to the bridges (Project area). The Yellow Creek Bridge BSA is approximately 0.26 acre and the Arroyo Seco Bridge BSA is approximately 0.60 acre, for a total of approximately 0.86 acre. The BSA primarily encompasses roadsides dominated by ruderal species, with developed, landscaped, and agricultural areas such as vineyards along either side of SR 121. Riparian habitat does not occur within the banks of Yellow Creek in the approximately 0.26-acre BSA for Yellow Creek Bridge; however, riparian habitat occurs within the banks of Schell Creek in the

approximately 0.60-acre BSA for Arroyo Seco Bridge. The 0.86-acre BSA does not contain any wetlands.

A regional list of special-status wildlife and plant species was compiled using databases to evaluate the potential impacts that could occur to sensitive biological resources as a result of the Project. The database search included: the California Natural Diversity Database (CNDDDB) (CDFW 2022), the USFWS Information for Planning and Consultation Database (USFWS 2022), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2022), and the National Oceanographic and Atmospheric Administration National Marine Fisheries Service database (NOAA Fisheries 2022). The special-status plant and animal species on the regional lists were evaluated to determine their potential to occur within the Project area.

a) Less Than Significant Impact

With implementation of PF-BIO-1 and AMM-BIO-1 through AMM-BIO-7, as summarized in Appendix B, the Project would have a less than significant impact, either directly or through habitat modification, on any identified candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife (CDFW), USFWS, or NOAA Fisheries.

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

Animals

California Red-Legged Frog: CRLF is a federally threatened species and a California Species of Special Concern (SSC). The Project is located outside of critical habitat and any designated recovery units. Suitable breeding habitat was not identified within the Project area because of the lack of sufficient water depth and duration of inundation by water. However, the Project area has the potential to provide upland dispersal habitat in the wet season because of its proximity to Sonoma Creek and its tributaries, which have assumed potential to serve as breeding areas for CRLF. The Project is located within the current known range of CRLF, and there are 4 CNDDDB occurrences within a 5-mile radius of the BSA.

Potential Project impacts include loss of individuals during vegetation removal, removal of MBGR and alternative flared terminal systems, and installation of MGS, alternative in-line terminal systems, temporary work platforms, and debris catchment

systems. The removal of MBGR and alternative flared terminal systems, and installation of MGS and alternative in-line terminal systems would permanently impact approximately 0.03 acre of upland dispersal habitat. However, impacts to suitable upland dispersal habitat during and immediately after construction are not anticipated to affect the upland dispersal habitat's long-term suitability to support CRLF should CRLF occur in the Project area in the future.

Implementation of PF-BIO-2 through PF-BIO-4 and AMM-BIO-1 through AMM-BIO-7, as summarized in Appendix B, would reduce, avoid, or minimize impacts to CRLF and its habitat. The impact would be less than significant.

Central California Coast (CCC) Steelhead: The CCC Distinct Population Segment (DPS) of steelhead (*Oncorhynchus mykiss*) (CCC steelhead) is a federally threatened species. CCC steelhead consists of all steelhead runs from the Russian River in Sonoma County south to Aptos Creek in Santa Cruz County, and includes all steelhead spawning in streams that flow into the San Francisco Bay.

There is one CNDDDB occurrence within a 5-mile radius of the BSA. The occurrence is in Huichica Creek approximately 3.75 miles east of the Project. A site visit conducted in August 2021 confirmed that Schell Creek provides suitable habitat for CCC steelhead. Yellow Creek was not identified as suitable habitat for CCC steelhead because of low water, large amounts of vegetation within Yellow Creek, and the lack of connectivity to suitable waterways and the San Pablo Bay. Designated critical habitat is present within Schell Creek, beneath the Project footprint at Arroyo Seco Bridge. NOAA Fisheries confirmed CCC steelhead have occurred in Schell Creek.

Construction-related activities would not occur within Yellow Creek and Schell Creek. Temporary debris catchment systems would be installed to contain and prevent demolition and construction debris from entering Yellow Creek below Yellow Creek Bridge and Schell Creek below Arroyo Seco Bridge. The Project would have no direct impacts to CCC steelhead during construction. Ground-disturbing activities would be restricted to the dry season (i.e., between June 15 and October 31) to further reduce impacts to CCC steelhead.

Implementation of PF-BIO-2 through PF-BIO-4, AMM-BIO-5, and AMM-BIO-7, as summarized in Appendix B, as well as installation of temporary debris catchment systems, would reduce, avoid, or minimize impacts to CCC steelhead and its habitat. The impact would be less than significant.

Western Pond Turtle: The western pond turtle (*Emys marmorata*; WPT) is a California SSC. There is no breeding habitat and there are no ponds located within the BSA. Presence within the BSA is inferred because suitable habitat is present within the BSA and in creeks, ditches, and drainages nearby. There are five occurrences of WPT within a 5-mile radius of the BSA, including one occurrence approximately 0.80-mile north of Arroyo Seco Bridge. In addition, a dead adult was observed near SR 121, adjacent to the Project area.

Potential Project impacts include potential loss of individuals during vegetation removal, MBGR and alternative flared terminal systems removal, and MGS and alternative in-line terminal system installation.

Implementation of PF-BIO-2 through PF-BIO-4, AMM-BIO-5, and AMM-BIO-7, as summarized in Appendix B, would reduce, avoid, or minimize impacts to the WPT and its habitat. The impact would be less than significant.

Swainson's Hawk: The Swainson's hawk (*Buteo swainsoni*; SWHA) is a California state threatened species. The Project is located within its current known range, and there is one CNDDDB occurrence between the bridges where a pair of SWHA were observed defending territory. However, a nest was not located and the Project is outside its core breeding range. In addition, nesting in the Project area is not anticipated. SWHA was not observed nesting in trees within the Project corridor during informal surveys, which occurred in April 2021 and April 2022.

Implementation of PF-BIO-1, AMM-BIO-5, and AMM-BIO-7, as summarized in Appendix B, would reduce, avoid, or minimize impacts to SWHA. Temporary visual and noise changes that occur near suitable foraging habitat have the potential to result in indirect impacts to SWHA because the changes may cause SWHA to avoid the Project area while foraging. Potential Project impacts are anticipated to be minimal, temporary, or indirect. The impact would be less than significant.

b) Less Than Significant Impact

The Project would not have a substantial adverse effect on riparian habitat or environmentally sensitive natural communities. The Project is not anticipated to require tree removal. Project activities would include vegetation clearing and grubbing; however, there is no anticipated loss of permanent riparian habitat. Implementation of PF-BIO-2 through PF-BIO-4 and AMM-BIO-7, as summarized in Appendix B, would reduce, avoid, or minimize impacts to riparian habitat or

environmentally sensitive natural communities. The impact would be less than significant.

c) No Impact

There are no wetlands under federal or state jurisdiction present within the BSA; therefore, there would be no impact.

d) No Impact

The Project would not construct barriers to wildlife movement or interfere with established native resident or migratory wildlife corridors. The Project is not anticipated to affect any habitat's long-term suitability to support wildlife corridors or other animal movements in the future. Ground-disturbing activities would not occur within Yellow Creek and Arroyo Seco Creek. The Project would not create barriers to fish movement. The Project would not impede the use of native wildlife nursery sites. There would be no impact.

e) No Impact

The Project would not conflict with any local policies or ordinances protecting biological resources. The Project is not anticipated to require tree removal. There would be no impact.

f) No Impact

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

PROJECT FEATURES

Caltrans would incorporate standard PFs into the Project to reduce potential impacts to biological resources. PF-BIO-1 through PF-BIO-4 are discussed here and summarized in Appendix B.

- PF-BIO-1, Preconstruction Surveys for Nesting Birds: If clearing and grubbing vegetation would occur between February 1 and September 30, a biological monitor would conduct preconstruction surveys for nesting birds within the ground areas to be disturbed prior to beginning construction-related activities. The survey would include a perimeter buffer of approximately 50 feet for non-game

migratory birds and approximately 300 feet for raptors. All nest avoidance requirements of the Migratory Bird Treaty Act, USFWS, and CDFW Codes would be observed. If an active nest is found, an appropriate protection buffer would be established until the young fledge. USFWS and/or CDFW would be contacted if a special-status species is discovered within the Project footprints within 24 hours.

- PF-BIO-2, Delineated Construction Areas, Environmentally Sensitive Areas, and Equipment and Material Storage Sites: A biological monitor would delineate construction areas, environmentally sensitive areas (ESAs), and equipment materials and storage sites. ESAs are areas containing sensitive habitats adjacent to or within the Project footprints, in which ground-disturbing activities are not allowed. ESAs would be delineated on the final Project plans. A biological monitor would be onsite to direct the installation of high-visibility, orange ESA fencing to prevent the encroachment of construction personnel, materials, and equipment into ESAs during construction-related activities, as needed. Construction equipment and materials would be stored outside of designated ESAs, as specified by a biological monitor, to avoid construction-related impacts to natural communities. At the discretion of the biological monitor, ESA fencing would be removed when construction is no longer active in the delineated construction areas.
- PF-BIO-3, Construction Site Best Management Practices: Construction BMPs for biological resources may include, but are not limited to, the following:
 - Construction vehicles would be restricted to SR 121 and delineated construction areas. Construction vehicles would observe a 15-mile-per-hour speed limit within the Project footprints, except when on the SR 121 travel lanes.
 - Construction access, staging, storage, and parking areas would be delineated outside of designated ESAs within the Project footprints and limited to the minimum area necessary to construct the Project.
 - All construction-related waste, such as wrappers, cans, bottles, and food scraps, would be disposed of, or recycled, in closed containers and removed at least once daily from the Project footprint.
 - All pets would be prohibited from entering the Project area.

- Firearms would be prohibited within the Project area, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.
- PF-BIO-4, Noxious Weeds: Noxious weeds would be controlled 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-approved landscape architect.

AVOIDANCE AND MINIMIZATION MEASURES

AMM-BIO-1 through AMM-BIO-7, as discussed here and summarized in Appendix B, would avoid or minimize impacts to biological resources.

- AMM-BIO-1, Proper Use of Erosion Control Devices: To prevent CRLF from becoming entangled or trapped in erosion control devices, plastic monofilament netting (i.e., erosion control matting) or similar material would not be used within the Project footprints. Acceptable substitutes would include coconut coir matting or tackified hydroseeding compounds.
- AMM-BIO-2, Preconstruction Surveys for California Red-Legged Frog: Preconstruction surveys would be conducted by a USFWS-approved biological monitor. Visual surveys would be conducted immediately prior to the beginning of ground-disturbing activities. Suitable breeding and dispersal habitat within the Project footprints includes refugia habitat (such as in or under shrubs, downed logs, small woody debris, and burrows), which would be inspected. If an individual is observed, it would be evaluated and relocated in accordance with the observation and handling protocols outlined in AMM BIO-5. Fossorial mammal burrows would be inspected for signs of CRLF usage to the maximum extent practicable. If it is determined that a fossorial mammal burrow may be occupied by a CRLF, USFWS would be contacted within 24 hours and work would be stopped within a 50-foot radius of the fossorial mammal burrow by the USFWS-approved biological monitor.
- AMM-BIO-3, Biological Monitoring: A USFWS-approved biological monitor would be present onsite during construction-related activities that have the potential to result in take of CRLF to monitor for CRLF. The USFWS-approved biological monitor may stop work if deemed necessary for any reason to protect CRLF and would advise the Resident Engineer (RE) or designee on how to proceed accordingly.

- AMM-BIO-4, Timing of Construction: Ground-disturbing activities would be restricted to the dry season (i.e., between June 15 and October 31) and when CRLF are anticipated to be estivating in moist refuges and not dispersing through the Project area).

Construction-related activities would not occur during rain events or within 24 hours following a rain event. Prior to resuming construction-related activities, a USFWS-approved biological monitor would inspect the construction area and construction vehicles, equipment, and materials stored onsite for the presence of CRLF. CRLF would be allowed to move away from the construction area of their own volition or would be moved by the USFWS-approved biological monitor.

- AMM-BIO-5, Discovery of a Special-Status Species: The biological monitor would have the authority to halt work through coordination with the RE in the event that a special-status species is discovered in an active construction area or might otherwise be at risk. The RE would ensure construction-related activities remain suspended in any construction area where the biological monitor has determined that the special-status species could be harmed. For CRLF, work may resume when the individual moves away from the construction area of its own volition or is moved out of harm's way by a USFWS-approved biological monitor. For other federally and state listed species, USFWS and/or CDFW would be contacted on how to proceed before work is allowed to resume.
- AMM-BIO-6, Construction Materials Storage: For onsite storage of construction materials that could provide shelter for CRLF, an open top trailer would be used to elevate the construction materials above the ground surface to reduce the potential for CRLF to climb into the construction materials.
- AMM-BIO-7, Worker Environmental Awareness Training: Construction personnel would attend a mandatory worker environmental awareness training (WEAT) delivered by a qualified biologist prior to beginning construction. WEAT would provide information on special-status species and the construction personnel's responsibility in reducing, avoiding, or minimizing impacts to special-status species during construction. At a minimum, WEAT would include a description of special-status species and migratory birds that may occur in the Project area; a discussion of the potential occurrence of special-status species within the Project footprints; an explanation of the status of special-status species and protection measures under federal and state laws and regulations; and the

description of avoidance or minimization measures to be implemented to conserve special-status species and their habitats as they relate to the Project. Information on special-status species would be provided to construction personnel, along with compliance reminders and relevant contact information. Documentation of WEAT and sign-in sheets would be kept on file and available on request.

3.3.5 Cultural Resources

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

A Section 106 Screening Memorandum was prepared by the Caltrans Office of Cultural Resource Studies (Caltrans 2022e). The investigation was performed by a Caltrans archaeologist and architectural historian who are Professionally Qualified Staff (PQS) for prehistoric archaeology and architectural history. A summary of the findings is presented here.

There were no identified sacred sites in the Project footprints. To comply with Assembly Bill 52, Caltrans initiated consultation with Native American tribes and individuals. Letters were sent on February 24 and July 22, 2021. To date, no responses have been received.

Caltrans’ PQS staff conducted a literature review of the Caltrans Cultural Resource Database, as-built plans, aerial photographs, and maps. Yellow Creek Bridge and Arroyo Seco Bridge are both identified in the Caltrans bridge inventory as Category 5 bridges that are not eligible for the National Register of Historic Places. No further cultural resources study was required for the built environment resources. An archaeological pedestrian survey was performed by Caltrans PQS on June 28, 2021, with negative results.

Based on the literature review and the archaeological survey, Caltrans determined that the Project has no potential to affect cultural resources.

a and b) No Impact

There are no cultural resources in the Project area. Therefore, there would be no impact.

c) Less Than Significant Impact

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

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

Implementation of PF-CULT-1 and PF-CULT-2, as summarized in Appendix B, would reduce the impact to cultural resources to less than significant.

PROJECT FEATURES

Caltrans would incorporate standard PFs into the Project to reduce unanticipated impacts to cultural resources. PF-CULT-1 and PF-CULT-2 are discussed here and summarized in Appendix B.

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

- If buried cultural materials are encountered during construction, work would be stopped until a qualified archaeologist can evaluate the nature and significance of the find. The need for archaeological and Native American monitoring during the remainder of the Project would be reevaluated by Caltrans and a qualified archaeologist as part of the treatment measure determination. The archaeologist would consult with appropriate Native American representatives in determining suitable treatment for unearthed cultural resources if the resources are Native American in nature.
- PF-CULT-2, Stop Work: Stop potentially damaging work within a 100-foot radius if human remains are uncovered during construction, have a qualified archaeologist assess the significance of the find, and pursue appropriate management.

3.3.6 Energy

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR ENERGY

An Energy Analysis Report was prepared by the Caltrans Office of Environmental Engineering (Caltrans 2022d). A summary of the findings is presented here.

a) Less Than Significant Impact

Activities that consume energy generate byproducts. Greenhouse gases (GHGs) are the most extensively studied byproducts of energy consumption because they are linked to climate change. To assess energy consumed by construction vehicles and equipment, the Caltrans-developed Construction Emissions Tool 2020 (CAL-CET 2020), version 1.0, was used to quantify carbon dioxide (CO₂) emissions. The U.S. Environmental Protection Agency’s (EPA’s) GHG equivalencies formulas were used to convert CO₂ to fuel volumes. It was assumed diesel would be used for all construction vehicles and equipment (Caltrans 2022d). Construction vehicles and equipment are anticipated to consume approximately 34,577.6 gallons during construction of the Project (Caltrans 2022c).

During construction, PF-ENERGY-1 and PF-ENERGY-2, as summarized in Appendix B, would be implemented to improve energy efficiency of construction equipment. In addition, implementation of PF-AQ-2 and PF-AQ-3, as discussed in Section 3.3.3 and summarized in Appendix B, would also improve energy efficiency and reduce energy consumption by Project construction.

Construction-related activities would be short term and would not increase operational capacity or otherwise alter long-term vehicle traffic that have the potential to affect energy use. During Project operation, energy consumption would be limited to routine maintenance activities that are anticipated to be similar to existing conditions. Therefore, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction and operation. The Project would have a less than significant impact.

b) No Impact

The purpose of the Project is to upgrade bridge railings to current safety standards. As such, the Project would not result in change in traffic volumes, vehicle mix, or other factors that would cause an increase in energy consumption of the Project. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with a state or local plan for renewable energy or energy efficiency. Therefore, the Project would not conflict with the regional/statewide goals on renewable energy or energy efficiency. There would be no impact.

PROJECT FEATURES

Caltrans would incorporate standard PFs into the Project to reduce potential impacts to energy. PF-ENERGY-1 and PF-ENERGY-2 are discussed here and summarized in Appendix B.

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

3.3.7 Geology and Soils

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR GEOLOGY AND SOILS

A Geologic and Paleontologic Analysis was prepared by the Caltrans Office of Geotechnical Design—West (Caltrans 2022g). A summary of the findings is presented here.

The Project includes replacement of bridge railings at Yellow Creek Bridge and Arroyo Seco Bridge. Both bridges are located within the central portion of the Coast Ranges Geomorphic Province of California. The dominant feature of the province is the San Andreas Fault, an approximately 800-mile-long fault zone that forms the dividing line between major tectonic plates, with the Pacific Plate situated west of the San Andreas Fault and the North American Plate situated east of the San Andreas Fault. The Project is located approximately 25 miles east of the San Andreas Fault (Bryant 2002).

The undifferentiated Quaternary moderately constrained Bennett Valley fault zone is located approximately 1 mile west of Yellow Creek Bridge (Bryant 2017). The

Rodgers Creek Fault, a continuously active fault zone that extends approximately 30 miles to the northern margin of San Pablo Bay, is located approximately 2.5 miles west of Yellow Creek Bridge (Hart 1998) and the active West Napa fault is located approximately 7 miles east of Arroyo Seco Bridge (Caltrans 2022g).

In general, the Coast ranges consist of complexly folded Mesozoic and Cenozoic sedimentary, metamorphic, and volcanic rock. Both bridges are constructed on engineered (artificial) fill overlying Quaternary (Latest Pleistocene to Holocene) alluvial sand, gravel, silt, and clay deposits (Graymer 2002, Wagner 2002).

Soils adjacent to the bridges are mapped as Riverwash (RnA) and Zamora silty clay loam (ZaA), respectively. General information on these soils was obtained from the National Resources Conservation Service (NRCS) web soils survey and official soil series descriptions (NRCS 2022).

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

The Project would be subject to strong ground shaking from nearby faults. However, the Project would upgrade the bridge railings within previously disturbed ground (embankment fills and highway prism). The Project does not lie within an Alquist-Priolo Special Studies Zone and would not experience hazards from fault rupture, nor would the Project expose the public to other seismic hazards, such as liquefaction or seismically induced landslides.

Ground-disturbing activities would occur in previously disturbed areas; however, Project components would not be constructed in areas of soft, erodible, expansive, or collapsible soils, and BMPs would be used to minimize erosion during construction activities.

The Project is not located on a geologic or soil unit that is unstable, and no septic tanks or alternative wastewater delivery systems would be constructed or affected by the Project. In addition, no sensitive paleontologic resources would be encountered (Caltrans 2022g). Therefore, no impact would occur.

3.3.8 Greenhouse Gas Emissions

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR GREENHOUSE GAS EMISSIONS

a) Less Than Significant Impact

Construction-generated GHGs include emissions resulting from construction equipment, workers commuting to and from the Project, and traffic delays due to construction of the Project. The emissions would be produced at different rates throughout the Project, depending on the construction-related activities occurring in the three phases of construction. CO₂ is a more important GHG pollutant due to its abundance when compared with other GHG emitted from vehicles and equipment, including methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbon, and black carbon.

A Construction Greenhouse Gas Emissions Analysis was prepared by the Caltrans Office of Environmental Engineering (Caltrans 2022c). A summary of the findings is presented here. The construction-related GHG emissions were calculated using the Caltrans CAL-CET 2020 tool. The Project is anticipated to emit approximately 352 tons of CO₂, 0.011 ton of CH₄, 0.019 ton of N₂O, and 325 metric tons of carbon dioxide equivalent (CO₂e) during construction (Caltrans 2022c). The Project would not increase operational capacity and therefore would not generate long-term GHG emissions.

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

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

b) No Impact

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

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

3.3.9 Hazards and Hazardous Materials

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR HAZARDS AND HAZARDOUS MATERIALS

Two residential and/or light commercial properties are located approximately 320 feet southeast of Yellow Creek Bridge. Two residential properties are located approximately 500 feet west of Arroyo Seco Bridge. SR 121 is a public highway, with motorists and bicyclists frequently traveling along the route.

a and b) Less Than Significant Impact

Upgrading the bridge railings at Yellow Creek Bridge and Arroyo Seco Bridge would not involve the routine transport or use of hazardous materials when the Project becomes operational. During construction, Caltrans' Standard Specifications would be implemented to prevent spills or leaks from construction equipment and from storage of fuels, lubricants, and solvents. All aspects of Project construction associated with removal, storage, transportation, and disposal of hazardous materials would be done in accordance with the appropriate California Health and Safety Code. Handling of hazardous materials would comply with Caltrans Standard

Specification 14-11, Hazardous Waste and Contamination, which outlines handling, storage, and disposal of hazardous waste.

The Caltrans Office of Environmental Engineering requires the Project to conduct surveys that would screen the bridges for asbestos-containing materials and lead-based coatings prior to construction (Wilson 2022). The concrete railings on Yellow Creek Bridge would require structural concrete to be screened for asbestos fiber prior to demolition. If elevated levels of hazardous materials are identified during surveys, the appropriate standard special provisions (SSPs) would be taken, including required notification of the Bay Area Air Quality Management District, to safely and thoroughly remove, transport, and dispose of the materials at an appropriate offsite waste facility.

The lack of operational impacts from hazardous materials, along with compliance with Caltrans' Standard Specifications and SSPs, would reduce the potential construction impacts caused by the transportation, use, and disposal of hazardous materials or an accidental release of hazardous materials to a less than significant level.

c) No Impact

No existing or proposed school is within 0.25 mile of Yellow Creek Bridge or Arroyo Seco Bridge. The nearest existing school is The Presentation School (private), approximately 2 miles northwest of Arroyo Seco Bridge. Further, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste during operation. No impacts to schools would result from the Project.

d) No Impact

Screening of environmental regulatory databases, including the State Water Resources Control Board's GeoTracker and California Department of Toxic Substances Control's EnviroStor, revealed no known hazardous materials or hazardous waste sites in the immediate vicinity of Yellow Creek Bridge or Arroyo Seco Bridge. A Leaking Underground Storage Tank Cleanup Site case, located approximately 550 feet north of Yellow Creek Bridge, has been closed as of July 2012 (RB Case # 49-0313, Loc Case # 00005026) (SWRCB 2022).

The Project is not located on a site that is included on hazardous materials sites compiled pursuant to Government Code Section 65962.5. The nearest case involving known hazardous materials or hazardous waste release (RB Case # 49-0313, Loc Case # 00005026) has been cleaned up and the case has been closed for approximately 10 years. Therefore, no impact would result from the Project.

e) No Impact

Two airports are within 2 miles of the Project. The Sonoma Valley Airport, located approximately 0.5 mile southeast of Yellow Creek Bridge, is a privately owned facility used by antique and aerobatic aircrafts. The Project is located within Sonoma Valley Airport's Referral Area Boundary identified in the *Sonoma County Comprehensive Airport Land Use Plan* (Sonoma County 2001).

The Sonoma Skypark Airport is a public-use airport located approximately 0.75 mile north of Arroyo Seco Bridge. The Project is located within the Sonoma Skypark Airport's Referral Area Boundary (Sonoma County 2001).

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

f) Less Than Significant Impact

The Project would require the temporary closure of traffic lanes along SR 121. Potential localized delays to traffic along SR 121 would result from the temporary lane closures and one-way alternating traffic control during construction. A Traffic Management Plan (TMP) as discussed in Section 3.3.17 and summarized in Appendix B, would be prepared prior to the beginning of construction, and would identify traffic delays and alternative routes. Emergency service response times are not anticipated to change during construction because the TMP would provide priority to emergency vehicles during traffic control. The TMP would include instructions for response or evacuation in the event of an emergency, such as an earthquake or wildfire. In addition, the Project would not conflict with the Sonoma County Emergency Operation Plan (Sonoma County 2022b) or other emergency response or evacuation plans. The impact on adopted emergency response plans or emergency evacuation plans caused by the Project would be less than significant.

g) Less Than Significant Impact

Immediately west of the Yellow Creek Bridge is a California Department of Forestry and Fire Protection (CAL FIRE)-designated Moderate Fire Hazard Severity Zone (State Resource Area). The Arroyo Seco Bridge is not within a designated Fire Hazard Severity Zone (CAL FIRE 2022a).

The Sonoma Valley Fire District, which serves the Project area, is responsible for emergency services and the management of fire operations during emergency response efforts. The nearest Sonoma Valley Fire District station is located at 630 2nd Street, approximately 3.9 miles north of Yellow Creek Bridge and approximately 3.2 miles northwest of Arroyo Seco Bridge.

In addition, the Schell Vista Fire Protection District is a volunteer fire department serving the Project area. The nearest Schell Vista Fire Protection District station is located at 22950 Broadway, approximately 1.0 mile east of Yellow Creek Bridge and approximately 0.8 mile west of Arroyo Seco Bridge.

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

3.3.10 Hydrology and Water Quality

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR HYDROLOGY AND WATER QUALITY

A Water Quality Study was prepared by the Caltrans Office of Water Quality (Caltrans 2022f) and a Hydraulics Memorandum was prepared by the Caltrans Office of Hydraulic Engineering (Caltrans 2022b). A summary of their findings are presented here.

The Project is located within the jurisdiction of Region 2 of the San Francisco Bay Regional Water Quality Control Board (RWQCB), which is responsible for the implementation and enforcement of state laws and regulations concerning water quality. Yellow Creek Bridge and Arroyo Seco Bridge span Yellow Creek and Schell Creek, respectively. The Project is within the San Pablo Hydrologic Unit. Yellow Creek is located in the Petaluma River-Frontal San Pablo Bay Estuaries Watershed and the Tolay Creek-Frontal San Pablo Bay Estuaries Sub-Watershed. Schell Creek is located in the Carneros Creek-Frontal San Pablo Bay Estuaries Watershed and the

Schell Creek-Frontal San Pablo Bay Estuaries Sub-Watershed north of SR 121 and the San Pablo Bay Watershed and San Pablo Bay Estuaries Sub-Watershed south of SR 121 (Caltrans 2022j).

Yellow Creek and Schell Creek are tributaries to Sonoma Creek, which eventually discharges south into San Pablo Bay. Schell Creek drains through a series of interconnected sloughs downstream of SR 121 prior to draining into Sonoma Creek.

Sonoma Creek and San Pablo Bay are included as beneficial uses as part of the Region 2 RWQCB Basin Plan and are classified as impaired water bodies under the 2014-16 California Clean Water Act Section 303(d) List (State Water Resources Control Board (SWRCB 2017)). Sonoma Creek is listed as impaired for nutrients and pathogens, and San Pablo Bay is listed as impaired for Mercury, Selenium, and dioxin-like polychlorinated biphenyls congeners (PCBs). Sonoma Creek has Total Maximum Daily Loads (TMDLs) for sedimentation/siltation and pathogens. San Pablo Bay has TMDLs for mercury and PCBs under the greater San Francisco Bay TMDL and a selenium TMDL under the greater North San Francisco Bay TMDL (SWRCB 2006).

The anticipated disturbed-soil area is approximately 0.05 acre, and the anticipated new impervious surface (NNI) is approximately 0.05 acre. No replaced impervious surface is anticipated and therefore the net new impervious is anticipated to be approximately 0.05 acres.

Per Federal Emergency Management Agency (FEMA) mapping, Yellow Creek Bridge is located in Zone A (100-year) floodplain. This means that no detailed analysis has been completed and no base flood elevations have been calculated. Arroyo Seco Bridge is located in Zone AE floodplain, within a Regulatory Floodway (FEMA 2020). Zone A and Zone AE floodplains are Special Flood Hazard Areas that have a 1-percent-annual-chance flood hazard. A Regulatory Floodway indicates a water course and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

The Project location may be subject to tidal influence from current and/or future sea-level rise as provided in the State of California Sea-Level Rise Guidance, 2018 Update (California Ocean Protection Council 2018). However, a discussion of climate change, including potential sea-level rise, was not considered due to the limited nature of the work related to the Project, the purpose of which is to upgrade the

bridge railings to comply with the design and installation standards outlined in the AASHTO MASH. Climate change and future sea-level rise would be considered through the environmental evaluation process of future Projects scoped to address these issues on SR 121 in the Project limits.

a) Less Than Significant Impact

The Project has the potential to contribute stormwater runoff and pollutants to Yellow Creek and Schell Creek, and eventually Sonoma Creek and San Pablo Bay, during construction-related activities. Temporary construction-related water quality impacts may include, but are not limited to, the following:

- Ground-disturbing activities
- Concrete curing and waste
- Bridge railing removals
- Vegetation removal
- Oil and grease from construction vehicles and equipment
- Sanitary wastes and other waste material
- Chemicals used for construction equipment and restriping

Implementation of Caltrans construction site BMPs and design pollution prevention temporary construction BMPs listed under PF-HYD-1, as summarized in Appendix B, would prevent and minimize temporary impacts to water quality and facilitate adherence to the applicable TMDLs.

In addition, the disturbed soil area does not exceed 1 acre and therefore the Project is not subject to the Construction General Permit and is not expected to result in long-term impacts to water quality standards or exceed waste discharge requirements. To comply with the conditions of the Caltrans National Pollutant Discharge Elimination System (NPDES) permit and to further reduce impacts associated with water quality and hydrology, a Water Pollution Control Program (WPCP) would be completed and implemented prior to the beginning of construction. Potential water quality impacts would be reduced to the maximum extent practicable through proper implementation of the WPCP and inclusion of the SSPs for Temporary Construction Site BMPs in the Project. As a result, Project impacts would be less than significant.

b) No Impact

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

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

The Project would not alter the drainage pattern and no drainage work is anticipated (Caltrans 2022b). As discussed for item b), implementation of Caltrans construction site BMPs, PF-HYD-1, and PF-HYD-2, as summarized in Appendix B, would minimize erosion, siltation, and the discharge of polluted runoff on- or offsite. The anticipated NNI for the Project is approximately 0.05 acre and would result in a slight increase in runoff. This minimal increase in runoff would not be substantial enough to increase flooding on- or offsite, nor would it impede or redirect flood flows. The capacity of the bridges would not be significantly impacted as a result of the slight increase in runoff from the Project. Therefore, the impact would be less than significant.

d) No Impact

The Project is located within a seiche and Special Flood Hazard Area (Sonoma County 2006). However, as discussed in items a) and c), the Project would not contribute new substantial sources of runoff or pollutants, or result in increased flooding. Because of the limited nature of the work at the bridges, no floodplain impacts are anticipated. In the case of Project inundation, the release of substantial pollutants is not anticipated. The Project is not located in a tsunami zone (California Department of Conservation 2020).

e) No Impact

With implementation of Caltrans standard construction site BMPs, PF-HYD-1, and PF-HYD-2, the Project would not conflict with, or obstruct, implementation of a water quality control plan or suitable groundwater management plan.

PROJECT FEATURES

Caltrans would incorporate standard PFs into the Project to reduce potential impacts to hydrology and water quality. PF-HYD-1 and PF-HYD-2 are discussed here and summarized in Appendix B.

- PF-HYD-1, Construction and Implementation of Best Management Practices: Erosion control BMPs would be included in the final Project plans and SSPs would be included in the final construction package to comply with the conditions of the Caltrans NPDES permit. The Caltrans BMP Guidance Handbook would provide guidance for provisions to be included in the construction contract for measures to protect ESAs and avoid or minimize stormwater and non-stormwater discharges. Construction BMPs for stormwater may include, but are not limited to, the following:
 - Construction tracking control practices
 - Job site management
 - Sediment control (fiber rolls and silt fencing)
 - Waste management and materials pollution control
 - Materials stockpile management
 - Dust and wind erosion controls
 - Drainage inlet protection
 - Non-stormwater management
 - Water quality monitoring
 - Maintaining and tuning construction vehicles and equipment approximately 50 feet away from Yellow Creek and Schell Creek
 - Locating designated fueling areas approximately 50 feet from downslope drainage facilities, as well as Yellow Creek and Schell Creek
- PF-HYD-2, Water Pollution Control Program: A WPCP will be prepared by the contractor and approved by Caltrans, pursuant to the 2018 Caltrans Standard Specifications Section 13, Water Pollution Control, and the Caltrans WPCP Preparation Manual, and implemented prior to the beginning of construction.

3.3.11 Land Use and Planning

Would the Project:

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

The Project is located within the Sonoma Valley Planning Area of the Sonoma County General Plan.

CEQA SIGNIFICANCE DETERMINATIONS FOR LAND USE AND PLANNING

Yellow Creek Bridge is located on SR 121 at PM 6.52, approximately 0.2 mile south of the intersection of SR 116 and Bonneau Road. Arroyo Seco Bridge, which spans Schell Creek, is located on SR 121 at PM 8.43, approximately 1.6 miles south of the intersection of SR 116 and Bonneau Road.

a and b) No Impact

The Project would not physically divide an established community and complies with the stated goals of the Sonoma County General Plan, including goals for the land use element (Sonoma County 2020a) and the circulation and transit element (Caltrans 2020b). Therefore, there would be no impact.

3.3.12 Mineral Resources

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

CEQA SIGNIFICANCE DETERMINATIONS FOR MINERAL RESOURCES

a and b) No Impact

The Project occurs within the Mineral Resource Zone (MRZ) category MRZ-3a, which Sonoma County designates as “*areas containing known mineral occurrences of undetermined mineral resource significance*” (Miller et al. 2005). However, the Project would not disturb mineral resources, if present, and would not result in the loss of availability of a known mineral resource or locally important mineral resource recovery site. Therefore, no impact would occur.

3.3.13 Noise

Would the Project result in:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR NOISE

There are no residential homes or other noise-sensitive receptors within 400 feet of the Project components at Arroyo Seco Bridge. Two residential homes are located near the Project components at Yellow Creek Bridge. One home is approximately 80 feet east of the Project footprint and includes an outdoor art exhibit that appears open to the public. The other home is located approximately 320 feet southeast of the Project footprint.

a) Less Than Significant Impact

The Project would not permanently increase ambient noise levels in the vicinity of the bridges. The Project footprints are within SR 121, which creates background noise levels for nearby residents. The Project would not change operational capacity or increase long-term ambient noise levels.

The Project would potentially expose noise-sensitive receptors to a short-term increase in noise levels during construction, but the increase would be temporary. While most construction-related activities would occur during daytime hours, construction noise would be experienced for short durations during nighttime hours. Nighttime construction-related activities may include restriping for temporary one-way alternating traffic control, installing temporary barrier systems and temporary crash cushions along the centerline of SR 121, removing the bridge railings, MBGR, and alternative flared terminal systems, and installing MGS and alternative in-line terminal systems.

Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, Noise Control, which limits maximum hourly noise levels (L_{max}) to 86 A-weighted decibels (dBA) at 50 feet from a project from 9:00 p.m. to 6:00 a.m. AMM-NOISE-1, as summarized in Appendix B, includes the requirements of Caltrans Standard Specification Section 14-8.02, Noise Control.

In addition to AMM-NOISE-1, AMM-NOISE-2 and AMM-NOISE-3, as summarized in Appendix B, include public outreach to nearby noise-sensitive receptors and measures to reduce construction levels.

b) No Impact

Construction of the Project would not require vibratory or impact pile driving. There would be no impact from excessive groundborne vibration.

c) Less Than Significant Impact

As described in Section 3.3.9, two airports are within 2 miles of the Project. The Sonoma Valley Airport is located approximately 0.5 mile southeast of Yellow Creek Bridge and the Sonoma Skypark Airport is located approximately 0.75 mile north of Arroyo Seco Bridge. Yellow Creek Bridge is located within Sonoma Valley Airport's Referral Area Boundary and Arroyo Seco Bridge is located within Sonoma Skypark Airport's Referral Area Boundary (Sonoma County 2001).

Noise associated with construction is controlled by Caltrans Standard Specification Section 14-8.02, Noise Control, which limits L_{max} to 86 dBA at 50 feet from a project from 9 p.m. to 6 a.m. The requirements of Caltrans Standard Specification Section 14-8.02, Noise Control is discussed under AMM-NOISE-1 and summarized in Appendix B.

The Project would not permanently expose people residing or working within 2 miles of the Project footprints to excessive noise levels. Further, the Project would not generate excessive noise that would permanently impact people residing or working within 2 miles of the Project footprints. The lack of permanent operational impacts from noise, along with compliance with Caltrans' Standard Specifications, would reduce the potential construction noise impacts to a less than significant level.

AVOIDANCE AND MINIMIZATION MEASURES

Caltrans would incorporate AMM-NOISE-1 through AMM-NOISE-3 in the Project to avoid or minimize potential impacts from noise.

- AMM-NOISE-1, Nighttime Construction: Construction noise levels are not to exceed 86 dBA L_{max} at 50 feet from the Project site from 9:00 p.m. to 6:00 a.m. per 2018 Caltrans Standard Specifications, Section 14-8.02.
- AMM-NOISE-2, Public Outreach: Public outreach would be required before Project construction and throughout the Project construction to update residents, businesses, and others about upcoming activities and Project time frames. Public outreach has the potential to entail sending notices to nearby residents, notifying the city and/or county, and posting a notice on the Project website.
- AMM-NOISE-3, Construction Noise Levels: The following measures would be implemented to reduce noise levels during construction where feasible:
 - Equip an internal combustion engine with a manufacturer-recommended muffler that is in good condition. Do not operate an internal combustion engine within the Project footprints without the appropriate muffler.
 - Do not idle construction equipment unnecessarily.
 - Maximize the distance between stationary noise-generating construction equipment, such as air compressors and portable power generators, and noise-sensitive receptors.
 - Ensure all construction equipment conforms to Section 14-8. 02, Noise Control, of the latest Caltrans Standard Specifications.

3.3.14 Population and Housing

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR POPULATION AND HOUSING

A draft Community Impacts Assessment was prepared by the Caltrans Office of Environmental Analysis (Caltrans 2022i). A summary of the findings is presented here.

a and b) No Impact

The Project would upgrade bridge railings and would not induce population growth directly or indirectly, displace existing people or housing, or necessitate the construction of replacement housing elsewhere. New commercial or residential establishments would not be built as a result of the Project. The Project would not increase the operational capacity of SR 121, as additional travel lanes would not be constructed. Construction-related activities would occur within Caltrans ROW and no additional ROW would be acquired. The Project would not impact disadvantaged (Senate Bill 535) or low-income (Assembly Bill 1550) communities, the latter of which is defined as census tracts with median household incomes at or below 80 percent of the statewide median income or with median incomes at or below the threshold designated as low income by the U.S. Department of Housing and Community Development (Caltrans 2022i). Therefore, the Project would have no impact on population and housing.

3.3.15 Public Services

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

CEQA SIGNIFICANCE DETERMINATIONS FOR PUBLIC SERVICES

a) Less Than Significant Impact

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

- City of Sonoma Police Department (175 First Street West)
- City of Sonoma Fire and Rescue (630 2nd Street West)
- Sonoma Valley Unified School District (17850 Railroad Avenue)

To maintain the use of SR 121 for the traveling public and emergency service providers, the bridge railing upgrades would be performed one side at a time, with one-way alternating traffic control keeping the other lane open to traffic in both directions. Temporary signals would be installed to stop traffic at either end of the bridge approach sections. A TMP, as discussed in Section 3.3.17 and summarized in Appendix B, would be prepared prior to the beginning of construction to minimize impacts to service ratios, response times, and other performance objectives for public services. Traffic impacts would be temporary during construction; therefore, impacts are anticipated to be less than significant.

3.3.16 Recreation

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

CEQA SIGNIFICANCE DETERMINATIONS FOR RECREATION

There are no recreational facilities within the Project limits. The nearest public park is Nathanson Creek Park, located approximately 3 miles north of the Project corridor. The nearest regional park is Tolay Lake Regional Park, located approximately 4 miles northwest of the Project corridor.

a and b) No Impact

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

3.3.17 Transportation

Would the Project:

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

CEQA SIGNIFICANCE DETERMINATIONS FOR TRANSPORTATION

SR 121 is a two-lane undivided highway along the Project corridor. Yellow Creek Bridge is located at PM 6.52, approximately 0.2 mile south of the intersection of SR 116 and Bonneau Road. Arroyo Seco Bridge is located at PM 8.43, approximately 1.6 miles south of the intersection of SR 116 and Bonneau Road. The Project would upgrade the bridge railings at Yellow Creek Bridge, necessitating approximately 6 inches of widening on each side of the bridge to accommodate the larger bridge railings. The Project would also upgrade the bridge railings at Arroyo Seco Bridge, necessitating approximately 8 inches of widening on each side of the bridge to accommodate the larger bridge railings. The Project would not increase operational capacity, nor would it permanently alter the circulation system, and would have no temporary or permanent impact on vehicle miles traveled (VMT).

a) Less Than Significant Impact

The Project would conflict with the *District 4 Pedestrian Plan for the Bay Area* (Pedestrian Plan) (Caltrans 2021a), which analyzed existing pedestrian travel and potential future improvements on SR 121. Within the Project limits, the Pedestrian Plan identified Yellow Creek Bridge and Arroyo Seco Bridge as Tier 3 priorities, which are the lowest intensity of need. The Project would not improve pedestrian facilities within the Project limits and therefore would not address needs identified in the Pedestrian Plan.

The Project would also conflict with the *Caltrans District 4 Bike Plan for the San Francisco Bay Area* (Bike Plan) (Caltrans 2018), which analyzed existing bicycle travel and potential future improvements on SR 121, and the *Sonoma County Transportation Authority (SCTA) Countywide Bicycle and Pedestrian Master Plan*

(SCTA Bike and Pedestrian Plan) (Sonoma County Transportation Authority 2014). Within the Project limits, the Bike Plan, as well as the SCTA Bike and Pedestrian Plan, proposes Class II Bikeways along Yellow Creek Bridge. Within the Project limits, the Bike Plan proposes a Class I Bikeway and the SCTA Bike and Pedestrian Plan proposes a Class II Bikeway along Arroyo Seco Bridge. Class I Bikeways, also known as bike paths or shared-use paths, are facilities with exclusive (separated) ROW for pedestrians and bicyclists, away from the highway and with cross flows by motor traffic minimized. Class II Bikeways are bike lanes established along streets and are defined by pavement striping and signage to delineate a portion of a highway for bicycle travel. Bike lanes are typically one-way facilities, typically striped adjacent to motor traffic traveling in the same direction. The Project would not improve bicycle facilities within the Project limits and, therefore, would not address the policies identified in the Bike Plan and the SCTA Bike and Pedestrian Plan.

The Project would also conflict with Director's Policy (DP) 37, Complete Streets (Caltrans 2021b). This DP requires that the Project, which is a capital project, provide "complete streets" facilities for pedestrians walking and bicyclists biking within the Project footprints. The Project would not provide complete streets facilities and justification would be documented with final approval by the Caltrans District 4 Director.

The Project would not conflict with other programs, plans, ordinances, or policies regarding the circulation system, public transit, and bicycle or pedestrian facilities. However, as described in Section 1.2, the purpose of the Project is to comply with the design and installation standards outlined in the AASHTO MASH to protect the traveling public.

To protect construction workers and the traveling public, traffic control would be in place while construction-related activities are underway. A detailed TMP (AMM-TRANS-1, as summarized in Appendix B) would be developed prior to the beginning of construction to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. Therefore, impacts would be less than significant.

b) Less Than Significant Impact

The Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The Project would have less than significant impacts on VMT and, therefore, on transportation during construction because of temporary

traffic control, including temporary lane closures. The Project would have no permanent impact on VMT and would cause no permanent impacts on transportation.

c) No Impact

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

d) Less Than Significant Impact

The Project would not result in inadequate emergency access. With implementation of AMM-TRANS-1, medical and emergency vehicles would be able to continue to use SR 121 for fire, medical, emergency, and law enforcement purposes. The Project has the potential to cause short-term, localized traffic congestion and delays, resulting from one-way traffic control during construction. Detours would not be required during construction. The impact would be less than significant.

AVOIDANCE AND MINIMIZATION MEASURES

AMM-TRANS-1, as discussed here and summarized in Appendix B, would avoid or minimize potential impacts to transportation.

- AMM-TRANS-1, Transportation Management Plan: A TMP would be prepared prior to the beginning of construction to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. The TMP would identify traffic delays and alternative routes for emergency and medical vehicles associated with essential services, and would minimize impacts to service ratios, response times, and other performance objectives for public services. The TMP would provide priority to emergency vehicles during traffic control, as well as include instructions for response or evacuation in the event of an emergency.

3.3.18 Tribal Cultural Resources

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

Question	CEQA Determination
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR TRIBAL CULTURAL RESOURCES

a and b) No Impact

Under Section 106 and Assembly Bill 52, Caltrans sent letters initiating consultation to the identified tribes and individuals. No tribal cultural resources or sacred lands were identified through the consultation process under Assembly Bill 52 or through the archaeological pedestrian survey. No tribe has requested further information or formal consultation as of the date of this document. Therefore, the Project would have no impact on tribal cultural resources.

3.3.19 Utilities and Service Systems

Would the Project:

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

There are overhead electrical utility lines east of the northbound lane of SR 121 at Yellow Creek Bridge, as well as overhead electrical utility lines north of the westbound lane of SR 121 and south of the eastbound lane of SR 121 at Arroyo Seco Bridge. In addition, there is an underground gas line within Sonoma County APN 128-431-006, north of the westbound lane of SR 121 at Arroyo Seco Bridge.

CEQA SIGNIFICANCE DETERMINATIONS FOR UTILITIES AND SERVICE SYSTEMS

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

The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. The Project is not anticipated to require utility (e.g., gas, electric, telephone, cable, water, and sewer) relocations. Utility verification (i.e., potholing) would occur during the PS&E phase to confirm the need for utility relocations, and if needed, utility relocations would occur prior to the beginning of construction and in consultation with utility providers (e.g., Pacific Gas and Electric Company, American Telephone and Telegraph, and Verizon).

The Project would not require the services of a landfill where the Project would impact its capacity. The Project would not exceed wastewater treatment requirements. The Project would not require water supplies to serve the Project from existing entitlements or where the Project would impact new or expanded entitlements. The

Project would not require the services of a wastewater treatment provider where the Project would impact the provider's capacity. All construction-related waste would be properly disposed of, or recycled, at an approved facility in compliance with both Caltrans Standard Specification 14-11, Hazardous Waste and Contamination, and the requirements of the facility to which the waste is hauled. Construction-related activities would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the Project would have no impacts related to utilities and service systems.

3.3.20 Wildfire

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

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

The Project is located along both a State Responsibility Area and an unincorporated Local Responsibility Area (Figure 3-1 in Appendix A); the Project is not within a high severity fire area (CAL FIRE 2008 and 2022b). The Santa Rosa Fire Department, Petaluma Fire Department, Sonoma County Fire District, and volunteer fire companies operating through the County of Sonoma Emergency Readiness Response and Recovery, as well as CAL FIRE, provide fire suppression, rescue, and emergency services within the Project corridor (Sonoma County 2022b).

CEQA SIGNIFICANCE DETERMINATIONS FOR WILDFIRE

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

A TMP, as discussed in Section 3.3.17 and summarized in Appendix B, would be prepared prior to the beginning of construction to identify traffic diversion/staging and alternative routes. Emergency response times may increase during construction; however, with implementation of the TMP during construction, measures would provide priority for emergency vehicles during lane closures and traffic control. The TMP would include coordination with emergency service providers and include instructions for response and evacuation in the event of an emergency such as a wildfire. The Project would upgrade bridge railings to comply with the design and installation standards outlined in the AASHTO MASH. In the event of a wildfire, the TMP would be implemented. The Project would not exacerbate wildfire risks or expose people or structures to significant risks. The Project would have a less than significant impact.

3.3.21 Mandatory Findings of Significance

Question	CEQA Determination
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Less Than Significant Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE

a) Less Than Significant Impact

As determined in Section 3.3.4, the Project is not anticipated to have adverse direct or indirect impacts to the federally and state listed special-status species (listed animal species include CRLF, WPT, CCC Steelhead, and SWHA). The impacts to SWHA foraging habitat would be minimal based on the large amount of similar or better foraging habitat available to SWHA throughout the Sonoma Valley. The Project is not anticipated to disrupt avian breeding or foraging behavior. Direct and indirect impacts to animal species would be avoided or minimized through the implementation of PFs and AMMs as summarized in Appendix B. The Project would not have a substantial adverse effect on riparian habitat or environmentally sensitive natural communities. Implementation of the Project would not result in tree removal or ground-disturbing activities in Yellow Creek or Schell Creek. No cultural resources or major periods of California history or prehistory are located within the Project footprints or Project area. Therefore, the impact would be less than significant.

b) No Impact

A review of projects in the vicinity of the Project determined that no past, present, or future projects would pose a cumulative effect together with implementation of the Project. For biological resources, no cumulative impacts are anticipated based on the

implementation of the PFs and AMMs as summarized in Appendix B. With respect to population and housing, the Project would not be growth inducing. With respect to land use and planning, the Project is aligned with the goals of the Sonoma County General Plan. With these considerations, the Project would not have cumulative impacts. Therefore, there would be no impact.

c) Less Than Significant Impact

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

Chapter 4 Community Outreach and Consultation and Coordination with Public Agencies

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

4.1 Community Outreach

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

- Sonoma County Regional Library
755 West Napa Street
Sonoma, CA 95476

The deadline for submission of comments on the IS/ND is August 8, 2022.

4.2 Consultation and Coordination with Public Agencies

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

Table 4-1. Consultation and Coordination with Public Agencies

Organization(s)	Date	Topic
NOAA Fisheries	May 24, 2021	Jonathan Hogg received an email from Elena Meza stating that salmonids are not expected in Yellow Creek, but CCC steelhead are expected to be present year round in Schell Creek and that Schell Creek is designated critical habitat for CCC steelhead.
CDFW	June 29, 2021	Jonathan Hogg received an email from Robert Stanley confirming that Schell Creek is designated CCC steelhead habitat, but that presence of CCC steelhead in Schell Creek or Yellow Creek is uncertain.

Chapter 5 List of Preparers and Reviewers

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

Table 5-1. List of Preparers and Reviewers

Organization	Name	Role
Caltrans	Scott Williams	Office Chief (Acting), Office of Environmental Analysis
Caltrans	Arnica MacCarthy	Senior Environmental Planner, Office of Environmental Analysis
Caltrans	Jessica Thaggard	Branch Chief (Acting), Office of Biological Sciences and Permits
Caltrans	Jonathan Hogg	Environmental Scientist, Office of Biological Sciences and Permits
Caltrans	Helen Blackmore	Branch Chief, Office of Cultural Resource Studies
Caltrans	Alicia Sanhueza	Environmental Planner (Architectural History), Office of Cultural Resource Studies
Caltrans	Kathryn Rose	Senior Environmental Planner, Office of Cultural Resource Studies
Caltrans	Lindsay Busse	Associate Environmental Planner (Archaeology), Office of Cultural Resource Studies
Caltrans	Shilpa Mareddy	Branch Chief, Office of Environmental Engineering
Caltrans	Radhika Mothkuri	Transportation Engineer, Office of Environmental Engineering
Caltrans	Chris Wilson	District Branch Chief, Office of Environmental Engineering
Caltrans	Chris Risten	Branch Chief, Office of Geotechnical Design – West
Caltrans	Jim Allen	Engineering Geologist, Office of Geotechnical Design – West
Caltrans	Kathleen Reilly	District Branch Chief, Office of Hydraulic Engineering
Caltrans	Andy Do	Transportation Engineer, Office of Hydraulic Engineering
Caltrans	Joaquin Pedrin	Branch Chief, Office of Landscape Architecture
Caltrans	Wesley Bexton	Landscape Associate, Office of Landscape Architecture
Caltrans	Mojgan Osooli	Branch Chief, Office of Water Quality
Caltrans	Tayebbeh Chimeh	Water Quality Engineer, Office of Water Quality
Caltrans	Mostafa Mo Faghihi	Water Quality Engineer, Office of Water Quality
Caltrans	Lawrence Loi	Project Manager, Project Management North
Caltrans	Atif Abrar	Senior Transportation Engineer, Office of Design South, Special Projects
Caltrans	Zahra Sarwary	Project Engineer, Office of Design South, Special Projects
Caltrans	Joy Cheung	Construction Manager, Office of North Bay Construction
Caltrans	Tiffany Li	Transportation Engineer, Office of North Bay Construction-San Rafael
Jacobs	Kevin Fisher	Senior Biologist
Jacobs	Jack Gordon	Biologist

Organization	Name	Role
Jacobs	Patricia Ambacher	Senior Cultural Resources Specialist
Jacobs	Hong Zhuang	Senior Environmental Engineer
Jacobs	Yassaman Sarvian	Associate Environmental Planner
Jacobs	Joe Aguirre	Environmental Planner
Jacobs	Erin Kraft	Environmental Planner
Jacobs	Erik Lauritzen	Environmental Planner
Jacobs	Ryo Nagai	Environmental Planner
Jacobs	Will Packard	Environmental Planner
Jacobs	Sam Schoevaars	Environmental Planner
Jacobs	Tara Zuroweste	Environmental Planner
Jacobs	Yerandy Pacheco	Transportation Planner
Jacobs	Loretta Meyer	Senior Environmental Planner/Project Manager
Jacobs	Joza Burnam	Senior Environmental Planner
Jacobs	Chris Archer	Geospatial Professional
Jacobs	Clarice Ericsson	Publications Technician
Jacobs	Bryan Bell	Senior Technical Editor
Jacobs	Leslie O'Connor	Technical Editor
Jacobs	Austen Sandifer	Technical Editor

Chapter 6 Circulation List

The IS/ND will be circulated by July 8, 2022, to the agencies and elected officials listed in the following sections.

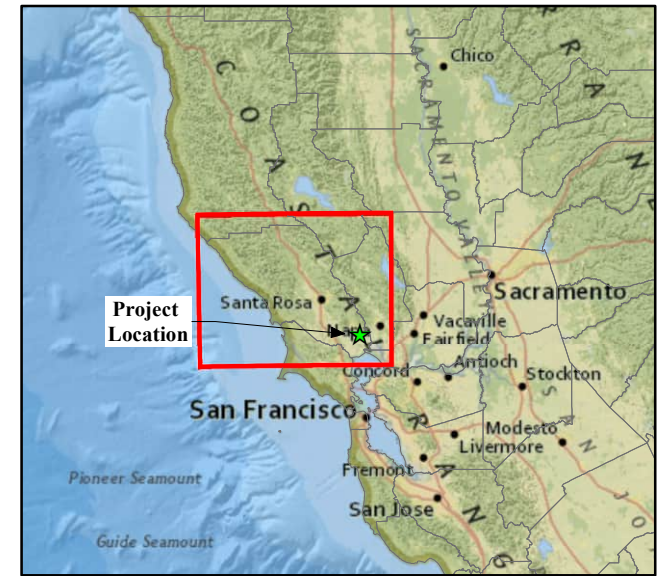
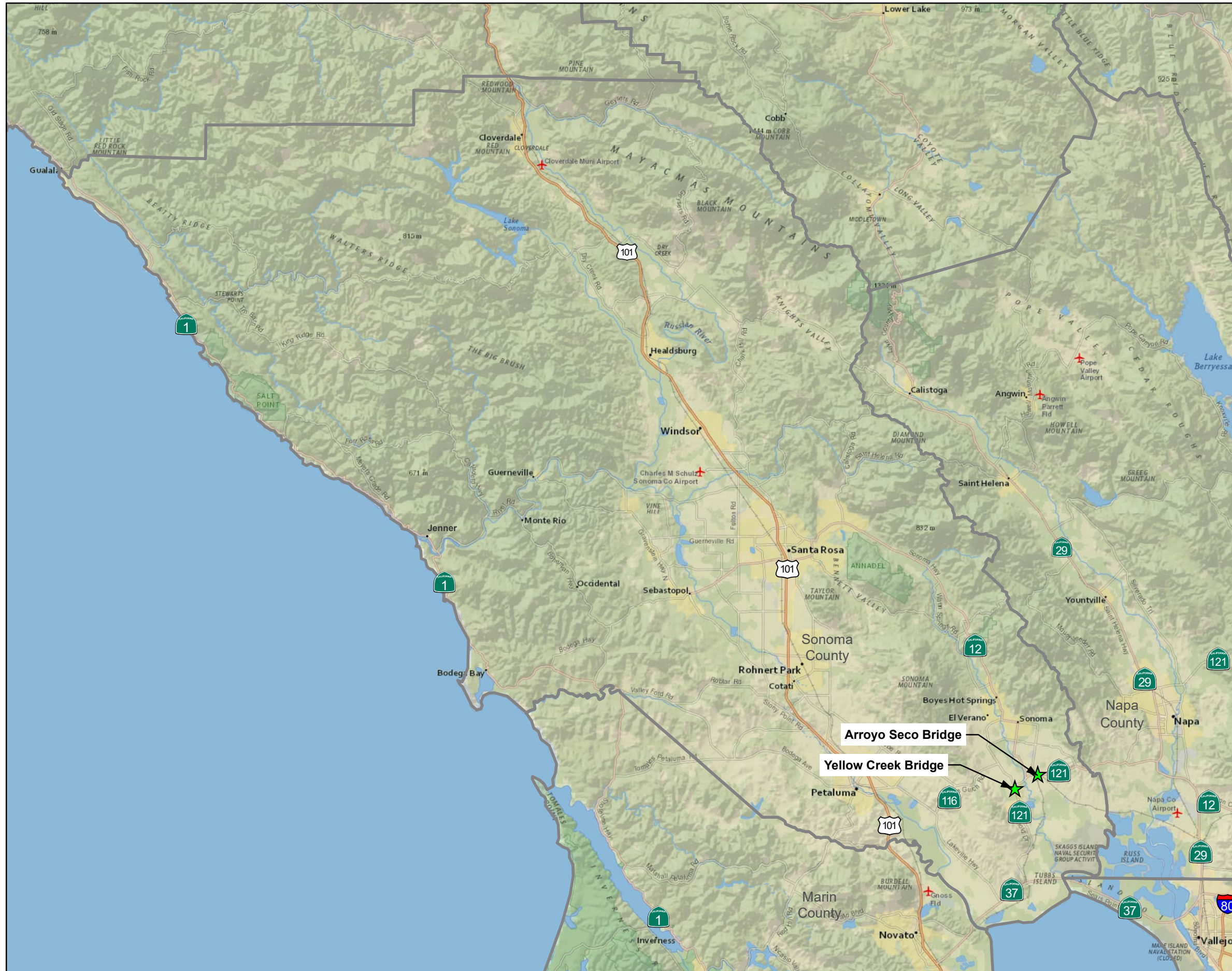
6.1 Agencies

- Bay Area Air Quality Management District
- California Department of Fish and Wildlife
- California Department of Parks and Recreation
- California Transportation Commissions
- City of Sonoma Planning Department
- Governor’s Office of Planning and Research
- San Francisco Bay Conservation and Development Commission
- San Francisco Bay Regional Water Quality Control Board
- Sonoma County Planning Division
- Sonoma County Sheriff’s Office
- Sonoma County Transportation Authority
- State Water Resources Control Board
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers

6.2 Elected Officials

- The Honorable Dianne Feinstein
- The Honorable Alex Padilla
- The Honorable Mike Thompson (CA-5)
- The Honorable Mike McGuire (SD 2)
- The Honorable Jim Wood (AD 2)
- The Honorable Supervisor Susan Gorin (District 1)
- City of Sonoma Mayor Jack Ding
- City of Sonoma Vice Mayor Kelso Barnett
- City of Sonoma Councilmember Madolyn Agrimonti
- City of Sonoma Councilmember Robert Felder
- City of Sonoma Councilmember Sandra Lowe
- City of Sonoma Acting City Manager Sue Casey
- City of Sonoma Public Works Director Mike Berger

Appendix A Figures



Legend
 ★ Project Location

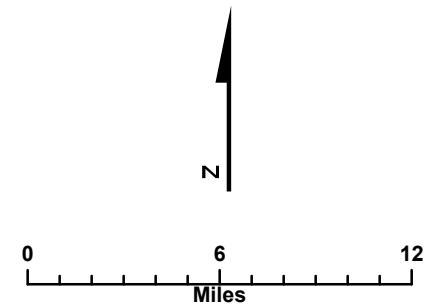
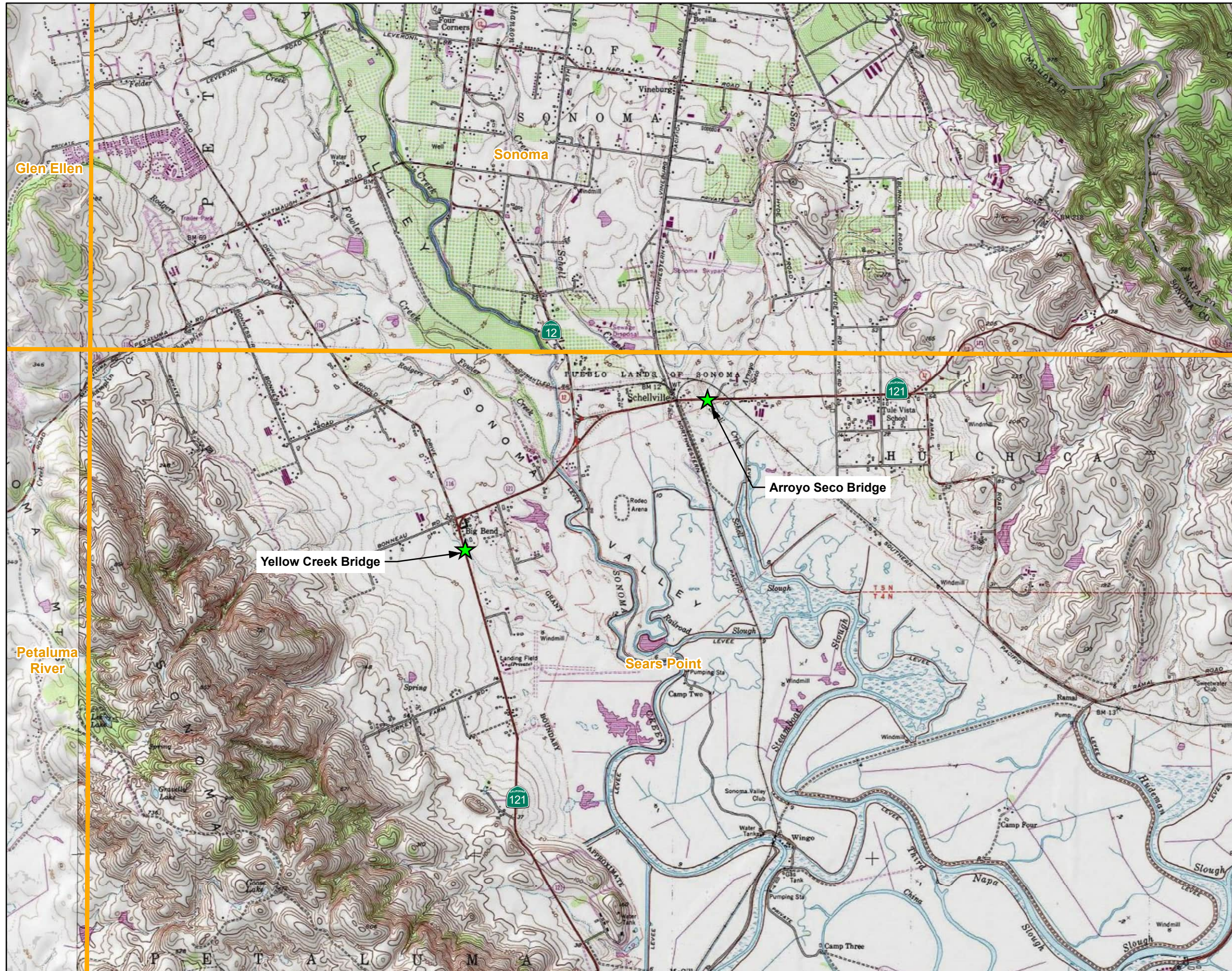




FIGURE 1-1
Regional Location
 State Route 121 Bridge Railing Upgrade Project
 EA 04-2Q440, SON-121-6.52/8.43
 Sonoma County, California



Legend

-  Project Location
-  USGS 7.5 Minute Quadrangle

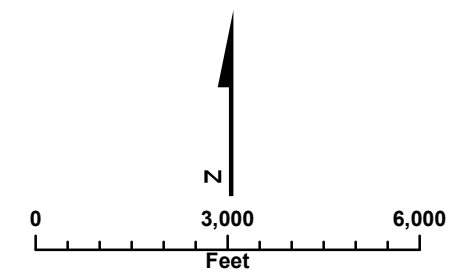


FIGURE 1-2
Project Location
 State Route 121 Bridge Railing Upgrade Project
 EA 04-2Q440, SON-121-6.52/8.43
 Sonoma County, California

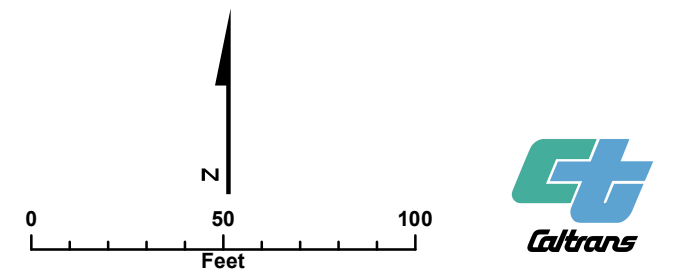
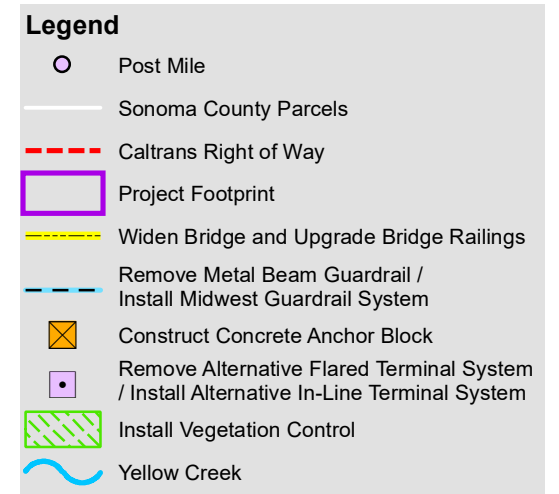
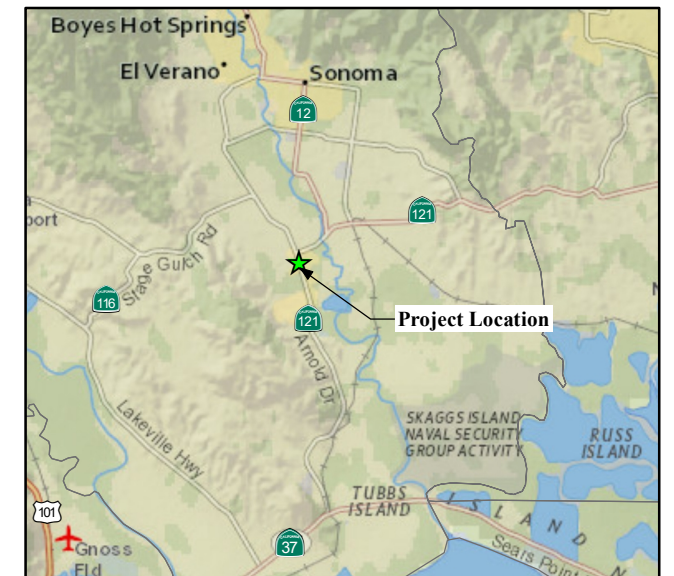
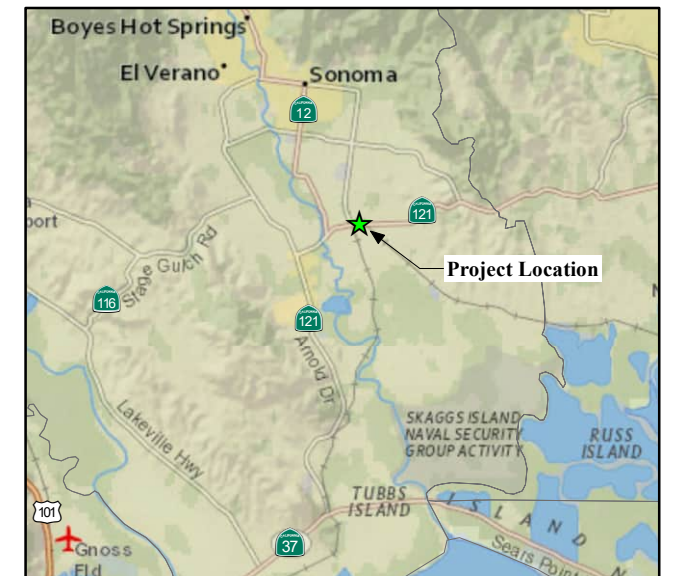
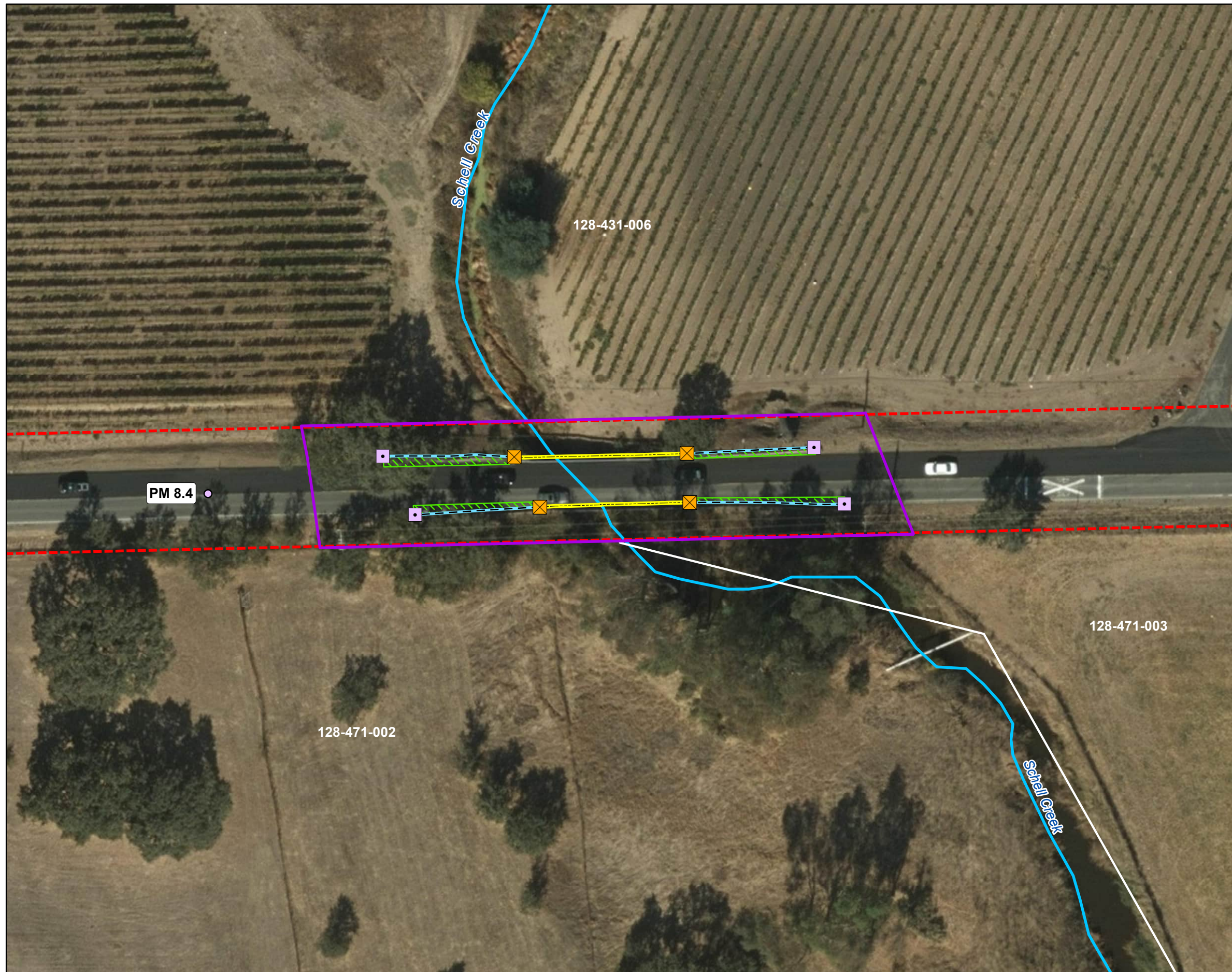


FIGURE 1-3
Yellow Creek Bridge Project Components
 State Route 121 Bridge Railing Upgrade Project
 EA 04-2Q440, SON-121-6.52/8.43
 Sonoma County, California



- Legend**
- Post Mile
 - Sonoma County Parcels
 - - - Caltrans Right of Way
 - ▭ Project Footprint
 - - - Widen Bridge and Upgrade Bridge Railings
 - - - Remove Metal Beam Guardrail / Install Midwest Guardrail System
 - ⊠ Construct Concrete Anchor Block
 - ▣ Remove Alternative Flared Terminal System / Install Alternative In-Line Terminal System
 - ▨ Install Vegetation Control
 - ~ Schell Creek

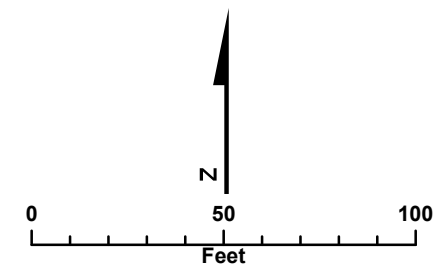
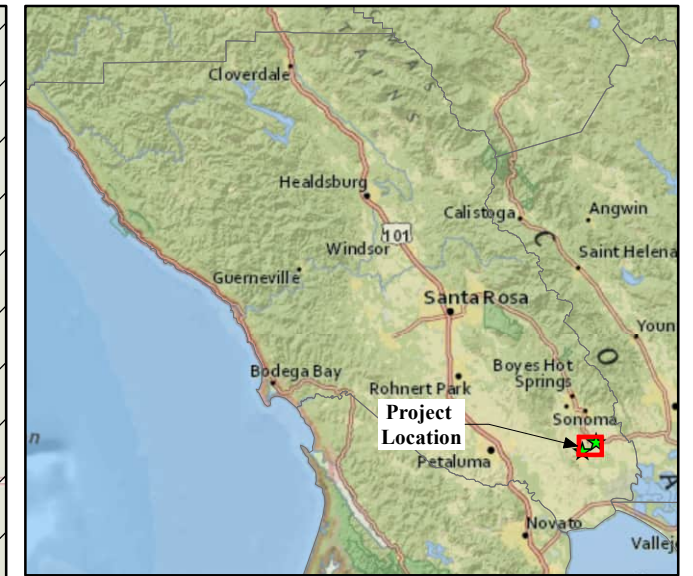
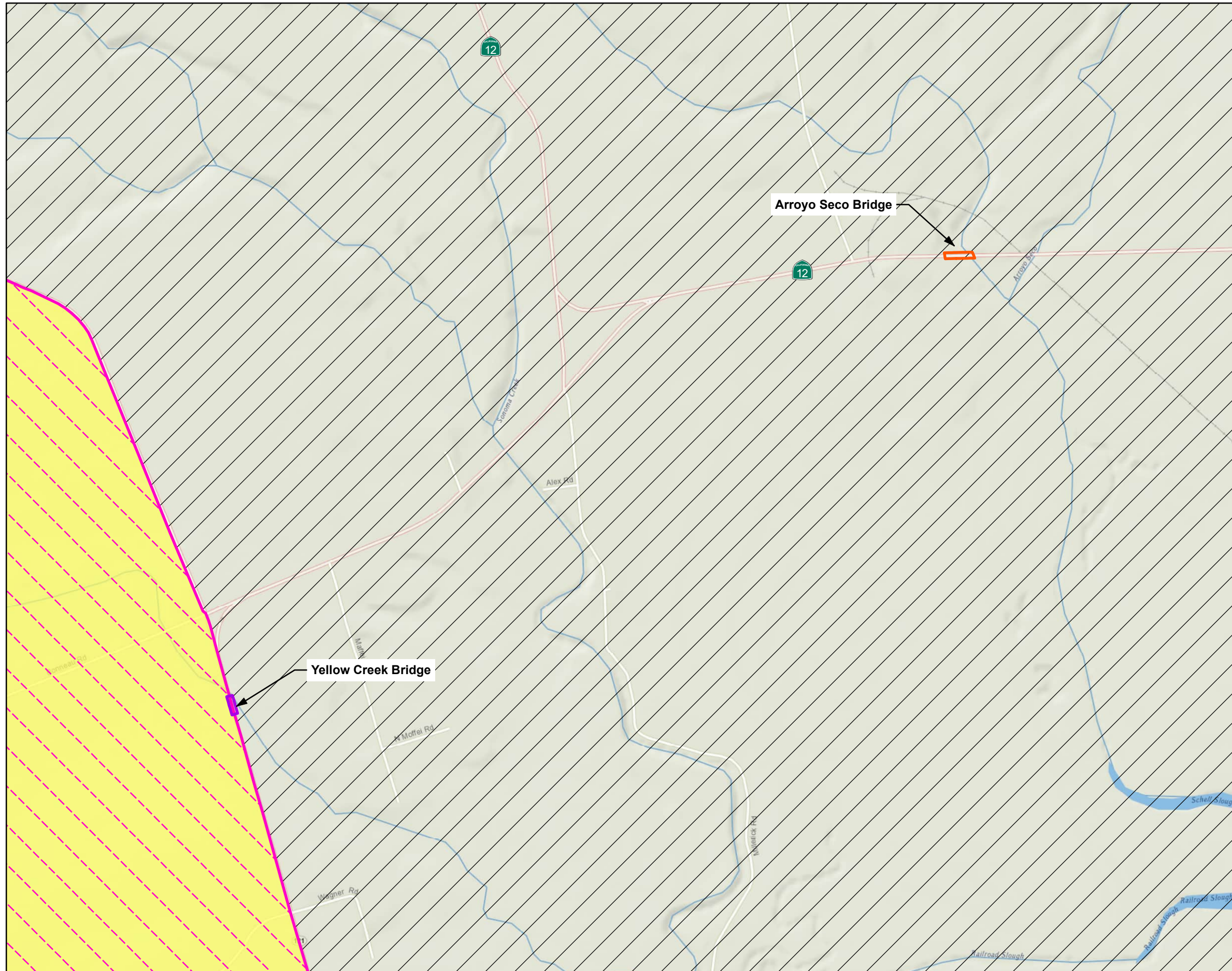



FIGURE 1-4
Arroyo Seco Bridge Project Components
 State Route 121 Bridge Railing Upgrade Project
 EA 04-2Q440, SON-121-6.52/8.43
 Sonoma County, California



- Legend**
-  Arroyo Seco Bridge Footprint
 -  Yellow Creek Bridge Project Footprint
- Fire Hazard Severity Zones in State Responsibility Area**
-  Moderate
- Responsibility Areas**
-  Local Responsibility Area (LRA)
 -  State Responsibility Area (SRA)

Sources:
CDF-FRAP

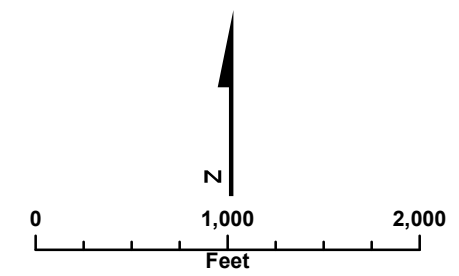


FIGURE 3-1
Fire Hazard Severity Zones
 State Route 121 Bridge Railing Upgrade Project
 EA 04-2Q440, SON-121-6.52/8.43
 Sonoma County, California

Appendix B Summary of Project Features and Avoidance and Minimziation Measures

Project Features

- PF-AES-1, Temporary Fencing: Use temporary exclusion fencing to protect the roots and canopies of nearby trees from construction-related activities.
 - PF-AES-2, Construction Equipment and Materials Storage: Construction equipment and materials should be stored in screened staging areas beyond the direct view of the traveling public and residential properties to the extent feasible.
 - PF-AES-3, Nightwork: For nightwork, limit construction lighting to the Project footprints for construction-related activities, and use directional lighting, shielding, and other measures as needed to minimize light trespass to adjacent residences and to the traveling public.
 - PF-AES-4, Vegetation Impacts and Protection: Reduce impacts to vegetation to the greatest extent possible while allowing the Project to be implemented. Vegetation to remain should be protected from construction activities by temporary fencing when vegetation is close to construction-related activities.
 - PF-AES-5 Revegetate Disturbed Areas: Revegetate disturbed areas with regionally appropriate native seed mix.
 - PF-AQ-1, Dust Control Measures: Implement dust control measures to minimize airborne dust and soil particles generated from construction-related activities, including watering or applying dust palliative to disturbed areas, preventing and promptly removing trackouts on SR 121 affected by construction traffic, and covering soils or materials or providing adequate freeboard (space from the top of the material to the top of the truck) during transport.
 - PF-AQ-2, Construction Vehicles and Equipment: Maintain and tune the construction vehicles and equipment in accordance with manufacturer's specifications.
 - PF-AQ-3, Limit Idling: Limit idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes.
-

- PF-BIO-1, Preconstruction Surveys for Nesting Birds: If clearing and grubbing vegetation would occur between February 1 and September 30, a biological monitor would conduct preconstruction surveys for nesting birds within the ground areas to be disturbed prior to beginning construction-related activities. The survey would include a perimeter buffer of approximately 50 feet for non-game migratory birds and approximately 300 feet for raptors. All nest avoidance requirements of the Migratory Bird Treaty Act, USFWS, and CDFW Codes would be observed. If an active nest is found, an appropriate protection buffer would be established until the young fledge. USFWS and/or CDFW would be contacted if a special-status species is discovered within the Project footprints within 24 hours.

- PF-BIO-2, Delineated Construction Areas, Environmentally Sensitive Areas, and Equipment and Material Storage Sites: A Caltrans-approved biological monitor would delineate construction areas, ESAs, and equipment materials and storage sites. ESAs are areas containing sensitive habitats adjacent to or within the Project footprint, in which ground-disturbing activities are not allowed. ESAs would be delineated on the final Project plans. An agency-approved biological monitor would be onsite to direct the installation of high-visibility, orange ESA fencing to prevent the encroachment of construction personnel, materials, and equipment into ESAs during construction-related activities, as needed. Construction equipment and materials would be stored outside of designated ESAs, as specified by a Caltrans-approved biological monitor, to avoid construction-related impacts to natural communities. At the discretion of the agency-approved biological monitor, ESA fencing would be removed when construction is no longer active in the delineated construction areas.

- PF-BIO-3, Construction Site Best Management Practices: Construction BMPs for biological resources may include, but are not limited to, the following:
 - Construction vehicles would be restricted to SR 121 and delineated construction areas. Construction vehicles would observe a 15-mile-per-hour speed limit within the Project footprints, except when on the SR 121 travel lanes.
 - Construction access, staging, storage, and parking areas would be delineated outside of designated ESAs within the Project footprints, and limited to the minimum area necessary to construct the Project.

- All construction-related waste, such as wrappers, cans, bottles, and food scraps, would be disposed of, or recycled, in closed containers and removed at least once daily from the Project footprint.
- All pets would be prohibited from entering the Project area.
- Firearms would be prohibited within the Project area, except for those carried by authorized security personnel or local, state, or federal law enforcement officials.
- PF-BIO-4, Noxious Weeds: Noxious weeds would be controlled 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-approved landscape architect.
- PF-CULT-1, Cease Work: Cease work if cultural resources are encountered during Project-related ground-disturbing activities, have a qualified archaeologist assess the significance of the resource, and implement appropriate avoidance or treatment measures.

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

- PF-CULT-2, Stop Work: Stop potentially damaging work if human remains are uncovered during construction, have a qualified archaeologist assess the significance of the find and pursue appropriate management.
- PF-ENERGY-1, Recycle Waste and Materials: Recycle nonhazardous waste and excess materials offsite to reduce disposal, if feasible.
- PF-ENERGY-2, Solar Energy: Use solar energy as the energy source for construction equipment, such as, but not limited to, signal boards, if feasible.
- PF-HYD-1, Construction and Implementation of Best Management Practices: Erosion control BMPs would be included in the final Project plans and SSPs

would be included in the final construction package to comply with the conditions of the Caltrans NPDES permit. The Caltrans BMP Guidance Handbook would provide guidance for provisions to be included in the construction contract for measures to protect ESAs and avoid or minimize stormwater and non-stormwater discharges. Construction BMPs for stormwater may include, but are not limited to, the following:

- Construction tracking control practices
 - Job site management
 - Sediment control (fiber rolls and silt fencing)
 - Waste management and materials pollution control
 - Materials stockpile management
 - Wind erosion controls
 - Drainage inlet protection
 - Non-storm water management
 - Water quality monitoring
- PF-HYD-2, Water Pollution Control Program: A WPCP will be prepared by the contractor and approved by Caltrans, pursuant to the 2018 Caltrans Standard Specifications Section 13, Water Pollution Control, and the Caltrans WPCP Preparation Manual, and implemented prior to the beginning of construction.

Avoidance and Minimization Measures

- AMM-AES-1, Vegetation Impacts and Protection: Minimize impacts to vegetation to the greatest extent possible while allowing the Project to be implemented. Vegetation to remain should be protected from construction activities by temporary fencing when vegetation is close to construction-related activities.
- AMM-AES-2, Staging Areas: Staging areas should not be located where they require the removal of vegetation or cause impacts to the roots of adjacent trees.
- AMM-AES-3, Concrete Color: Color treat concrete portions of bridge railings and anchor blocks to reduce visual change and maintain the consistency of the Project corridor. Consult the Caltrans Office of Landscape Architecture during the PS&E phase to coordinate the architectural treatments of Project components.

- AMM-AES-4 Revegetate Disturbed Areas: Revegetate disturbed areas with regionally native seed mix.
- AMM-BIO-1, Proper Use of Erosion Control Devices: To prevent CRLF from becoming entangled or trapped in erosion control devices, plastic monofilament netting (i.e., erosion control matting) or similar material would not be used within the Project footprints. Acceptable substitutes would include coconut coir matting or tackified hydroseeding compounds.
- AMM-BIO-2, Preconstruction Surveys for California Red-Legged Frog: Preconstruction surveys would be conducted by a USFWS-approved biological monitor. Visual surveys would be conducted immediately prior to the beginning of ground-disturbing activities. Suitable breeding and dispersal habitat within the Project footprints includes refugia habitat (such as in or under shrubs, downed logs, small woody debris, and burrows), which would be inspected. If an individual is observed, it would be evaluated and relocated in accordance with the observation and handling protocols outlined in AMM BIO-5. Fossorial mammal burrows would be inspected for signs of CRLF usage to the maximum extent practicable. If it is determined that a fossorial mammal burrow may be occupied by a CRLF, USFWS would be contacted and work would be stopped.
- AMM-BIO-3, Biological Monitoring: A USFWS-approved biological monitor would be present onsite during construction-related activities that have the potential to result in take of CRLF to monitor for CRLF. The USFWS-approved biological monitor may stop work if deemed necessary for any reason to protect CRLF and would advise the Resident Engineer (RE) or designee on how to proceed accordingly.
- AMM-BIO-4, Timing of Construction: Ground-disturbing activities would be restricted to the dry season (i.e., between June 15 and October 31), and when CRLF are anticipated to be estivating in moist refuges and not dispersing through the Project area.

Construction-related activities would not occur during rain events or within 24 hours following a rain event. Prior to resuming construction-related activities, a USFWS-approved biological monitor would inspect the construction area and construction vehicles, equipment, and materials stored onsite for the presence of CRLF. CRLF would be allowed to move away from the construction area of their own volition or would be moved by the USFWS-approved biological monitor.

- AMM-BIO-5, Discovery of a Special-Status Species: The biological monitor would have the authority to halt work through coordination with the RE in the event that a special-status species is discovered in an active construction area or might otherwise be at risk. The RE would ensure construction-related activities remain suspended in any construction area where the biological monitor has determined that the special-status species could be harmed. For CRLF, work may resume when the individual moves away from the construction area of its own volition or is moved out of harm's way by a USFWS-approved biological monitor. For other federally and state listed species, USFWS and/or CDFW would be contacted on how to proceed before work is allowed to resume.
- AMM-BIO-6, Construction Materials Storage: For onsite storage of construction materials that could provide shelter for CRLF, an open top trailer would be used to elevate the construction materials above ground surface to reduce the potential for CRLF to climb into the construction materials.
- AMM-BIO-7, Worker Environmental Awareness Training: Construction personnel would attend a mandatory worker environmental awareness training (WEAT) delivered by a qualified biologist prior to beginning construction. WEAT would provide information on special-status species and the construction personnel's responsibility in reducing, avoiding, or minimizing impacts to special-status species during construction. At a minimum, WEAT would include a description of special-status species and migratory birds that may occur in the Project area; a discussion of the potential occurrence of special-status species within the Project footprints; an explanation of the status of special-status species and protection measures under federal and state laws and regulations; and the description of avoidance or minimization measures to be implemented to conserve special-status species and their habitats as they relate to the Project. Information on special-status species would be provided to construction personnel, along with compliance reminders and relevant contact information. Documentation of WEAT and sign-in sheets would be kept on file and available on request.
- AMM-NOISE-1, Nighttime Construction: Construction noise levels are not to exceed 86 dBA L_{max} at 50 feet from the Project site from 9:00 p.m. to 6:00 a.m. per 2018 Caltrans Standard Specifications, Section 14-8.02. Noise resulting from construction activities should be controlled and monitored.

- AMM-NOISE-2, Public Outreach: Public outreach would be required before Project construction and throughout the Project construction to update residents, businesses, and others about upcoming activities and Project time frames. Public outreach has the potential to entail sending notices to nearby residents, notifying the city and/or county, and posting a notice on the Project website.
- AMM-NOISE-3, Construction Noise Levels: The following measures would be implemented to reduce noise levels during construction where feasible:
 - Equip an internal combustion engine with a manufacturer-recommended muffler that is in good condition. Do not operate an internal combustion engine within the Project footprint without the appropriate muffler.
 - Do not idle construction equipment unnecessarily.
 - Maximize the distance between stationary noise-generating construction equipment, such as air compressors and portable power generators, and noise-sensitive receptors.
 - Ensure all construction equipment conforms to Section 14-8. 02, Noise Control, of the latest Caltrans Standard Specifications.
- AMM-TRANS-1, Transportation Management Plan: A TMP would be prepared prior to the beginning of construction to aid in coordinating and providing further safety measures for those accessing the Project corridor during construction. The TMP would identify traffic delays and alternative routes for emergency and medical vehicles associated with essential services, and would minimize impacts to service ratios, response times, and other performance objectives for public services. The TMP would provide priority to emergency vehicles during traffic control, as well as include instructions for response or evacuation in the event of an emergency.

Appendix C List of Technical Studies and References

- Association of Bay Area Governments and Metropolitan Transportation Commission (ABAG and MTC). 2021. *Plan Bay Area 2050*. October. https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed May 16, 2022.
- Bryant, W.A., and M. Lundberg, compilers. 2002. "Fault number 1b, San Andreas fault zone, North Coast section." in *Quaternary fault and fold database of the United States: U.S. Geological Survey*. https://earthquake.usgs.gov/cfusion/qfault/show_report_AB_archive.cfm?fault_id=1§ion_id=b. Accessed May 16, 2022.
- Bryant, W.A., compiler. 2017. "Fault number 229, Bennett Valley fault zone." in *Quaternary fault and fold database of the United States: U.S. Geological Survey*. https://earthquake.usgs.gov/cfusion/qfault/show_report_AB_archive.cfm?fault_id=229§ion_id=. Accessed May 16, 2022.
- California Air Resources Board (CARB). 2019. *Summaries of Historical Area Designations for State Standards*. <https://ww2.arb.ca.gov/our-work/programs/state-and-federal-area-designations/state-area-designations/summary-tables>. Accessed May 16, 2022.
- California Department of Conservation. 2016. *California Important Farmland Finder*. <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed May 16, 2022.
- California Department of Conservation. 2019. *Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency*. <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Sonoma.aspx>. Accessed May 16, 2022.
- California Department of Conservation. 2020. *California Tsunami Maps and Data*. <https://www.conservation.ca.gov/cgs/tsunami/maps>. Accessed May 16, 2022.
- California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database. Rarefind 5. <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed April 8.

California Department of Forestry and Fire Protection (CAL FIRE). 2008. *Fire Hazard Severity Zone Viewer*. <https://egis.fire.ca.gov/FHSZ/>. Accessed May 16, 2022.

California Department of Forestry and Fire Protection (CAL FIRE). 2022a. *Fire Hazard Severity Zone Maps*. <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>. Accessed May 16, 2022.

California Department of Forestry and Fire Protection (CAL FIRE). 2022b. *Fire Hazard Severity Zones in SRA*. https://osfm.fire.ca.gov/media/6822/fhszs_map49.pdf. Accessed May 16, 2022.

California Department of Transportation (Caltrans). 2018. *Caltrans District 4 Bike Plan for the San Francisco Bay Area*. https://dot.ca.gov/-/media/dot-media/district-4/documents/d4-bike-plan/caltransd4bikeplan_report_lowres-r6.pdf. Accessed May 16, 2022.

California Department of Transportation (Caltrans). 2019. *California State Scenic Highway System Map*. <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html>. Accessed May 16, 2022.

California Department of Transportation (Caltrans). 2021a. *District 4 Pedestrian Plan for the Bay Area*. [https://www.catplan.org/files/managed/Document/1149/Caltrans%20District%204%20Pedestrian%20Plan%20for%20the%20Bay%20Area%20\(final\).pdf](https://www.catplan.org/files/managed/Document/1149/Caltrans%20District%204%20Pedestrian%20Plan%20for%20the%20Bay%20Area%20(final).pdf). Accessed May 16, 2022.

California Department of Transportation (Caltrans). 2021b. *Director's Policy DP-37, Complete Streets*. <https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/dp-37-complete-streets-all1y.pdf>. Accessed May 31, 2022.

California Department of Transportation (Caltrans). 2022a. *04-SON-121, PM 6.52/8.43, EA 04-2Q440, E-FIS 0419000013. Visual Impact Assessment and Scenic Resource Evaluation*. Memorandum. Office of Landscape Architecture. February 18.

- California Department of Transportation (Caltrans). 2022b. *04-SON-121, PM 6.5/8.4, EA 04-2Q440, EFIS 04 1900 0013, Upgrade Bridge Railings at Yellow Creek and Arroyo Seco*. Memorandum. Office of Hydraulic Engineering. February 22.
- California Department of Transportation (Caltrans). 2022c. *EA 04-2Q440, EFIS ID 0419000013, SON-121-6.5/8.4, Bridge Railing Upgrade. Construction Greenhouse Gas Emissions Analysis*. Memorandum. Office of Environmental Engineering, February 24.
- California Department of Transportation (Caltrans). 2022d. *EA 04-2Q440, EFIS ID 0419000013, 04-Son-121-6.5/8.4, Bridge Railing Upgrade. Energy Analysis Report*. Memorandum. Office of Environmental Engineering. February 24.
- California Department of Transportation (Caltrans). 2022e. *EA 04-2Q440, SON/121/6.5 & 8.4. Office of Cultural Resource Studies Section 106 Screening Memo for the State Route (SR) 121 Bridge Railing Upgrade Project (Undertaking) at Postmiles (PM) 6.5 and 8.4, on SR 121 in Sonoma County, California*. Memorandum. Office of Cultural Resource Studies. March 1.
- California Department of Transportation (Caltrans). 2022f. *04-SON-121 PM 6.5/8.4, Project: EA 2Q4400, ID # 04-1900-0013. Water Quality Study*. Office of Water Quality. March 28.
- California Department of Transportation (Caltrans). 2022g. *04-NAP-121 PM 6.52/8.43, 04-2Q440, EFIS# 0419000013, Bridge Rail Replacement. Geologic and Paleontologic Analysis for Replacing Bridge Railings*. Memorandum. Office of Geotechnical Design – West. April 22.
- California Department of Transportation (Caltrans). 2022h. *04-SON-121 PM 6.52/8.43, EA 04-2Q440/ID 0419000013. Natural Environmental Study (Minimal Impacts)*. Office of Biological Sciences and Permits. May 31.
- California Department of Transportation (Caltrans). 2022i. *Draft Community Impact Assessment for the State Route 121 Bridge Railing Upgrade Project*. June 15.
- California Department of Transportation (Caltrans). 2022j. Caltrans Water Quality Planning Tool. Watershed Boundary Dataset. <http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx>. Accessed May 31, 2022.

- California State Water Resources Control Board (SWRCB). 2017. *Final California 2014 and 2016 Integrated Report (303(d) List/305(b) Report) Supporting Information*.
https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/table_of_contents.shtml. Accessed May 16, 2022.
- California State Water Resources Control Board (SWRCB). 2006. *Water Quality Control Plan for the San Francisco Bay Basin*. Updated May 4, 2017.
https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/bp_ch1-7_print.html. Accessed May 16, 2022.
- California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants (Online Edition, v7-08d). <https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants>. Accessed April 8.
- California Ocean Protection Council. 2018. *State of California Sea-Level Rise Guidance, 2018 Update*.
https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A OPC SLR Guidance-rd3.pdf. Accessed May 16, 2022.
- Federal Emergency Management Agency (FEMA). 2020. *National Flood Hazard Layer Viewer*. <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>. Accessed May 16, 2022.
- Federal Highway Administration. 2014. *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, As it Pertains to the Administration of the Federal-Aid Highway Program in California*.
<https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/106pa-14-a11y.pdf>. Accessed May 16, 2022.
- Graymer, R.W. 2002. "Geologic map and map database of Northeastern San Francisco Bay Region, California. Most of Solano County and Parts of Napa, Marin, Contra Costa, San Joaquin, Sacramento, Yolo, and Sonoma Counties, California." U.S. Geological Survey Miscellaneous Field Studies Map MF-2403, version 1.0, 30 p., 1 sheet, scale 1:100,000, 20 Arc/Info coverages,

resolution 1:62,500. <https://pubs.usgs.gov/mf/2002/2403/>. Accessed May 16, 2022.

Hart, E.W., compiler. 1998. "Fault number 32, Rodgers Creek fault." in *Quaternary fault and fold database of the United States: U.S. Geological Survey*. https://earthquake.usgs.gov/cfusion/qfault/show_report_AB_archive.cfm?fault_id=32§ion_id=. Accessed May 16, 2022.

Miller, R.V., S.L. Kohler, L.L. Busch, D.L. Dupras, and J.P. Clinkenbeard. 2005. *Mineral Land Classification of Aggregate Materials in Sonoma County, California*. California Geological Survey (formerly Division of Mines and Geology) Special Report 175.

National Oceanographic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries). 2022. California Species List Tool.

Natural Resources Conservation Service (NRCS). 2022. *Web Soil Survey Map and Resource Report for Caltrans 2Q440, California*. United States Department of Agriculture. <http://websoilsurvey.nrcs.usda.gov/>. Accessed May 16, 2022.

Sonoma County. 2001. *Sonoma County Comprehensive Airport Land Use Plan*. <https://permitsonoma.org/longrangeplans/adoptedlong-rangeplans/airportlanduseplan>. Accessed on May 16, 2022.

Sonoma County. 2006. *Sonoma County General Plan 2020, Public Safety Element*. Amended September 9, 2014. <https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Long%20Range%20Plans/General-Plan-Public-Safety-Element.pdf>. Accessed May 16, 2022.

Sonoma County. 2020a. *Sonoma County General Plan. Land Use Element*. https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Pre-2022/Department%20Information/Cannabis%20Program/_Documents/General-Plan-Land-Use-Element.pdf. Accessed May 16, 2022.

Sonoma County. 2020b. *Sonoma County General Plan. Circulation and Transit Element*. https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Pre-2022/_Documents/General-Plan-Circulation-and-Transit.pdf. Accessed May 16, 2022.

- Sonoma County. 2022a. Sonoma County GIS Parcel and Zoning Map Viewer. <https://sonomacounty.maps.arcgis.com/apps/webappviewer/index.html?id=06ac7fe1b8554171b4682dc141293962>. Accessed May 16, 2022.
- Sonoma County. 2022b. *Sonoma County Emergency Operations Plan*. <https://sonomacounty.ca.gov/administrative-support-and-fiscal-services/emergency-management/plans>. Accessed May 16, 2022.
- Sonoma County. 2022c. County of Sonoma, Emergency Readiness, Response, and Recovery, Fire Departments. <https://socoemergency.org/emergency/fire-departments/>. Accessed May 16, 2022.
- Sonoma County Transportation Authority (SCTA). 2014. SCTA Countywide Bicycle and Pedestrian Master Plan. https://scta.ca.gov/wp-content/uploads/2016/07/BikePedPlanUpdate2014_final.pdf. Accessed June 17, 2022.
- State Water Resources Control Board (SWRCB). 2022. GeoTracker. https://geotracker.waterboards.ca.gov/profile_report?global_id=T0609758212. Accessed May 16, 2022.
- U.S. Environmental Protection Agency (EPA). 2022. *Non-attainment Areas for Criteria Pollutants* (Green Book). https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Accessed May 16, 2022.
- U.S. Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation (IPaC) System. <https://ipac.ecosphere.fws.gov/>. Accessed April 8.
- Wagner, D.L, C.E. Randolph-Loar, S.P. Bezore, R.C. Witter, and J. Allen. 2002. Geologic map of the Sears Point 7.5' quadrangle, Sonoma, Solano, and Napa counties, California—A digital database, version 1.0: California Geological Survey Preliminary Geologic Map. http://www.conservation.ca.gov/cgs/rgm/rgm/Pages/preliminary_geologic_maps.aspx. Accessed May 16, 2022.
- Wilson, Chris. California Department of Transportation, Office of Environmental Engineering. Personal communication with Sam Schoevaars of Jacobs. January 31, 2022.