Saratoga Creek Bridge Project

SANTA CLARA COUNTY, CALIFORNIA
DISTRICT 4 – SCL – 9, (PM 4.75/4.9)
04-3G630/0412000409

Final Environmental Impact Report/ Environmental Assessment and Final Section 4(f) Evaluation with Finding of No Significant Impact

Prepared by the
State of California, Department of Transportation

January 2020

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

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General Information about this Document

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Final Environmental Impact Report/Environmental Assessment (EIR/EA) for the proposed project located in Santa Clara County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is also the lead agency under the California Environmental Quality Act (CEQA). This document tells you why this project is being proposed, what alternatives have been considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures. The Draft EIR/EA was circulated to the public for 45 days between February 12, 2018 and March 29, 2018. Comments received during this period are included in Appendix K. Elsewhere throughout this document, a vertical line in the margin indicates a change made since the draft document circulation. Minor editorial changes and clarifications are not indicated. Additional copies of this document are available for review at:

District 4 Office	Saratoga City Hall	Saratoga Library
111 Grand Ave	13777 Fruitvale Ave	13650 Saratoga Ave
Oakland, CA 94610	Saratoga, CA 95070	Saratoga, CA 95070

This document may also be downloaded at the following websites:

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

https://dot.ca.gov/caltrans-near-me/district-4/d4-projects/d4-santa-clara-sr9-saratoga-creek-bridge

Alternate formats:

For individuals with sensory disabilities, this document can be made available in Braille, in large print, or digital audio. To obtain a copy in one of these alternate formats, please call or write to California Department of Transportation, Attn: Brian Gassner, Environmental Branch Chief, P.O. Box 23660, Oakland, CA 94623-0660 (510) 286-6025 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

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SCH# 2016042012
04-SCL-09-PM 4.75/4.9
04-3G630
0412000409

In Santa Clara County, Construct Hybrid Bridge or Replace Saratoga Creek Bridge on State Route 9 (post mile 4.75 to postmile 4.9)

Final ENVIRONMENTAL IMPACT REPORT/
ENVIRONMENTAL ASSESSMENT
and Final Section 4(f) Evaluation with Finding of No Significant Impact

Submitted Pursuant to: (State) Division 13, California Public Resources Code (Federal) 42 USC 4332(2)(C), 49 USC 303, and/or 23 USC 138

THE STATE OF CALIFORNIA
Department of Transportation

Cooperating Agencies: Federal Highway Administration, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service

Responsible Agencies: California Transportation Commission, California State Historic Preservation Officer, Santa Clara County, California Department of Fish and Wildlife, S.F. Regional Water Quality Control Board

Date	Tony Tavares District Director California Department of Transportation CEQA/NEPA Lead Agency

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CALIFORNIA DEPARTMENT OF TRANSPORTATION FINDING OF NO SIGNIFICANT IMPACT (FONSI)

FOR

Saratoga Creek Bridge Project
04-SCL-09-PM 4.75/4.9
EA 04-3G630/EFIS 0412000409

The California Department of Transportation (Caltrans) has determined that Alternative 1.1, Maintain Existing Roadway Alignment with “Hybrid” Bridge, will have no significant impact on the human environment.

This FONSI is based on the attached Environmental Assessment (EA) and associated technical studies, which have been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EA and associated technical studies.

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

_____ _____

Date

Tony Tavares
District Director
California Department of Transportation

Summary

NEPA Assignment

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 U.S. Code (USC) 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on December 23, 2016, for a term of five years. In summary, Caltrans continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and Caltrans assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to Caltrans under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

The proposed project is a joint project by Caltrans and FHWA, and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. Caltrans is the lead agency under NEPA and also under CEQA. In addition, FHWA’s responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC Section 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Under CEQA, impacts to each resource are individually evaluated and addressed for significance level. However, under NEPA the significance of the action as a whole is evaluated

through context and intensity of all combined impacts. Because NEPA is concerned with the significance of the project as a whole, often a “lower level” document is prepared for NEPA. One of the most common joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

Caltrans prepared a Draft EIR/EA, which was finalized on February 7th, 2018. The Draft Environmental Document (DED) was circulated to the public from February 13, 2018 to March 29, 2018 for review and comment. After circulating the DED and receiving comments from the public and reviewing agencies, this Final EIR/EA has been prepared. The alternatives presented in the Final Environmental Document (FED) include some modifications from those presented in the DED.

Caltrans received numerous comments on the DED that focused on the duration of construction and the loss of the existing bridge’s historic character. Based on the input received, Caltrans’ Project Development Team has generated the two options, the “Hybrid” Alternative and the ABC Alternative. These alternatives are based off the draft document’s Alternative 1-- Retrofit The Existing Bridge Along Current Alignment. Neither alternative introduces new significant impacts not previously discussed in the draft document.

This document includes responses to comments received on the Draft EIR/EA and has identified a preferred alternative, which is the “Hybrid” Alternative. Caltrans has decided to issue a Finding of No Significant Impact (FONSI) for compliance with NEPA. A Notice of Determination (NOD) will be published for compliance with CEQA, and a Notice of Availability (NOA) of the FONSI will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with EO 12372.

Introduction

Caltrans proposes to address the Saratoga Creek Bridge seismic and structural concerns, either by constructing a new bridge within the existing bridge or replacing the existing bridge with a new bridge. This final environmental document for the Saratoga Creek Bridge project evaluates one No Build and two Build Alternatives. The Alternatives evaluated in this final EIR/EA are as follows:

1. Alternative 1.1: Maintain Existing Roadway Alignment with “Hybrid” Bridge (Hybrid Alternative)
2. Alternative 1.2: Maintain Existing Roadway Alignment with New Accelerated Bridge Construction (ABC) Bridge (ABC Alternative)
3. Alternative : No Build Alternative

These alternatives were developed as a response to the public comments on the alternatives included in the draft EIR/EA. Discussion of those alternatives and how the “Hybrid” Alternative and ABC Alternative were developed are included in Section 1.6, Comparison of Alternatives.

Overview of the Project Area

State Route (SR-) 9 is a 38.6-mile-long highway that travels from SR-1 near the City of Santa Cruz to SR-17 in the Town of Los Gatos, traversing the Santa Cruz Mountains and passing through San Lorenzo Valley and the Saratoga Gap.

The majority of SR-9 is a rural, two-lane highway that passes through both Santa Clara County and Santa Cruz County in the State of California (Figure 1-1). From the Santa Cruz County line to the Los Gatos town limit, SR-9 is an officially designated State Scenic Highway and the remainder of SR-9 (from the Santa Cruz County line to SR-1) is eligible to be included in the State Scenic Highway System. The only urbanized portions of the route are through parts of the Town of Los Gatos, the City of Saratoga, and the City of Santa Cruz. The route also passes through four smaller communities: Redwood Grove, Brookdale, Ben Lomond, and Felton.

The proposed project would be constructed between post miles (PM) 4.75 and 4.9, along the officially designated State Scenic Highway segment of SR-9. This location is 0.5 mile west of the boundary of the City of Saratoga, next to the intersection of SR-9 and Sanborn Road. Near the intersection, east of Sanborn Road and south of SR-9, is Sanborn County Park (Figure 1-2). Sanborn Creek is located on the west side of Sanborn Road and crosses SR-9, approximately 25 feet west of the intersection. Sanborn Creek feeds into Saratoga Creek less than a mile downstream of the project site.

The existing bridge along SR-9 was constructed in 1902 as a two-span, earth-filled, concrete arch, with rubble masonry spandrel[1] walls. It has been deemed eligible for the National Register of Historic Places. The total length of the bridge is 146 feet. The width of the bridge consists of two 12-foot-wide lanes, for a total of 24 feet (from curb to curb), with no shoulders. The bridge has no pedestrian or bicycle accommodations. The average height of the bridge deck is approximately 40 feet from the creek bed of Sanborn Creek.

Purpose and Need

Project Purpose

The purpose of the project is to maintain safe and stable connectivity along SR-9, between the City of Saratoga in Santa Clara County and the community of Felton in Santa Cruz County.

Project Need

The need for this project results from the structural and seismic deficiencies in the existing Saratoga Creek Bridge (Bridge No. 37 0074). The need was determined in a 2004 Bridge Inspection Report by the Caltrans Office of Structures Maintenance and Investigations (Office of Structures Maintenance and Investigations 2004). This report determined that there were seismic and structural deficiencies in the bridge which could undermine the future ability of the structure to continue providing reliable traffic service.

In March 2011, Caltrans' Office of Structural Materials performed a subsequent in-depth geotechnical investigation to identify the material properties used to construct the existing bridge. A Bridge Inspection Records Information System (BIRIS) report was written based on the findings of this investigation (Division of Maintenance 2013).

The bridge inspection team found no evidence of bar-reinforcing steel at the bridge abutments[2] or at the pier[3]. The report also revealed that the material properties do not meet the strength and mechanical property standards for

[1] A spandrel is the triangular space between a side of the outer curve of an arch, a wall, and the ceiling or framework.
[2] A bridge abutment is the part of the bridge foundation that rests on the ground at either end of the bridge.
[3] A pier is the main support column for the span of the bridge deck that crosses between abutments.

current bridge design. The continued mortar joint deterioration and lack of reinforcement within the bridge make it susceptible to damage during a seismic event, particularly considering the close proximity of the bridge to the San Andreas fault system, located approximately half a mile away. Figure 1-3 shows the location of the bridge with respect to the San Andreas fault system.

Proposed Action

Caltrans proposes to address the Saratoga Creek Bridge's seismic and structural concerns by either constructing a new bridge within the existing bridge in a manner that preserves the look of the existing bridge or through the complete replacement of the existing bridge with a new bridge. The existing bridge provides a crossing for SR-9 over Sanborn Creek.

The "Hybrid" Alternative would construct a new bridge within the existing bridge while maintaining much of the original outer structure without modification. The ABC Alternative would replace the existing bridge with a new one on the same alignment as the existing bridge. The No-Build Alternative would not change the bridge and would only continue standard maintenance of the bridge.

The "Hybrid" Alternative has been selected as the preferred alternative because it meets the project's purpose and need of maintaining safe and stable connectivity along SR-9, while also retaining much of the visual aesthetics of the existing structure by avoiding the concealment or removal of the current bridge's stone masonry walls. This concern was a recurring public comment during circulation of the draft EIR/EA. This alternative also anticipates a shorter duration of construction and traffic management impacts in comparison to the ABC Alternative.

Both build alternatives require vegetation clearing in the immediate area around the existing bridge and will install a temporary creek crossing/diversion for Sanborn Creek below the intersection of SR-9 and the creek. Additionally, both build alternatives will also have an adverse effect on the historic designation of the bridge.

Table S-1 summarizes the potential environmental impacts that have been identified through the studies performed by Caltrans in the preparation of this document. This table covers permanent impacts from both construction and

operation of the proposed project. For a complete description of potential effects and recommended measures (including temporary construction effects), please refer to the specific sections within Chapter 2 and Appendix C of this document.

Construction Cost

This project is included in the 2017 Transportation Improvement Program and is proposed for funding from the 2017 State Highway Operation and Protection Program. The Transportation Improvement Program ID for this project is VAR170010. It is also included in the Metropolitan Transportation Commission's 2017 Regional Transportation Plan and the 2017 California Transportation Infrastructure Priorities.

- The estimated construction cost for the "Hybrid" Alternative is approximately $15,500,000. This construction cost does not include right of way acquisition costs.
- The estimated construction cost for the ABC Alternative is approximately $15,000,000. This construction cost does not include right of way acquisition costs.

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Land Use				
Existing and Future Land Use	No impact	No impact	No impact	None
Consistency with State, Regional, and Local Plans and Programs	No impact	No impact	No impact	None
Compatibility with habitat conservation plan	No impact	No impact	No impact	None
Located in a Coastal Zone	No impact	No impact	No impact	None
Located near Wild and Scenic Rivers	No impact	No impact	No impact	None
Parks and Recreational Facilities	No impact	No impact	No impact	None
Farmlands				
Farmland Acquisition	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Williamson Act Property Acquisition	No impact	No impact	No impact	None
Growth				
No effect				
Community Impacts				
Community Character and Cohesion	No impact	No impact	No impact	None
Relocations and Real Property Acquisition	No impact	No impact	No impact	None
Environmental Justice	No impact	No impact	No impact	None
Utilities/Emergency Services				
Utilities	No impact	Electrical and telephone utilities will be temporarily relocated	Electrical and telephone utilities will be temporarily relocated	None
Emergency Services	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Traffic and Transportation/Pedestrian and Bicycle Facilities				
Bicycle Facilities	No impact	Increased accessibility (permanent)	Increased accessibility (permanent)	None
Pedestrian Facilities	No impact	No impact	No impact	None
Traffic	No impact	No impact	No impact	None
Visual/Aesthetics				
Adverse effect on scenic views/damage scenic resources	No impact	Moderate due to tree removal, encasement of historic bridge, and bridge widening (permanent)	High due to tree removal, bridge widening (permanent), retaining wall installation (permanent), removal of historic bridge (permanent), and hillside cutting (permanent).	AMM Visual-1: Bridge aesthetic treatment.

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Degradation of existing visual character or quality	No impact	Moderate-High due to tree removal and bridge widening (permanent).	High due to tree removal, bridge widening (permanent), and retaining wall installation (permanent).	AMM Visual-2: Funding for mitigation planting. AMM VISUAL-1: Retaining wall aesthetic treatment.
Create a new source of light or glare	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Cultural Resources				
Create an adverse change in the significance of an historical resource	No impact	Substantial adverse change to Saratoga Creek Bridge through modification (permanent).	Substantial adverse change to Saratoga Creek Bridge through demolition (permanent).	AMM CULT-1: Historic American Building Engineering Record Survey (HAER) – Level II Documentation. AMM CULT-2: Digital Scan of Bridge. AMM CULT-3: Historical Narrative. AMM CULT-4: Campfire Program with Sanborn County Park. AMM CULT-5: Digital Content for Electronic Historic Platform(s).
Create an adverse change in the significance of an archaeological resource	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Disturbance to human remains	No impact	No impact	No impact	None
Hydrology and Floodplain				
No impact				
Water Quality and Stormwater Runoff				
Result in substantial drainage pattern alteration	No impact	>1 acre of new impervious surfaces will be added (permanent).	>1 acre of new impervious surfaces will be added (permanent).	AMM WATER-1: Water treatment BMPs. AMM WATER-2: Permanent water treatment BMPs.
Violation of water quality standards	No impact	No impact	No impact	None
Change to groundwater supply or groundwater recharge	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Substantially degrade water quality	Deposition and transport of sediment and vehicular-related pollutants (temporary)	Deposition and transport of sediment and vehicular-related pollutants (temporary).	Deposition and transport of sediment and vehicular-related pollutants (temporary).	AMM WATER-3: Stormwater pollution prevention plan. AMM WATER-4: Erosion prevention.
Geology/Soils/Seismic/Topography				
Expected likelihood of seismic related issues, including ground shaking and liquefaction	No impact	No impact	No impact	None
Expose people or structures to potential adverse effects	No impact	No impact	No impact	None
Mineral resources	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Paleontology				
Destruction of paleontological resources (e.g., fossil remains and sites) as a result of ground disturbance	No impact	Excavation in undisturbed areas may impact paleontologically sensitive geologic layers (permanent).	Excavation in undisturbed areas may impact paleontologically sensitive geologic layers (permanent).	AMM PALEO-1: Worker Paleontological Training.
Hazardous Waste/Materials				
No impact				
Air Quality				
No impact				
Noise				
No impact				
Energy				
No impact				

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Natural Communities				
Impacts to natural communities	No Impact	1.5 acres (permanent) 0.43 acre (temporary)	1.66 acres (permanent) 0.64 acre (temporary)	AMM BIO-1: ESA fencing. AMM BIO-2: Tree removal tally. AMM BIO-3: Tree replacement AMM BIO-4: Riparian habitat replacement.
Wetlands and Other Waters				
Impacts to jurisdictional waters of the U.S.	No impact	< 0.01 acre (permanent) 0.14 acre (temporary)	0.01 acre (permanent) 0.14 acre (temporary)	None
Plant Species				
Robust Spine Flower	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Animal Species				
Special status Bat Species	No impact	Potential to impact	Potential to impact	None
San Francisco Dusky-footed Woodrat	No impact	Potential to impact	Potential to impact	None.
Foothill Yellow-legged Frog	No impact	No impact	No impact	Also: AMM BIO-1, 3, & 4.
Western Pond Turtle	No impact	Loss of <0.01-acre of potential aquatic dispersal habitat from RSP placement (permanent) 0.18-acre of disturbance to potential aquatic dispersal habitat from creek diversion (temporary) Potential direct impacts to individuals	0.19-acre of disturbance to potential aquatic dispersal habitat from creek diversion (temporary) Potential direct impacts to individuals	Also: AMM BIO-1, 3, & 4.

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Special status Salamanders	No impact	0.19-acre of disturbance to potential aquatic habitat from RSP, tree removal (permanent) and creek diversion (temporary) 0.5 acres of disturbance to upland habitat from bridge widening and construction, RSP, and guardrail construction (permanent). 1.94-acre of disturbance to upland habitat from staging and utility relocation, temporary detour route, construction access road, and vegetation removal (temporary) Potential direct impacts to individuals	0.19-acre of disturbance to potential aquatic habitat from tree removal (permanent) and creek diversion (temporary) 1.49 acres of disturbance to upland habitat from bridge widening and construction; temporary construction access road; temporary detour route, and vegetation removal (permanent) 0.5-acre of disturbance to upland habitat from staging and utility relocation (temporary) Potential direct impacts to individuals	Also: AMM BIO-1, 3, & 4.

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Special status Fish Species	No impact	0.19-acre of disturbance to aquatic habitat from RSP, tree removal (permanent) and creek diversion (temporary) Potential direct impacts to individuals	0.19-acre of disturbance to aquatic habitat from tree removal (permanent) and creek diversion (temporary) Potential direct impacts to individuals	AMM BIO-7: Fish species relocation plan. Also: AMM BIO-1, 3, & 4.
White-tailed Kite	No impact	No impact	No impact	None
Long-eared Owl	No impact	No impact	No impact	None

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
California Red-legged Frog	No impact	0.19-acre of disturbance to aquatic dispersal habitat from RSP, tree removal (permanent) and creek diversion (temporary) 0.50 acres of disturbance to upland habitat from bridge widening and construction; and RSP (permanent) 1.94-acre of disturbance to upland habitat from bridge construction access, temporary construction detour route, vegetation removal, staging and utility relocation (temporary) Potential direct impacts to individuals	0.19-acre of disturbance to aquatic dispersal habitat from tree removal (permanent) and creek diversion (temporary) 1.49 acres of disturbance to upland habitat from bridge widening and construction; temporary construction access road; and vegetation removal (permanent) 0.50-acre of disturbance to upland habitat from staging and utility relocation (temporary) Potential direct impacts to individuals	AMM BIO-8: California red-legged frog work window and timing. AMM BIO-9: California red-legged frog compensatory mitigation ratio. AMM BIO-10: Biological Monitor. AMM BIO-11: Preconstruction surveys. AMM BIO-12: Protected species discovery. AMM BIO-13: Handling protected species. Also: AMM BIO-1, 3, & 4.
Invasive species				
No impact				

Table S-1: Project Potential Impacts

Environmental Topic	No Build Alternative	Build Alternative 1.1 "Hybrid" Alternative	Build Alternative 1.2 ABC Alternative	Avoidance, Minimization, and/or Mitigation Measures
Cumulative Impacts				
Cumulative Visual Impacts	No impact	No impact	No impact	None
Cumulative Biological Impacts	No impact	No impact	No impact	None

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Chapter 1 Proposed Project

1.1 Introduction

Caltrans is the lead agency under both NEPA and CEQA for the Saratoga Creek Bridge Project. Caltrans proposes to address seismic and structural safety concerns related to the Saratoga Creek Bridge (Bridge No. 37 0074), located along SR-9, west of the City of Saratoga in Santa Clara County. The existing bridge is located where the route crosses Sanborn Creek, near the intersection of SR-9 and Sanborn Road.

The majority of SR-9 is a rural, two-lane highway that passes through both Santa Clara County and Santa Cruz County (Figure 1-1). From the Santa Cruz County line to the Los Gatos town limit, SR-9 is an officially designated State Scenic Highway. The total length of the project work area would cover approximately 0.15 miles, from PM 4.75 to PM 4.9, along the officially designated State Scenic Highway segment of SR-9. However, the project effects along SR-9 would extend about 2.7 miles, from PM 3.5 to PM 6.2, to include the areas where traffic control would begin and end.

The existing bridge was constructed in 1902 and has been deemed eligible for the National Register of Historic Places. The total length of the bridge is 146 feet. The width of the bridge consists of two 12-foot-wide lanes, for a total of 24 feet (from curb to curb), with no shoulders. The bridge has no pedestrian or bicycle accommodations. The average height of the bridge deck is approximately 40 feet from the creek bed of Sanborn Creek. Sanborn Creek is located on the west side of Sanborn Road and crosses SR-9. Sanborn Creek feeds into Saratoga Creek less than a mile downstream of the project site. East of Sanborn Road and south of SR-9, is Sanborn County Park (Figure 1-2).

This project is included in the 2019 Transportation Improvement Program (TIP) and is proposed for funding from the 2018 State Highway Operation and Protection Program. The TIP ID for this project is VAR170010. It is also included in the Metropolitan Transportation Commission’s 2017 Regional Transportation Plan and the 2017 California Transportation Infrastructure Priorities.

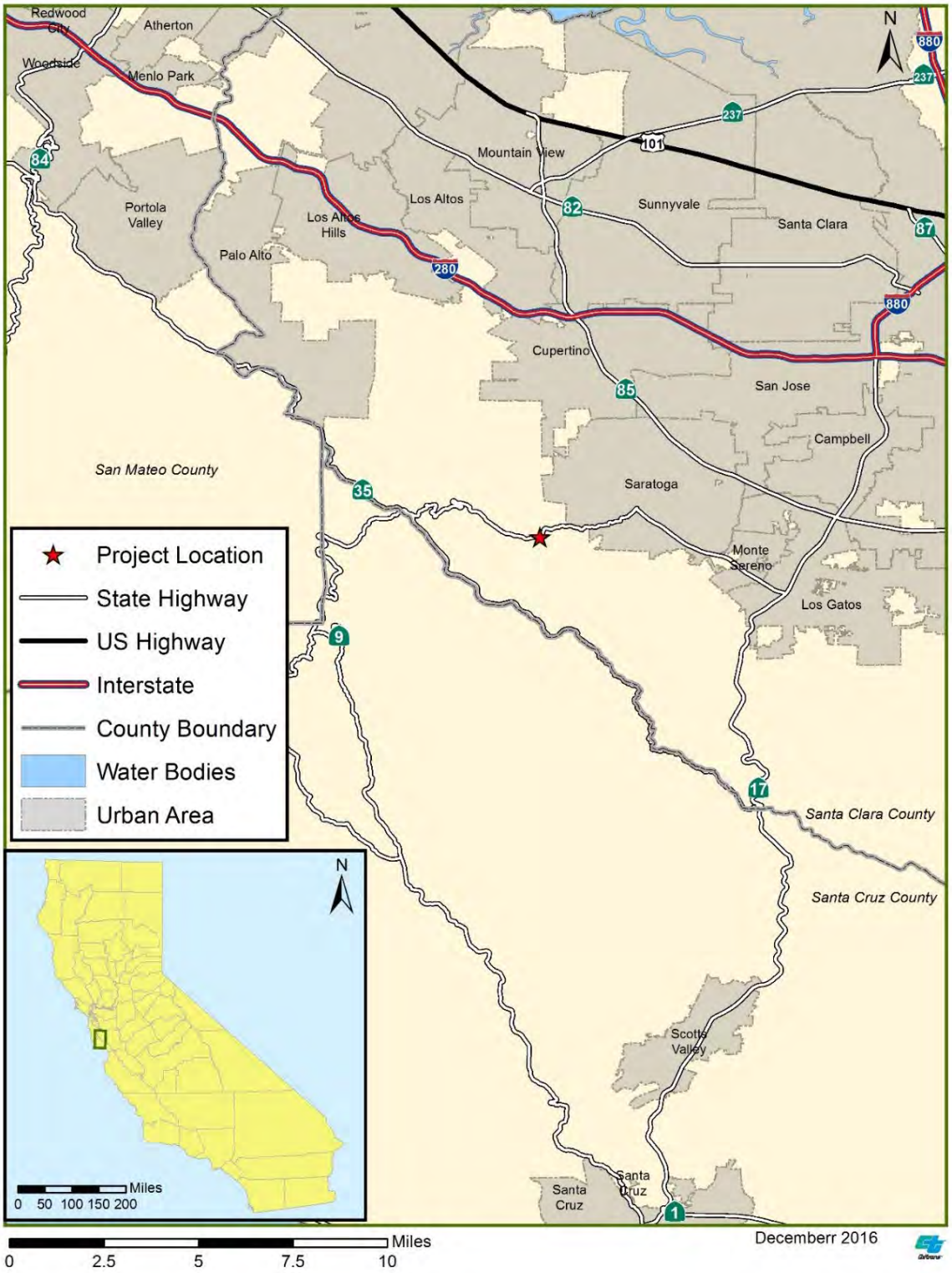


Figure 1-1: Saratoga Creek Bridge Project Location

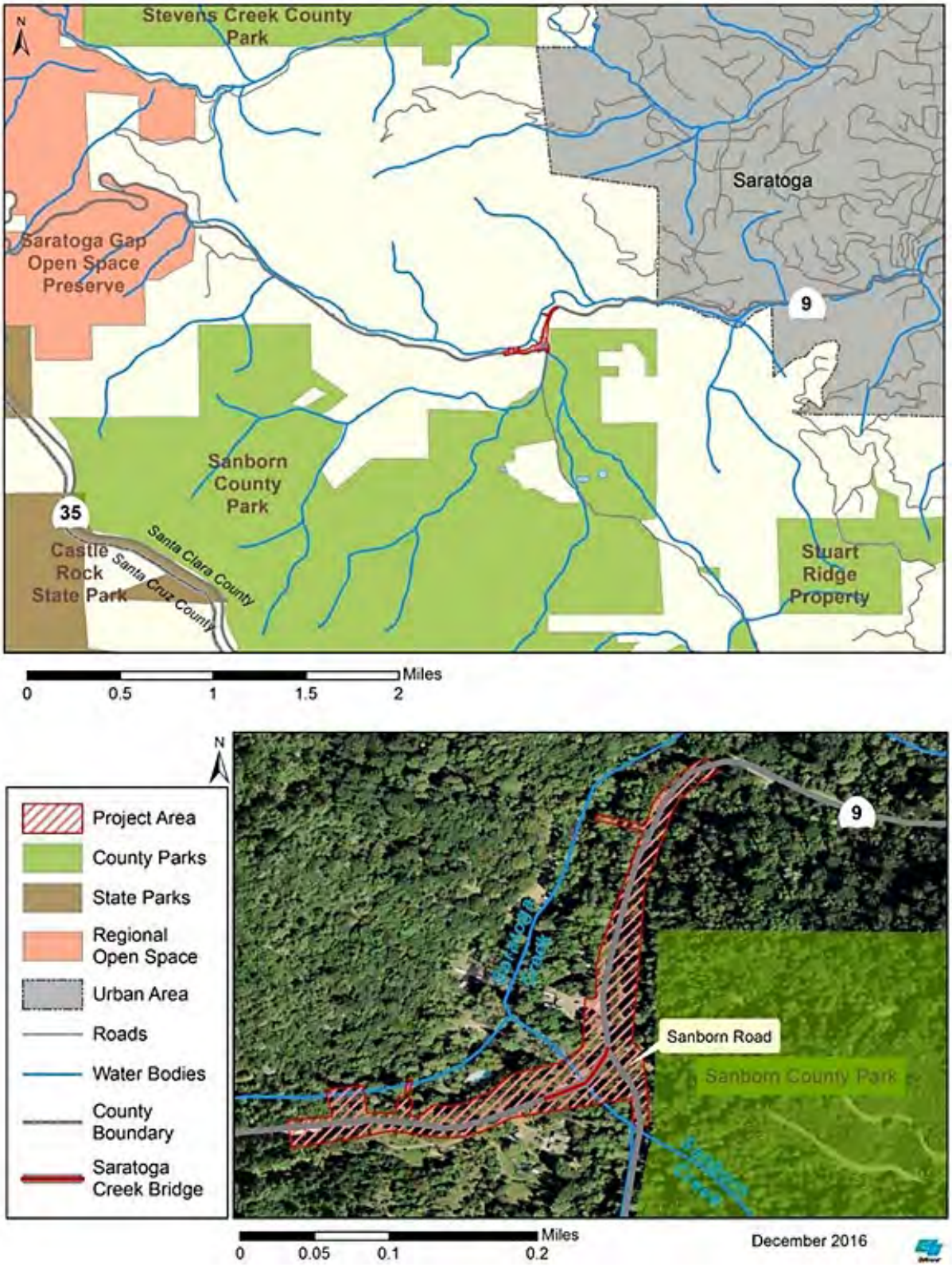


Figure 1-2: Saratoga Creek Bridge Project Vicinity Map

1.2 Purpose and Need

1.2.1 Project Purpose

The purpose of the project is to maintain safe and stable connectivity along SR-9, between the City of Saratoga in Santa Clara County and the community of Felton in Santa Cruz County.

1.2.2 Project Need

The need for this project results from the structural and seismic deficiencies in the existing Saratoga Creek Bridge, as described below. These deficiencies are a cause for concern regarding the bridge's future ability to continue providing safe and reliable traffic service.

The bridge's deficiencies were originally documented in a 2004 Bridge Inspection Report by the Caltrans' Office of Structures Maintenance and Investigations (Office of Structures Maintenance and Investigations 2004). The report determined that there were seismic, structural, hydraulic, and traffic safety deficiencies in the bridge that could undermine the structure's future ability to continue providing reliable traffic service.

In March 2011, the Office of Structural Materials performed a subsequent in-depth geotechnical investigation to identify the material properties used to construct the existing bridge. A Bridge Inspection Records Information System (BIRIS) report was written based on the findings of this investigation (Division of Maintenance 2013).

The bridge inspection team found no evidence of bar-reinforcing steel at the bridge abutments[4] or at the pier[5]. The report also revealed that the material properties do not meet the strength and mechanical property standards for current bridge design. The continued mortar joint deterioration and lack of reinforcement within the bridge make it susceptible to damage during a seismic event, particularly considering the close proximity of the bridge to the San Andreas fault system approximately half a mile away. Figure 1-3 shows the location of the bridge with respect to the San Andreas fault system.

[4] A bridge abutment is the part of the bridge foundation that rests on the ground at either end of the bridge.
[5] A pier is the main support column for the span of the bridge deck that crosses between abutments.

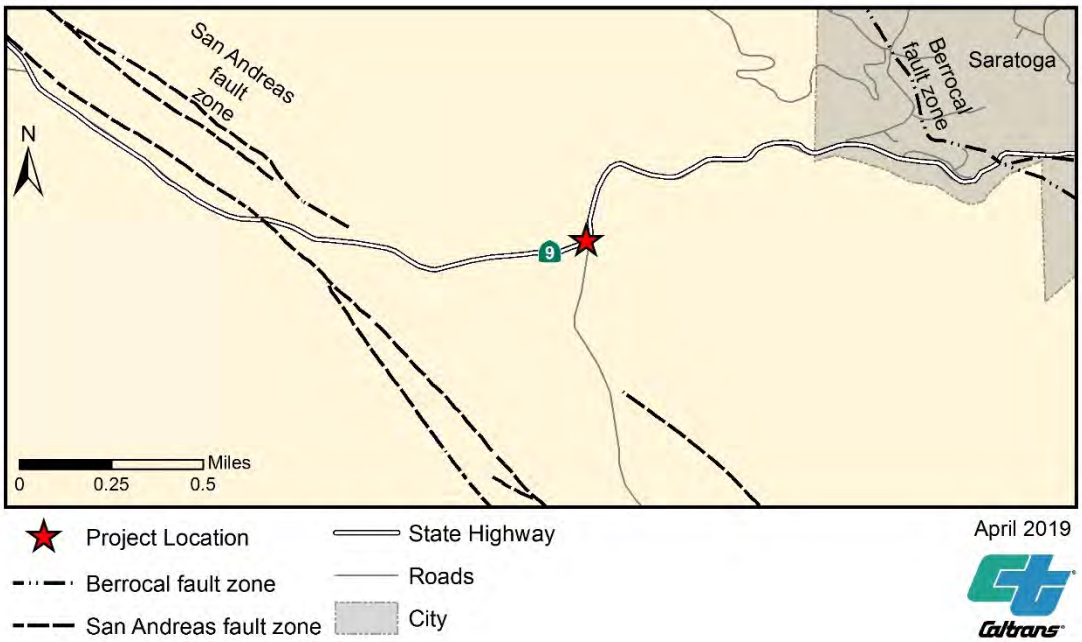


Figure 1-3: Proximity of Project to San Andreas Fault Zone

1.3 Independent Utility and Logical Termini

FHWA regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that the project be evaluated for independent utility and logical termini. “Logical termini” for a project are defined as rational end points for transportation improvements. These rational end points help facilitate a thorough review of environmental effects. Having “independent utility” means a project’s improvements are usable and constitute a reasonable expenditure, even if no additional transportation improvements are made in the area.

The Saratoga Creek Bridge is considered “structurally deficient” due to seismic concerns. The proposed project would address the deficiencies identified in the 2011 BIRIS report for the existing bridge. These deficiencies are only found within the bridge structure itself. Additional proposed features necessary to complete the construction process are also included in the project description for analysis. The proposed project is considered a single and complete project in-and-of itself because it is not dependent on other capacity increasing or operational improvements in the vicinity.

Postmiles 4.75 and 4.9 were selected as the beginning and end points, respectively, for the project, as these are the locations where the profile of the roadway matches the approaches of the bridge.

1.4 Project Description

This section describes the proposed action and the project alternatives developed to meet the purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are:

1. Alternative 1.1: Maintain Existing Roadway Alignment with “Hybrid” Bridge (“Hybrid” Alternative)
2. Alternative 1.2: Maintain Existing Roadway Alignment with New Accelerated Bridge Construction (ABC Alternative)
3. Alternative: No Build Alternative

The project is located in Santa Clara County on SR-9, a Scenic Highway, just east of the City of Saratoga, near the intersection of SR-9 with Sanborn Road. The project limits start at PM 4.75 and extend 0.25 mile to PM 4.9. The Saratoga Creek Bridge itself is located at PM 4.85, where SR-9 crosses Sanborn Creek. The existing bridge was constructed in 1902 as a two-span, earth-filled, unreinforced concrete arch bridge with rubble masonry spandrel walls. The total length of the bridge is 146 feet. The width of the bridge includes two 12-foot-wide lanes, for a total of 24 feet (from curb to curb), with no shoulder. The bridge has no pedestrian or bicycle accommodations. The average height of the bridge deck from the creek channel is about 40 feet.

1.5 Project Alternatives

The alternatives presented in this document include some modifications from those presented in the Draft Environmental Document that was circulated February 13, 2018 to March 29, 2018. Caltrans received numerous comments on the draft document. Many of those comments centered on the duration of construction and the loss of the existing bridge’s historic character. As a response to those and other comments, Caltrans’ Project Development Team generated two options based off the circulated alternatives. One alternative would be on the existing alignment, which significantly reduces the duration of construction while retaining the existing bridge’s historic character. The second alternative would also maintain the existing alignment and reduces the construction duration, in addition to reducing biological impacts by completely replacing the existing structure. Neither alternative introduces new

significant impacts not previously discussed in the draft document. The following alternatives have been evaluated based on their cost; duration of construction; travel time increases to the traveling public; and impacts to human, biological, and physical environments.

1.5.1 Common Design Features for Build Alternatives

A few common features are shared between both of the project's build alternatives. This project contains a number of standardized project measures which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project.

ENGINEERING DESIGN STANDARDS

Both of the proposed build alternatives would include engineering features that meet current standards for: seismic safety; stormwater runoff control and treatment; low-impact development; and hazardous materials control.

CONSTRUCTION STAGING AND STORAGE AREAS

The same two potential construction staging and materials storage areas are proposed for both build alternatives. The first area would be on the northern side of the foot of the existing bridge, where there is an existing picnic area for a private event venue (Figure 1-4). The second area would be in an existing overflow parking area in the southeastern corner of the project area at Sanborn Road and SR-9 (Figure 1-5).

Figure 1-4: View of the First Staging Area Located at the Foot of the Bridge

Figure 1-5: View of the Second Staging Area Located on the Corner of Sanborn Road and SR-9

ACCESS TO PROJECT SITE

Access to the project site would be the same for both build alternatives. There are two proposed temporary construction access road options.

Temporary Construction Access Road (TCAR) Option 1 would be cut into the side slope, below the roadway of SR-9. This road would parallel SR-9, starting approximately 600 feet west of the bridge and descend toward the bridge at a slope of approximately 1:6, or a 17 percent grade. The maximum width of the access road is 24 feet. The proposed Temporary Construction Easement for TCAR Option 1 is approximately 60 feet beyond the current right of way line or to the base of the slope. The existing side slope would be graded, and the existing vegetation would be removed as necessary. In locations where the side slopes are greater than 1:1, temporary retaining walls and/or a temporary trestle to support the base of the access road may also be necessary. The trestle would be composed of steel or wooden piles[6] driven into the hillside with steel and/or wooden beams and decking.

Access routes and construction area boundaries would be clearly marked before the start of construction or grading. This will help minimize the extent of construction impacts.

TCAR Option 2 would use an existing paved access road in the adjacent property to the north of the bridge. This road meanders downslope from the property's parking lot next to the eastern end of the bridge, down to the base of the bridge. An existing steel bridge over Sanborn Creek may be used by construction. If the bridge is later determined to be unable to support the heavier loads, the bridge may be strengthened or a separate temporary stream crossing may be proposed. Some areas along this path may need to have vegetation trimmed and the ground graded to accommodate equipment larger than what this access road was intended for. If this TCAR option is chosen, the existing road will not be widened. The road will be used as is, then repaved once construction is complete. Figure 1-6 shows the potential staging areas and temporary construction access road options.

[6] A pile is a long column, made of wood, steel, or concrete, which is usually drilled or driven down into the soil to provide vertical support for a bridge.

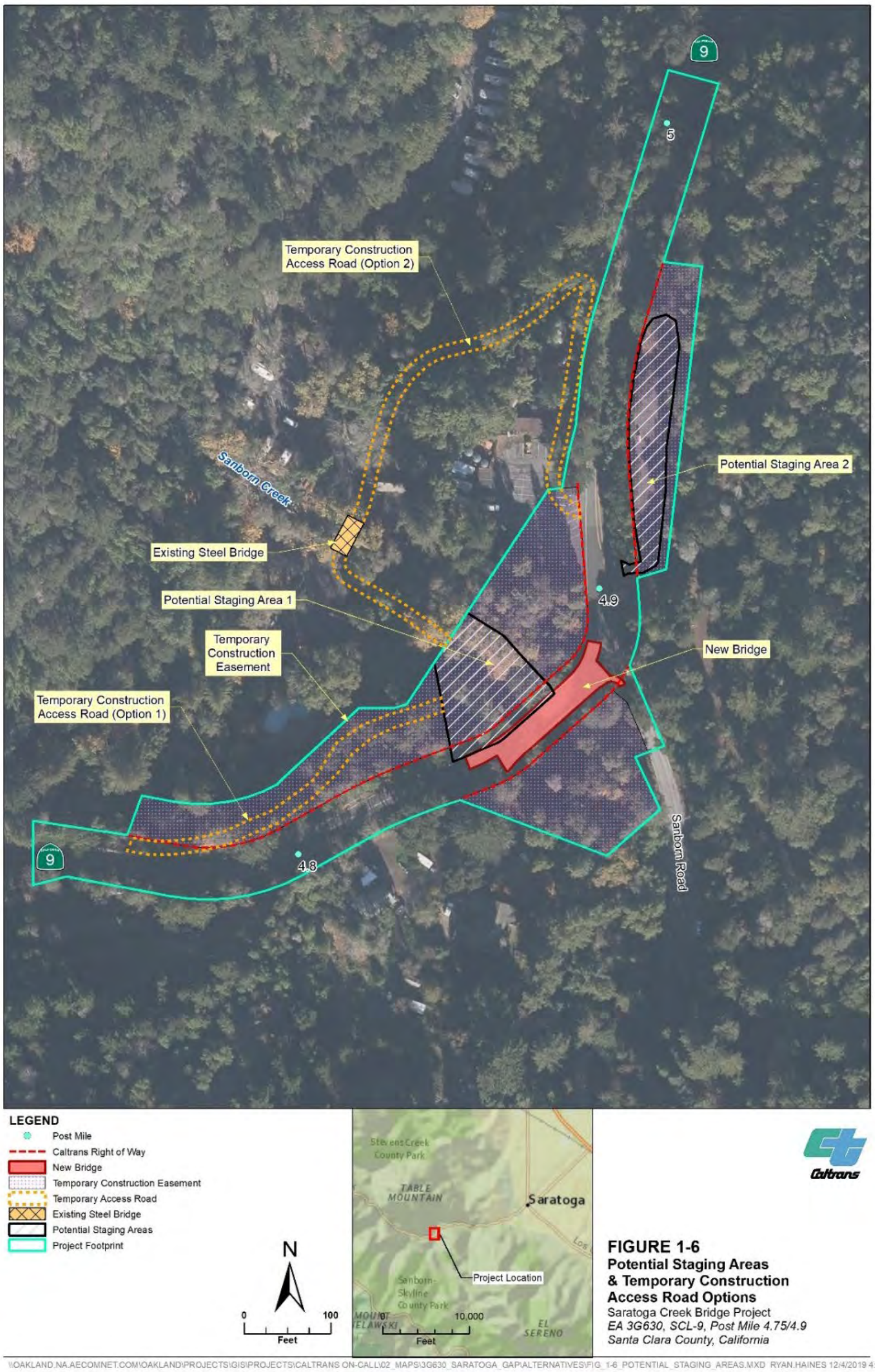


Figure 1-6 Potential Staging Areas and Temporary Construction Access Road Options

FALSEWORK

Falsework is an external temporary support system that is constructed under a structure to provide stability during construction and demolition activities. Falsework will be used to provide additional support to ensure stability of the existing structure during construction activities and for construction of the new bridge. The falsework would occupy the same footprint as the structure, and may extend 20 feet beyond the face of the structure to provide a working platform/walkway surface. Due to the proximity of the creek underneath the structure, the falsework supports may be situated on a temporary stream crossing or creek diversion system. The falsework would consist of either steel or wood. Heavy equipment and manual labor would be used to construct the falsework.

TEMPORARY CREEK CROSSING

A temporary creek crossing and/or creek diversion system would be used for both build alternatives. The construction contractor's crew and equipment would use the crossing as a means of accessing either side of the bridge (as a dry, level area for the temporary support) and for accessing the portion of the bridge that spans the creek.

The temporary crossing may be a culvert in the creek or a temporary bridge placed across the creek. A creek diversion system may use gravel bags, impermeable plastic membrane, sheet piles, or pipes. The crossing would be located beneath the bridge arch that spans the creek (see Figure 1-7). The crossing would only be in place during the dry season. The area impacted by these features would be restored once the crossing/diversion is no longer needed.

Figure 1-7: View of the Second Arch, which Spans Sanborn Creek

EQUIPMENT USE

The equipment used for the proposed work of both build alternatives would be the same. Cranes would be used in the various operations during construction, such as setting up the construction site, pile installation, and assisting with the delivery of construction materials. Excavators would be used to excavate and construct new roadway or retaining walls, the bridge abutments, and the bridge footing. Drilling equipment would be used in the construction of the bridge foundations and retaining walls. Concrete pumps would be used to place concrete for the various concrete structures. Other equipment may include loaders, manlifts, hoerams, jackhammers, backhoes, bulldozers, excavators, and compaction machines.

UTILITIES RELOCATION

The existing electrical and telephone utility poles within the project boundary would be temporarily relocated prior to construction. Their temporary locations would still be within the project boundary, but outside of the areas where active construction would take place. The utility poles would be temporarily relocated, using cranes, from the existing roadway or one of the built temporary construction access roads. This process would be completed as quickly as possible to minimize disruption to utilities. Some vegetation trimming may be required to provide a clear pathway for the utility lines between the new pole locations. If possible, the utility lines would be moved back to their original locations once the project is completed.

Erosion Control

All disturbed areas will be treated with standard Caltrans erosion control methods during and after construction.

Retaining Walls

Temporary and permanent retaining walls are proposed for various project features. Retaining walls proposed in general are cantilever type walls. Temporary shoring systems will be necessary to limit impacts to adjacent properties during construction. Where existing facilities are not impacted, and no additional right of way is required, cut slopes will be used instead of the retaining walls. All temporary retaining walls will be removed after construction and the slopes will be restored as close as possible to their original contours and replanted.

Drainage

A new drainage system would be required to accommodate the additional volume of rainwater collected from the newly widened bridge deck surface for both build alternatives. The new drainage system will be tied into the existing drainage systems. If the existing systems are determined to be inadequate, the existing system may be upgraded, including additional drainage inlets, as necessary. Drainage systems may include, but are not limited to, drainage inlets and gutters.

Traffic Management

Traffic management strategies will be implemented to minimize impacts to the traveling public. Two strategies are proposed for consideration. The first strategy proposes the use of long-term, one-way traffic control using a temporary detour roadway. The second strategy proposes a full closure of SR-9 at the project site and re-routing of traffic via a detour route.

The first traffic management strategy for consideration is long term, one-way traffic control, which would allow traffic to continually flow through the project site during construction. This option would initially require use of flaggers allowing traffic across the existing bridge in one direction at a time, while a temporary detour roadway is constructed. The detour roadway would run parallel, on the north side, to the existing Saratoga Creek Bridge (Figure 1-8). Upon completion of the detour roadway, traffic would be transferred to the temporary structure to bypass the project work area at the existing bridge

location. This structure would be used for the majority of the time during the project's construction.

Construction of the temporary detour roadway would require the construction of temporary retaining walls, a temporary bridge, and a new temporary section of roadway on both sides of the temporary bridge. The temporary retaining walls would be situated below SR-9, along the slopes of the creek bank and the side walls of the canyon. The retaining walls are anticipated to be 10 to 15 feet tall and approximately 50 feet long. The walls would create a level working surface for the construction of the temporary abutments, located at the ends of the temporary bridge. The walls would minimize the excavated cut and fill embankments necessary to construct the temporary detour roadway. Once the void behind the temporary walls are filled and leveled, the temporary bridge abutments would be constructed on top of the fill behind the retaining walls. The temporary bridge would then be set on the abutments by crane before the new roadway sections leading up to the temporary bridge are paved. Approximately 100 feet of new roadway section will be required at both ends of the temporary bridge. At this point, traffic would be redirected off of the existing alignment of SR-9 and onto the temporary bridge for the remaining duration of construction. A temporary traffic signal system will be used to control one-way traffic and traffic that is entering from Sanborn Road; Saratoga Springs Picnic and Campgrounds, Inc.; and the driveway of a private residential property.

This stage of construction is anticipated to take one to two months to complete. The detour roadway will be used for the duration of the new bridge construction. Upon completion of the new bridge, traffic will be returned to the existing alignment and temporary features, with the exception of piles, will be removed. After construction is complete, where the temporary retaining walls can be removed, the existing slope will be restored and replanted. The piles, if determined to be unsafe for removal due to soil destabilization, will be cut down three feet below soil surface. For this traffic management option, it is assumed that the temporary detour bridge will be completed prior the start of the permitted, seasonal construction window to ensure that the project is completed within one construction season.

The second traffic management strategy for consideration is the full closure of SR-9 at the project location for approximately 25 working days in regards to

the “Hybrid” alternative and approximately 148 working days for the ABC alternative. Traffic would be directed along a detour route during the entirety of project construction.

The detour route for traffic traveling northbound on SR-9 would be approximately 36 miles long. The route would add approximately 1 hour and 15 minutes to travel time during peak hours and approximately 1 hour and 10 minutes during non-peak hours. The detour route would direct northbound traffic on SR-9 to use Bear Creek Road to SR-17 and then to SR-9 along Los Gatos-Saratoga Road.

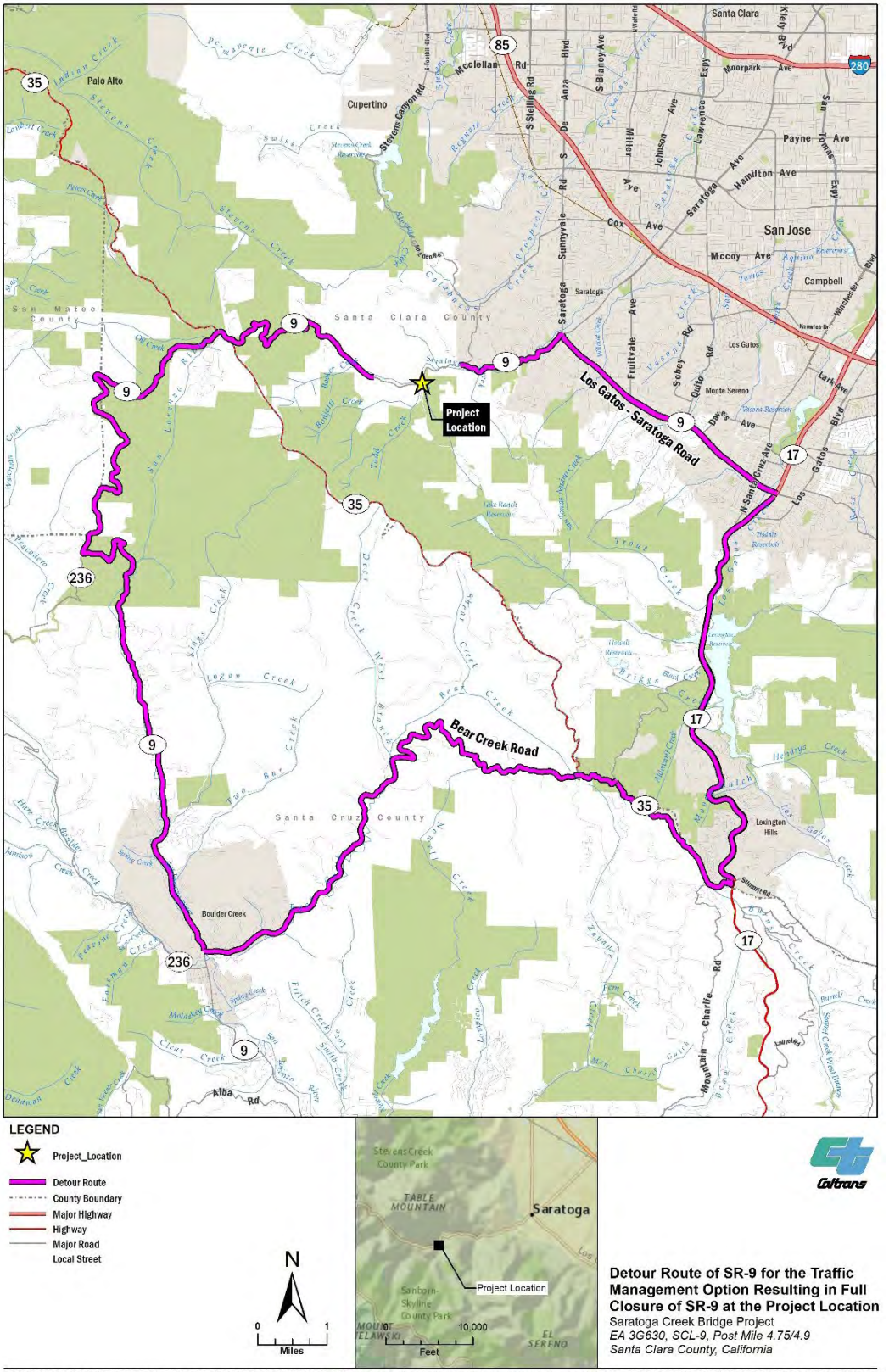
Southbound traffic on SR-9 would be routed approximately the same distance as northbound traffic, with approximately 1 hour and 19 minutes added during peak travel times and approximately 1 hour and 6 minutes added during non-peak travel times. Southbound traffic would be directed to use SR-9 along Los Gatos-Saratoga Road to SR-17 to Bear Creek Road until SR-9 again.

See Figure 1-9 for a map of the detour route for the full closure of SR-9. However, it is likely that local residents will use local roads, which may be shorter in distance and duration. The full closure of SR-9 will start once the usage of the existing bridge becomes unfeasible. SR-9 at the project location would continue to be closed until the new bridge deck has been constructed and cured. Afterwards, work on the bridge would continue behind temporary railing with one-way traffic control.

This strategy is proposed for consideration as a method of reducing the construction schedule and minimizing impacts to the natural surroundings compared to the construction of the temporary detour road. If selected, this strategy will require additional coordination with local residents and businesses, the traveling public, and local authorities to implement in order to minimize impacts to highway traffic and the communities.

A detailed Transportation Management Plan will be implemented to include public information/press releases to notify and inform motorists, business, community groups, local entities, emergency services, and politicians of any upcoming closures and detours. Lane closure charts, portable changeable message signs, and the Construction Zone Enhanced Enforcement Program (COZEEP) may be utilized to minimize and prevent delay and inconvenience to the traveling public.

Figure 1-8 Temporary Detour Bridge



Detour Route of SR-9 for the Traffic Management Option Resulting in Full Closure of SR-9 at the Project Location
Saratoga Creek Bridge Project
EA 3G630, SCL-9, Post Mile 4.75/4.9
Santa Clara County, California

Figure 1-9: Detour Route of SR-9 for the Traffic Management Option Resulting in Full Closure of SR-9 at the Project Location

Environmental Monitoring

A biological monitor would be present before and during construction to perform surveys and monitor for protected species. Water quality and stormwater monitoring is proposed for both Sanborn and Saratoga Creeks during construction.

Construction Work Windows

Standard construction windows would be employed to reduce and/or avoid work during time periods when natural resources are more vulnerable to potential construction impacts. The following work window would be used:

- Dry Season: Work within the creek bed and bank would be conducted during the dry season to reduce impacts to the creek, protected species, and habitats.

- No work would occur during, or within, 24 hours following a rain event that exceeds 0.2 inch of water, as measured by the National Oceanic and Atmospheric Administration National Weather Service for the San Jose, California (KRHV) base station. USFWS/CDFW approval to continue work during, or within, 24 hours of a rain event would be considered on a case-by-case basis. This would reduce the potential for soil erosion and other construction contaminants from entering into Sanborn Creek with stormwater runoff.

- Non-nesting Season: Vegetation removal will be conducted during the non-nesting season for migratory birds. Preconstruction surveys for active bird nests will be required for any vegetation removal done during the nesting season.

Environmentally Sensitive Areas

Environmentally sensitive areas (ESAs) would be designated where sensitive visual resources, cultural resources, biological resources, and properties protected under Section 4(f) are found, as discussed in detail in Chapter 2 and later in Appendix A: Section 4(f). Construction activities and personnel would not be allowed in these areas. ESAs would be clearly marked on the project plan sheets provided to the contractor and, when specified, delineated with high-visibility fencing. The high-visibility fencing would remain in place for the duration of construction and regularly inspected by the biological monitor.

Preconstruction Surveys

The biological monitor would perform preconstruction surveys for protected species prior to the start of construction activities. Standard, species-specific measures would be implemented if any protected species, active nests, or roosts are discovered.

Additional Project Features

Project features are those measures that are generally applied to most or all Caltrans projects and best management practices (BMPs) for stormwater, erosion control, job site management, and hazardous waste would be part of the project design and practiced onsite during construction. These include practices like using erosion control netting that is biodegradable, developing a spill response plan, and maintaining construction equipment away from water bodies. Further descriptions of these BMPs are in the natural resource sections for which they are relevant, in Chapter 2.

The project footprint and construction duration have been reduced to the extent practical for completing the project. Ways to further reduce the footprint will continue to be explored during the next phase of project design, in order to reduce potential impacts to natural resources and nearby properties outside of the Caltrans right of way. The extent of the construction area would be clearly marked and construction activities would not be allowed outside of the marked areas.

Vegetation clearing within the footprint would also be minimized to the greatest extent feasible. Construction would mostly be done during daylight hours to minimize impacts on nearby residences and the natural environment. If night work is required, construction lighting would be limited to within the project area of work and situated to avoid light spilling over into areas outside of the construction footprint.

Guardrails would be used in place of concrete barriers wherever feasible in order to minimize the visual intrusion of the built structures.

A replacement planting plan, using site-appropriate native plants, would be developed to restore disturbed areas after construction. The natural topography would be restored to the extent practicable, and replanting would be done as soon as cleared areas are no longer needed for construction

activities. Standard measures to reduce the spread of invasive species would be followed.

If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archeologist can assess the find.

If Caltrans Professionally Qualified Staff (PQS) determines that the cultural materials include human remains, State Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. The Caltrans Cultural Resource Studies Office will contact the Santa Clara County Coroner. Pursuant to California Public Resources Code (PRC) Section 5097.98, if the remains are determined by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendent. Caltrans' District 4 Cultural Resource Studies Office will work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Caltrans standard measures will be followed to avoid accidental entrapment of animals during construction. These measures include covering excavated holes or trenches that are more than a foot deep at the end of each work day. Such holes would also be inspected by the biological monitor for entrapped animals before they are filled. All pipes, culverts, or similar structures that are stored on site overnight would be inspected by the biological monitor before they are moved, capped, and/or buried.

Any fencing posts or signs that are installed temporarily or permanently throughout the course of construction shall have the top three post holes covered or filled with screws or bolts in order to prevent the entrapment of wildlife. The biological monitor shall be responsible for ensuring compliance with this measure and will inspect each post.

1.5.2 Unique Features of Alternatives

ALTERNATIVE 1.1 – MAINTAIN EXISTING ROADWAY ALIGNMENT WITH "HYBRID" BRIDGE

The Maintain Existing Roadway Alignment with "Hybrid" Bridge ("Hybrid" Alternative) proposes to construct a new steel girder bridge within the body of the existing bridge. The deck of the existing historic bridge will be removed and approximately 8 feet of its earthen fill will be dug out. New support columns will be placed at the abutments and center pier. The new bridge will be supported by the new columns. The masonry walls and stone arches of the existing bridge will remain and serve as a façade, concealing the support columns of the new bridge. The deck of the new bridge will appear to be supported by the historic masonry walls, however, it will not rely on the existing bridge for seismic stability. Removing the weight of traffic and the weight associated with upper part of the earthen fill is anticipated to improve the ability of the remnant structure to survive a seismic event. Minor cosmetic repairs and scour protective measures will be made to the remnant structure of the existing bridge to address some of the previously documented deficiencies. Please see Figure 1-10 Hybrid Alternative Cross Section.

The "Hybrid" Alternative meets the project's purpose and need of maintaining safe and stable connectivity on SR-9, while also retaining much of the visual aesthetics of the existing structure. This alternative was designed to both retain the look and feel of the existing stone bridge, while also reducing the duration of construction as a response to comments made during the circulation of the draft environmental document (DED). It reduces potential impacts to visual resources by maintaining some of the original built environment and minimizing tree removal. It will take the least amount of time to construct, therefore causing the least impact on traffic.

It is currently assumed this alternative will be completed in 1 construction season. Implementation of the temporary detour roadway traffic management strategy would require approximately 80 days of one-way traffic control. In comparison, implementation of the full road closure traffic management strategy would require approximately 30 days of full closure and 40 days of one-way traffic control.

The current estimated cost of construction is $15.5 million if the temporary roadway traffic management strategy is used and $14 million if the full closure

traffic management strategy is used. Figure 1-11, Alternative 1.1: Maintain Existing Roadway Alignment with “Hybrid” Bridge, shows the plan view for this alternative.

Construction of the new bridge would be completed in multiple stages. In the first stage, temporary support would be constructed underneath the existing structure to provide stability during construction. Temporary traffic barriers will be set on the bridge to accommodate one-way traffic. New support columns will be installed at the abutments and center pier on the closed portion of the bridge. Once completed, steel plates will be placed over the column locations, work will switch to the other side of the bridge, and the process will be repeated.

The selected traffic management strategy would be implemented in stage two of construction. The existing bridge will be closed and the entire bridge deck and a portion of the earthen-fill will be removed. Precast abutment and bent caps will be placed at the new abutments and piers. Steel girder sections will be placed on the bent caps and bolted together to form a series of continuous steel beam. Once all the girders are installed, then the precast, prestressed concrete deck panels will be installed on the girders. Approach slabs and a polyester-concrete overlay will then be constructed to tie the new bridge with the existing portion of SR-9.

The bridge will be ready to carry traffic at the beginning of stage three. The temporary railing would be placed on the bridge and the roadway reopened to traffic under one-way traffic control. New concrete barriers would be constructed during this time. SR-9 would be reopened to two-way traffic once all of the concrete barriers and guardrails are finished.

Minor cosmetic repairs to the joint mortar of the existing stone would be completed and then the support structures would be removed. Rock slope protection (RSP)[7], or similar scour protection countermeasures, will be placed along the creek bank at the central pier to prevent further undermining of the pier foundation due to the pre-existing scour concern from Sanborn Creek. Scouring occurs when high water flows wash away the supporting soil and undermine the stability of the structure. Once all other construction is

[7] RSP is layers of rock that are laid down on a slope to protect the soil of the slope from water erosion.

complete above the creek, the last task will be to remove the creek diversion system and/or temporary stream crossing.

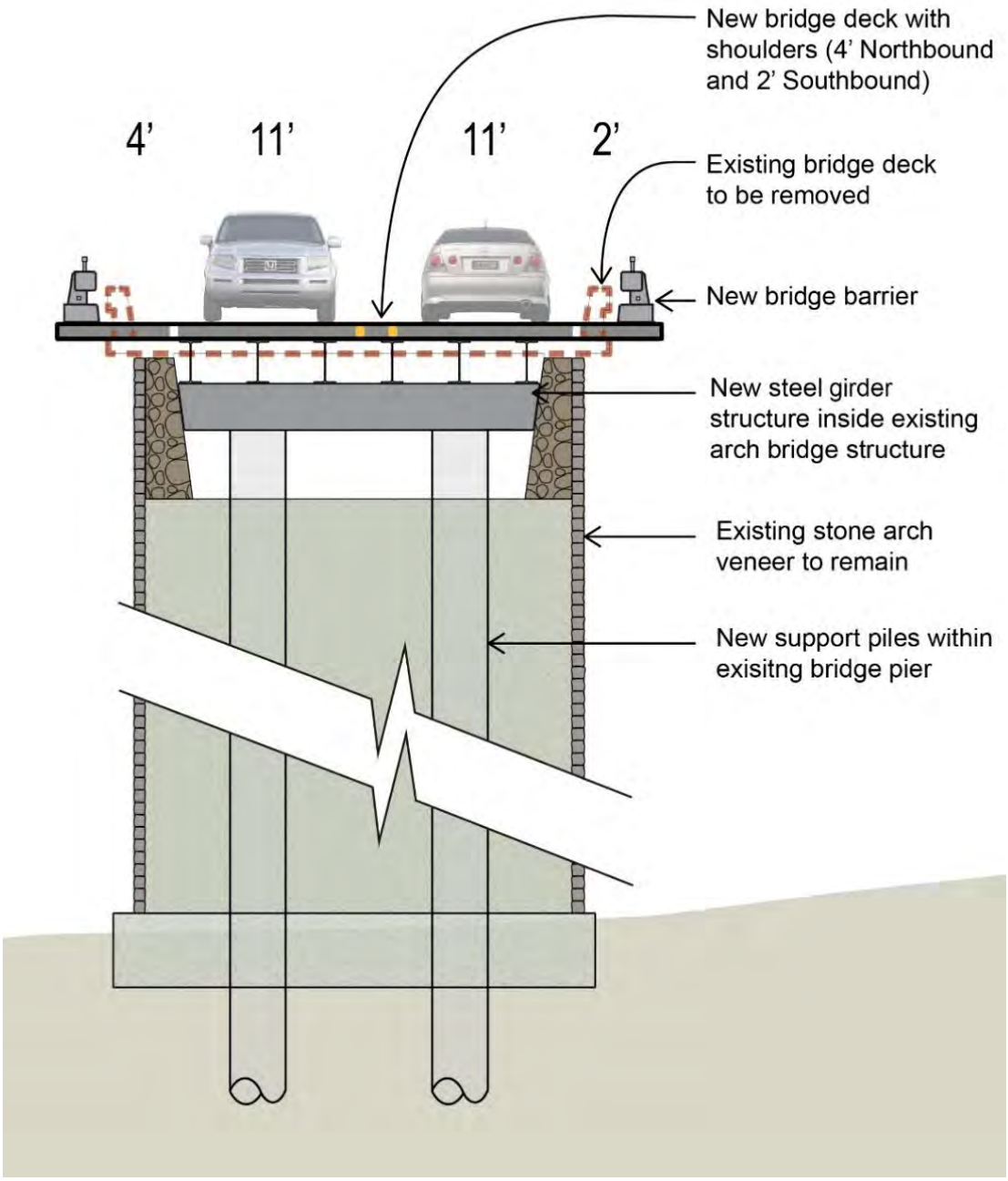


Figure 1-10: Cross Section of "Hybrid" Alternative

ALTERNATIVE 1.2 – MAINTAIN EXISTING ROADWAY ALIGNMENT WITH NEW ABC BRIDGE

The Maintain Existing Roadway Alignment with New ABC Bridge Alternative (ABC Alternative) proposes to remove the existing bridge and construct a new bridge in the same location as the existing bridge. This alternative was designed to avoid potential impacts to water and biological resources by spanning the creek without a central pier. It also reduces the duration of construction as compared to traditional bridge construction methods, thereby reducing potential impacts to the traveling public, water quality resources, and biological resources.

This alternative would likely require two construction seasons to complete. Implementation of the temporary detour roadway traffic management strategy would require approximately 160 days of one-way traffic control. In comparison, implementation of the full road closure traffic management strategy would require approximately 90 days of full closure and 40 days of one-way traffic control.

The current estimated cost of construction is $15 million if the temporary roadway traffic management strategy is used and $13.5 million if the full closure traffic management strategy is used. Figure 1-12, Alternative 1.2: Maintain Existing Roadway Alignment with New Accelerated Bridge shows the plan view for this alternative.

The new bridge would be constructed in multiple stages. In the first stage, the preferred traffic management strategy will be established and the vegetation cleared around the work area of the bridge. Then the temporary stream crossing/creek diversion will be put in place. The existing bridge structure would then be completely removed.

Stage two would begin once the bridge removal is completed. This stage would begin with the construction of the bridge abutments. Temporary center supports will be constructed concurrently to assist with the erection and splicing of the precast box girders in the next step. Pre-cast, pre-stressed girders would be brought to the work site and placed on the abutments and temporary supports, then spliced together to form one continuous span from abutment to abutment. The temporary supports would be removed. With the girders in place, a concrete bridge deck would be placed over the girders to provide a roadway surface. Approach slabs and new roadway structural

sections would then be constructed to connect the new bridge with the existing alignment of SR-9. Retaining walls will be constructed below the approach slabs to support the new roadway that connects with the widener portions of the new bridge.

The new bridge would be ready to carry vehicular traffic at the start of stage three. Temporary railing would be placed on the bridge so that SR-9 would be reopened to traffic under one-way traffic control. Concrete barriers and any aesthetic treatments to the face of the bridge would be built under one-way traffic control. SR-9 would re-opened to two-way traffic once this work is completed and the temporary creek crossing/creek diversion is removed.

ALTERNATIVE 4 – NO-BUILD ALTERNATIVE

Under the No-Build Alternative, no action would be taken to address the seismic or structural vulnerabilities of the existing Saratoga Creek Bridge, leaving SR-9 susceptible to loss of connectivity during a major seismic event. The No-Build Alternative also does not meet the purpose and need of the project.

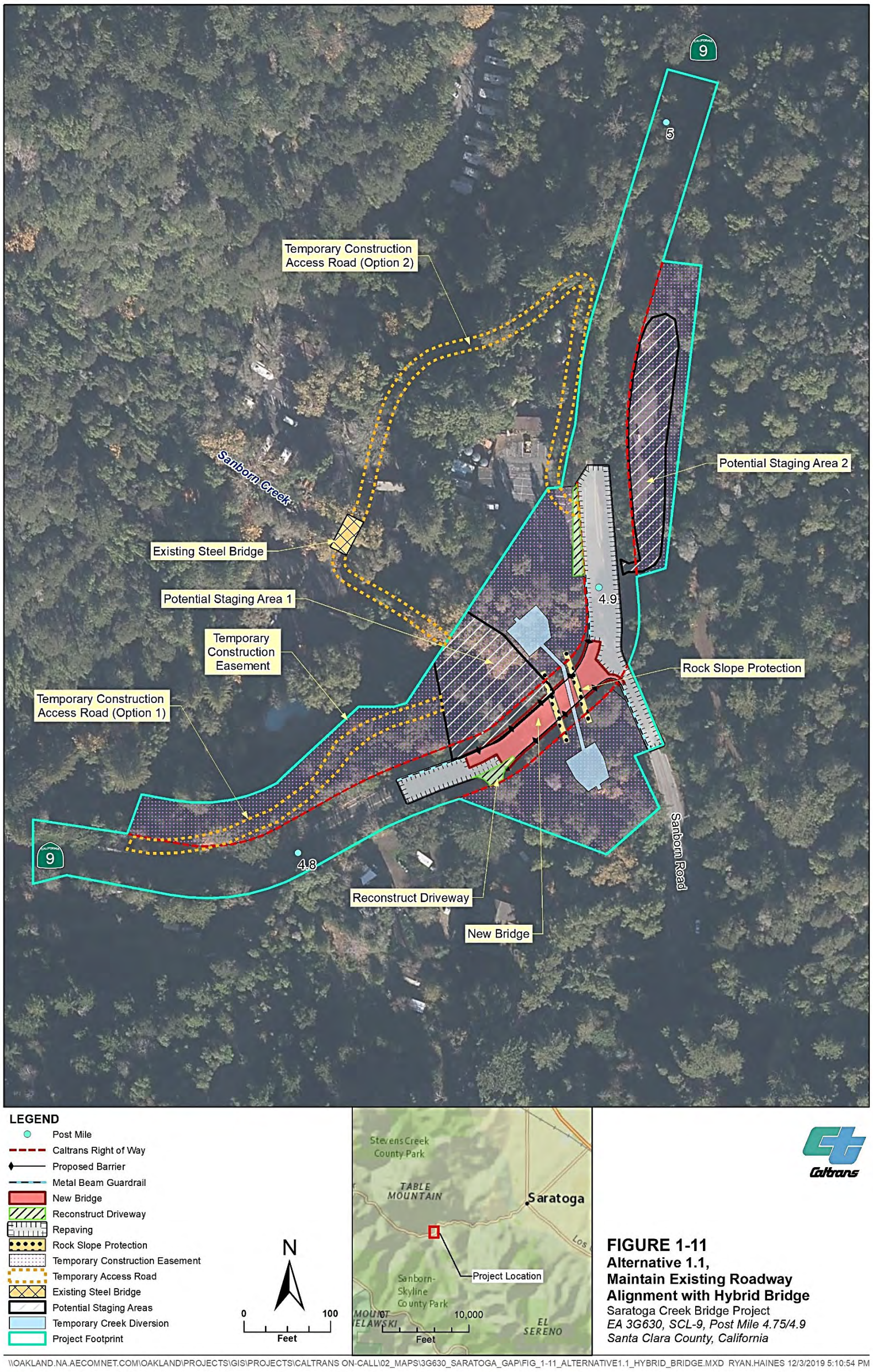


Figure 1-11: Alternative 1.1 Proposed Layout: Maintain Existing Roadway Alignment with "Hybrid" Bridge ("Hybrid" Alternative)

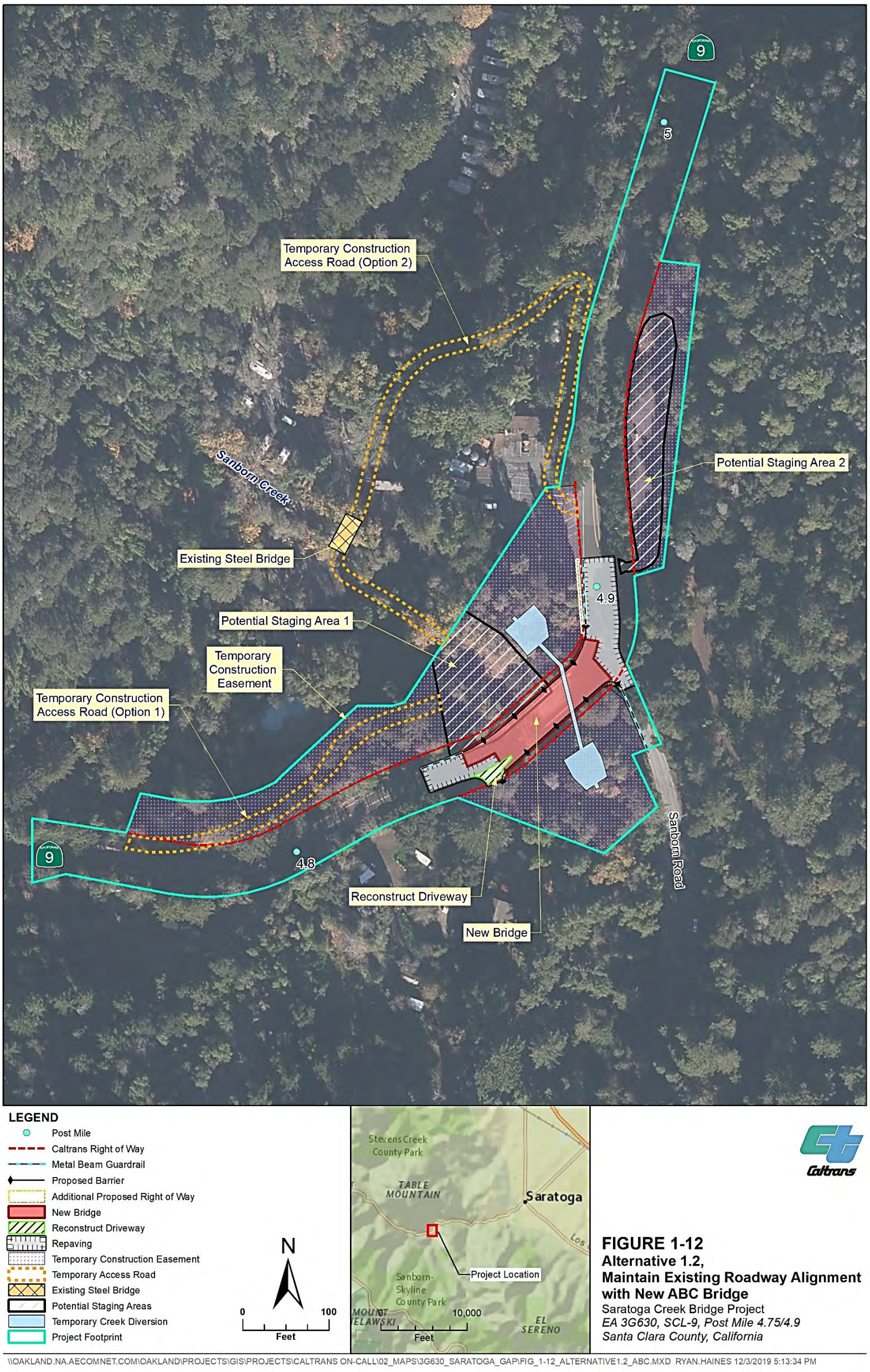


Figure 1-12: Alternative 1.2 Proposed Layout: Maintain Existing Roadway Alignment with New Accelerated Bridge (ABC Alternative)

1.6 Comparison of Alternatives

The alternatives for the proposed project were evaluated based on their potential to impact both the natural environment and local communities and landowners. During the pre-scoping phase of the project development process, the project development team foresaw certain environmental and community impacts as being of particular concern. These concerns include: impacts to the riparian area around Sanborn Creek; the potential for protected species in this heavily wooded area of the Santa Cruz Mountains; water quality of Sanborn Creek; the historical standing of the existing bridge; the visual character of the project area because it is a notable bridge that is part of a scenic highway; and impacts to the local property and business owners adjacent to the proposed project site.

The project development team worked with the natural resource agencies, local governing agencies, and local property and business owners during the scoping phase of the project to determine the stakeholders' areas of greatest concern. The project development team used this feedback, and information on the identified resources of concern, to develop a set of criteria to use for evaluating the project alternatives. The main area of concern from local governing agencies, landowners, and business owners was the impact to traffic flow to, and through, the project area during construction because of the narrowness of SR-9 and the lack of easily accessible alternate routes. Second to this concern was the impact to the aesthetics of the existing bridge because it has notable stonework and arches. The resource agencies were largely concerned with the impacts to Sanborn Creek, and subsequently the adjacent riparian areas around the creek. Sanborn Creek feeds into Saratoga Creek less than a mile downstream of the project site. Saratoga Creek eventually flows through the City of San Jose and empties directly into San Francisco Bay. The riparian areas around Saratoga Creek and its tributaries are key parts of the ecosystem health of the overall Saratoga Creek watershed and provide habitat for special status species.

Table S-1 Project Potential Impacts summarizes the permanent adverse effects of the build alternatives in comparison to the No Build Alternative for the above-mentioned concerns, in addition to a few other resources that are of particular interest to the state. The proposed avoidance, minimization, and/or mitigation measures (AMMs) to reduce the effects of the build alternatives are also presented. Please refer to Appendix C: Avoidance,

Minimization, and/or Mitigation Measures, for a complete description of recommended measures.

After the public circulation period, all comments were considered, and Caltrans selected a preferred alternative and made the final determination of the project's effect on the environment. Under CEQA, Caltrans certified that the project complies with CEQA. Caltrans then filed a Notice of Determination with the State Clearinghouse that identified whether the project will have significant impacts, if mitigation measures were included as conditions of project approval, and that findings were made. Similarly, Caltrans, as assigned by FHWA, has determined under NEPA that this action does not significantly impact the environment and has issued a Finding of No Significant Impact (FONSI).

1.6.1 Identification of the Preferred Alternative

Alternative 1.1 Maintain Existing Roadway Alignment with "Hybrid" Bridge was chosen as the preferred alternative for this project. The "Hybrid" Alternative meets the project's purpose and need through constructing a new bridge that meets current seismic standards to maintain continuous connectivity along SR-9, even after a seismic event. See Figure 1-13 below for a visual simulation of what the "Hybrid" Alternative might look like.

The project development team applied the selection criteria that was developed during the scoping phase and refined after the public comment period based on the feedback from the draft environmental document. The team prioritized reducing impacts to traffic, construction duration, and historic resources while also considering impacts to biological resources, visual resources, and project costs.

The "Hybrid" Alternative was found to be more effective at reducing more of the impacts in the selection criteria than the ABC Alternative. There is only one year of construction required to complete the "Hybrid" Alternative and the duration of traffic impacts is less than that of the ABC Alternative. The "Hybrid" Alternative also retains the outer, visible, portion of the original stone bridge. While this alternative does not retain the historical standing of the original bridge, it does allow the outer stone masonry walls to remain fully visible (see Ch. 2, Section 2.1.5 Cultural Resources for further discussion).

Figure 1-13: Visual Simulation of "Hybrid" Alternative as Viewed from North of the Bridge

1.6.2 Alternatives Considered but Eliminated from Further Discussion Prior to Final Environmental Impact Report/Environmental Assessment (EIR/EA)

PRIOR TO DRAFT EIR/EA

Six previously considered alternatives have not been carried forward in the scope of the project. Table 1-2, Build Alternatives for the Saratoga Creek Bridge Eliminated Prior to the Draft EIR/EA, documents the six build alternatives that were eliminated from further consideration, including a brief description of the alternative and the reason it was eliminated from further consideration. The first three alternatives (A, B, and C) were considered during the initial phases of project development, but were not carried forward after the project scoping period. The first of these alternatives, Alternative A, was an option to fully realign SR-9 to the north of the current alignment and build a new bridge adjacent to the original Saratoga Creek Bridge. The second alternative, Alternative B, was an option to realign SR-9 fully to the south of the current alignment and build a new bridge adjacent to the original Saratoga Creek Bridge. These two alternatives would have left the original bridge structure in place as-is. The third alternative, Alternative C, was to keep the exact existing roadway alignment and remove and replace the existing bridge. This third alternative has been further

developed into the current Build Alternatives 1.1 and 1.2, which use the existing roadway alignment.

Table 1-1: Build Alternatives Eliminated Prior to the Draft EIR/EA

Alternative	Description of Alternative	Reason Alternative Was Rejected
A	Realign roadway to the north of current alignment and retain original Saratoga Creek Bridge.	Eliminated because roadway closures would occur for up to 7 construction seasons; the detour proposed would amount to an additional 1 hour and 15 minutes of travel time. Also, would locate the new bridge through the primary reservation picnic area that provides revenue for the private events venue. Venue would lose income from renting out this picnicking area both during constructing and, likely, following construction due to the loss of a primary area of use.
B	Realign roadway to the south of the current alignment and retain original Saratoga Creek Bridge.	Eliminated because roadway closures would occur for up to 7 construction seasons; the detour proposed would amount to an additional 1 hour and 15 minutes of travel time; and would locate the bridge through a densely vegetated and steep hillside, causing increased biological impacts and constructability challenges that would result in the need for a large retaining wall east of the current bridge location. It would also require property from the private property on the southwestern corner of the bridge and would move the bridge closer to the nearby residential home located on that property.
C	Retain existing alignment and construct a new bridge.	This alternative was further developed into Alternatives 2 and 3, which mostly use the existing roadway alignment.
D	Wire saw and bond existing Saratoga Creek Bridge.	Determined infeasible due to the high risk of collapse to the masonry spandrel walls during construction, the possible instability of the shoring, and seismic instability of the façade after construction.

Table 1-1: Build Alternatives Eliminated Prior to the Draft EIR/EA

Alternative	Description of Alternative	Reason Alternative Was Rejected
E	Map, disassemble, and reassemble façade of existing Saratoga Creek Bridge.	Determined infeasible because of the high risk of internal collapse of the infill when removing the spandrel walls and risk of damaging stones during deconstruction.
F	Form, replicate, and replace existing Saratoga Creek Bridge.	Eliminated because this alternative would not rehabilitate the bridge in a manner consistent with the Secretary of the Interior Standards for the Rehabilitation of Historic Buildings.

One important factor in the project development team's decision to eliminate these alternatives was a feasible bridge retrofit alternative developed after the scoping phase. Both of the current project Build Alternatives retain SR-9 on, or very near, its existing alignment. The alternatives that were not carried forward would have incurred much greater impacts to visual, biological, and water resources, in addition to greater impacts on local property owners, businesses, public recreational facilities, and the traveling public. These greater impacts are in comparison to the potential impacts from the current project alternatives that retain the original roadway alignment and allow continuous access along SR-9 during construction.

Caltrans explored the possibility of Alternatives A and B to consider whether the original Saratoga Creek Bridge could be left in place as a historic structure, due to its eligibility for the National Register of Historic Places. However, these alternatives were determined to be infeasible because Caltrans would have to transfer ownership of the bridge to another public agency once it was taken out of use for the State Highway System. Unfortunately, Caltrans was not able to transfer ownership of the bridge without addressing the seismic deficiencies, which would require retrofitting the bridge. Even if the bridge was converted to pedestrian or bicycle use only, Caltrans would have to bring the bridge up to current standards. Caltrans has determined that it is not feasible, from an engineering standpoint, to retrofit the existing bridge to meet engineering standards in a way that would not have an adverse effect on the historic features of the bridge; therefore, the alternative was deemed to be infeasible.

The remaining alternatives, D, E, and F, are three rehabilitation alternatives that were considered during the initial phases of project development. These were determined to be infeasible by Caltrans Headquarters bridge engineers. Both Alternatives D and E are infeasible because of the high risk of collapse during construction; Alternative F would not rehabilitate the bridge in a manner consistent with the Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings. Furthermore, the construction time for these alternatives would be up to 7 years because of the careful manner in which they would need to be executed for worker safety and to preserve the bridge elements identified for protection. Further, a temporary bridge would extensively increase the project footprint, thereby increasing the potential impacts to water, biological, and visual resources. Closing SR-9 would require an extensive detour route along SR-35, which is shown in Figure 1-9.

Transportation system management strategies increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can handle without increasing the number of through lanes. No additional alternatives that are specifically for transportation system management or transportation demand management have been considered for this project because there is not enough traffic demand to warrant expanding the capacity of SR-9, and doing so would not meet the purpose and need of the project. The inclusion of a shoulder and bicycle railing on all of the bridge alternatives does help to meet the demand for multiple transportation modes by providing bicycle improvements to this section of SR-9. However, there are no existing pedestrian facilities on SR-9, so the addition of these facilities in the bridge project design would not be appropriate.

POST DRAFT EIR/EA

The draft EIR/EA originally included three build alternatives that the project development team proposed for consideration. These three alternatives were:

1. Alternative 1: Retrofit the Existing Bridge Along Current Alignment (Retrofit Alternative)
2. Alternative 2: Replace Bridge South of Existing Alignment (Realign Roadway South Alternative)
3. Alternative 3: Replace Bridge North of Existing Alignment (Realign Roadway North Alternative)

The Retrofit Alternative proposed to widen and retrofit the existing bridge by encasing and strengthening the structure with an exterior reinforced-concrete shell and high-strengthen steel tie rods. This alternative would have taken about three years to complete. This proposed alternative was eliminated due to the long duration of construction and because the public comments received during the comment period of the DED showed that the public placed a high value on the retention of the original façade of the existing bridge. This alternative would have completely covered the original façade with a reinforced-concrete shell that would have had a context sensitive visual treatment applied after construction.

The Realign Roadway South Alternative proposed to remove the existing bridge and construct a new bridge with an alignment shifted a few feet to the south of the existing bridge. This alternative would have taken about three to four years to complete. This proposed alternative was eliminated due to the long duration of construction and because of the large retaining walls required on Sanborn Rd. that would have had significant visual impacts.

The Realign Roadway North Alternative proposed to remove the existing bridge and construct a new bridge with an alignment shifted a few feet to the north of the existing bridge. This alternative would have taken three to four years to complete. This proposed alternative was the basis for the two new alternatives, the “Hybrid” Alternative and the ABC Alternative, which have been included in the final environmental document. The project development team refined the construction methods for this proposal in order to reduce the duration of construction and minimize impacts to traffic flow on SR-9 since this was a major concern for project stakeholders. This resulted in alternatives that use the existing alignment of SR-9 and only require one to two years for construction. The “Hybrid” Alternative is able to retain the original stone masonry façade in addition to this, which helps to address another stakeholder request to retain the original bridge.

1.7 Required Permits and Approvals

Table 1-2 lists the permits, licenses, agreements, and certifications (PLACs) required for project construction:

Table 1-2: Required Permits and Approvals

Agency	Permit/Approval	Status
United States Fish and Wildlife Service (USFWS)	Endangered Species Act, Section 7, Biological Opinion (BO)	Non-jeopardy Biological Opinion issued on May 04, 2018.
United States Army Corps of Engineers	Clean Water Act, Section 404	Following environmental document certification, permit application will be submitted.
California Department of Fish and Wildlife (CDFW)	California Fish and Game Code 1602 Lake and Streambed Alteration Agreement	Following environmental document certification, applications for 1602 permit and Section 2080.1 agreement will be submitted.
San Francisco Regional Water Quality Control Board	Section 401 Water Quality Certification for Water Discharge Permit	Application for Section 401 permit will be submitted following environmental document certification.
State Historic Preservation Officer	Findings of Effect and Memorandum of Agreement (MOA) per Section 106 of the National Historic Preservation Act of 1966	MOA completed June 20, 2019.
California Transportation Commission (CTC)	CTC vote to approve funds	Following environmental document certification, the CTC will vote to approve funding for the project.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This section discusses the resources and communities that were assessed for potential impacts from the proposed project alternatives. Under NEPA, the no-build alternative is used as the baseline for comparing environmental impacts in this chapter. Each section in this chapter will cover one of the following areas of potential impact: the regulatory setting governing that subject; the environmental consequences of the proposed alternatives; and the proposed avoidance, minimization, and mitigation (AMM) measures for potential impacts. A summary of the AMM measures can be found in Appendix C: Avoidance, Minimization and/or Mitigation Summary.

As part of the scoping and environmental analysis for the project, the following environmental issues were considered, but no adverse impacts were identified. As a result, there is no further discussion of these issues in this document.

Existing and Future Land Use

The project is located in a rural section of the Santa Cruz Mountains in Santa Clara County. The replacement of the bridge with a similar structure would not affect the types of land use existing or prevent future types of uses.

Consistency with State, Regional, and Local Plans and Programs

The project is consistent with the following state, regional, and local plans and programs:

1. California State Transportation Plan – State of California
2. Valley Transportation Plan 2040 – Santa Clara County
3. Santa Clara Countywide Bicycle Plan 2008 – Santa Clara County
4. Santa Clara County General Plan 2010 – Santa Clara County
5. Santa Clara County Zoning Ordinance – Santa Clara County
6. Strategic Plan for the Santa Clara County Parks and Recreation System 2003 – Santa Clara County
7. Santa Clara County Countywide Trails Mater Plan Update (Countywide Trails Plan) 1995 – Santa Clara County

The project will not change the designation of the adjacent properties and the proposed use is consistent with the current Santa Clara County Transportation zoning of SR-9. Caltrans has included bicycle facilities in all of the proposed designs for the alternatives, which is consistent with the Santa Clara Countywide Bicycle Plan. The design of the new bridge will take into consideration the Congress Springs Connector Trail that is part of the Strategic Plan for the Santa Clara County Parks and Recreation System. The project is consistent with the land use plans for this section of SR-9.

CALIFORNIA COASTAL ZONE

There will be no effects to coastal resources because the project is not located within the coastal zone.

CALIFORNIA WILD AND SCENIC RIVERS

There are no state designated Wild and Scenic Rivers located in the project area.

PARKS AND RECREATIONAL FACILITIES

This project will not impact facilities protected by the Park Preservation Act (California Public Resources Code Sections 5400-5409) and neither of the project alternatives use park land designated as a Section 4(f) resource. The only Section 4(f) use on the project would relate to the existing bridge itself because it is a Historic Site under Section 4(f) and not because of the use of any park or recreation facility. See Appendix A Section 4(f) for this evaluation.

FARMLANDS/TIMBERLANDS

There would be no effects to farmlands or timberlands because there are none adjacent to the project area. This includes properties protected under California's Williamson Act.

GROWTH

The proposed project would be an in-kind replacement with the same number of lanes, and is therefore not capacity increasing. It would not change the existing level of service for SR-9. This means that there would be no potential for causing an increase in the population growth of the area as a result of this project.

Community Character and Cohesion

The rural nature of the area surrounding the project location means that the land parcels are very large, the population density is very low, and the surrounding land uses are not designated for residential use. There are no communities adjacent to or in the project area, and the project only proposes to retrofit or replace the existing bridge in-kind. The bridge does not occur as a focal point for any of the communities in the surrounding region. Under these conditions, there is no potential for impacting the character or cohesion of an existing community.

Environmental Justice

An analysis of the local racial and economic profile of this region of Santa Clara County was completed based on the 2010 U.S. Census data. No minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above. Therefore, this project is not subject to the provisions of EO 12898.

Hydrology and Floodplain

There is not a significant floodplain encroachment according to the Location Hydraulics Study (Caltrans 2017) and the Floodplain Evaluation Report Summary (Caltrans 2017). The project location is beyond the limit of the study area for the National Flood Insurance Program. The 100 year floodplain is contained within the Sanborn Creek channel according to the Caltrans Structure Hydraulics & Hydrology's Office of Design and Technical Services' Revised Preliminary Hydraulic Report (Doria 2015). There would be no effects to floodplains.

Hazardous Waste/Materials

Caltrans performed an initial site assessment to identify any potential sources of hazardous materials, waste, and substances in, and adjacent to, the project area. There were no potential sources of hazardous waste and/or materials found during this assessment. None of the proposed project alternatives are predicted to generate hazardous materials.

Air Quality

The project would not increase the capacity of SR-9 or move the alignment closer to sensitive receptors. The air quality pollutant emissions as a result of the project's construction activities are temporary and would not change

existing levels. There are no anticipated air quality impacts that would result from the proposed project.

NOISE

Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (California Deparment of Transportation Division of Environmental Analysis 2011) was used to assess the project's potential to increase the ambient noise level in the area surrounding the project. This analysis showed that the noise levels that would result from the project's construction activities are temporary and would not change existing levels. There are no anticipated permanent noise impacts that would result from any of the proposed project alternatives. Please refer to the Construction Impacts section in Chapter 2.5 for more detailed construction noise analysis.

ENERGY

When balancing energy used during construction and operation against energy saved by relieving congestion and other transportation efficiencies, the project would not have substantial energy impacts.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION: NATIONAL MARINE FISHERIES SERVICE (NMFS)

There are multiple fish passage barriers that occur on Saratoga Creek between the project location and San Francisco Bay. These barriers prevent anadromous fish (such as salmon) from traveling upstream to the project location. Additionally, there is no critical habitat present in the project area. Under these conditions, this project will have no effect on species under NMFS jurisdiction.

2.1 Human Environment

2.1.1 Community Impacts

REGULATORY SETTING

Relocations and Real Property Acquisition

Caltrans' Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 CFR Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will

not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please visit www.dot.ca.gov/hq/row/rap/ for more information on this subject.

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

AFFECTED ENVIRONMENT

Caltrans reviewed the property maps of the proposed project area to determine if there was a potential to impact properties outside of Caltrans right of way. Currently, there is one private residence and a private event venue adjacent to the project area. The project is also close to Sanborn County Park, which is administered by the Santa Clara County Parks Department.

ENVIRONMENTAL CONSEQUENCES

Caltrans determined that there are currently no relocation concerns for any private residences. Caltrans will be working with property owners to assess the potential for impacts to their properties and negotiating agreements throughout the next stages of the project. Any agreements between Caltrans and private property owners will be finalized before the start of construction. The proposed project footprints of the current build alternatives have all been designed to take up the minimum area feasible to construct the project. This has been done in order to minimize the amount of additional right of way the project would need for the construction of each alternative.

Both project build alternatives would require the same temporary construction easements (TCEs). The TCEs are for the temporary use of property for project construction work, equipment staging/storage, and/or construction material storage.

A 27,400 square-foot TCE on APN 51704051 would be used for construction work for the bridge and construction of the creek detour. A 73,300 square-foot TCE on APN 51704041 would be used for the construction of the Temporary Access Road (Option 1), construction work occurring at the base of the bridge, and construction staging and storage of equipment and materials. A 8,000 square-foot TCE on APN 51704042 would be used for construction of the bridge deck and roadway work on SR-9.

A 7,100 square-foot sliver property acquisition on APN 51704041 would be used for a slight realignment of SR-9 to adjust for the widening of the bridge. A 100 square-foot sliver property acquisition on APN 51704051 would be required under the “Hybrid” Alternative for the placement of RSP to protect the existing pier from further scour damage.

Locations for the TCEs and property acquisition can be seen in Figure 2.1-1 Right of Way Proposals.

No Build Alternative

There are no anticipated immediate impacts from the No Build Alternative. However, if there is a seismic event and the bridge fails, an emergency project to replace the bridge would be done. In this case, a new bridge would be built to replace the existing bridge as quickly as possible in order to resume connectivity along SR-9. The anticipated impacts to adjacent properties in this circumstance would likely be similar to those of the ABC Alternative.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The proposed project features minimize the project footprint to the maximum extent possible and Caltrans would work with property owners throughout the design process to address the concerns from potential impacts to properties outside of the Caltrans right of way.

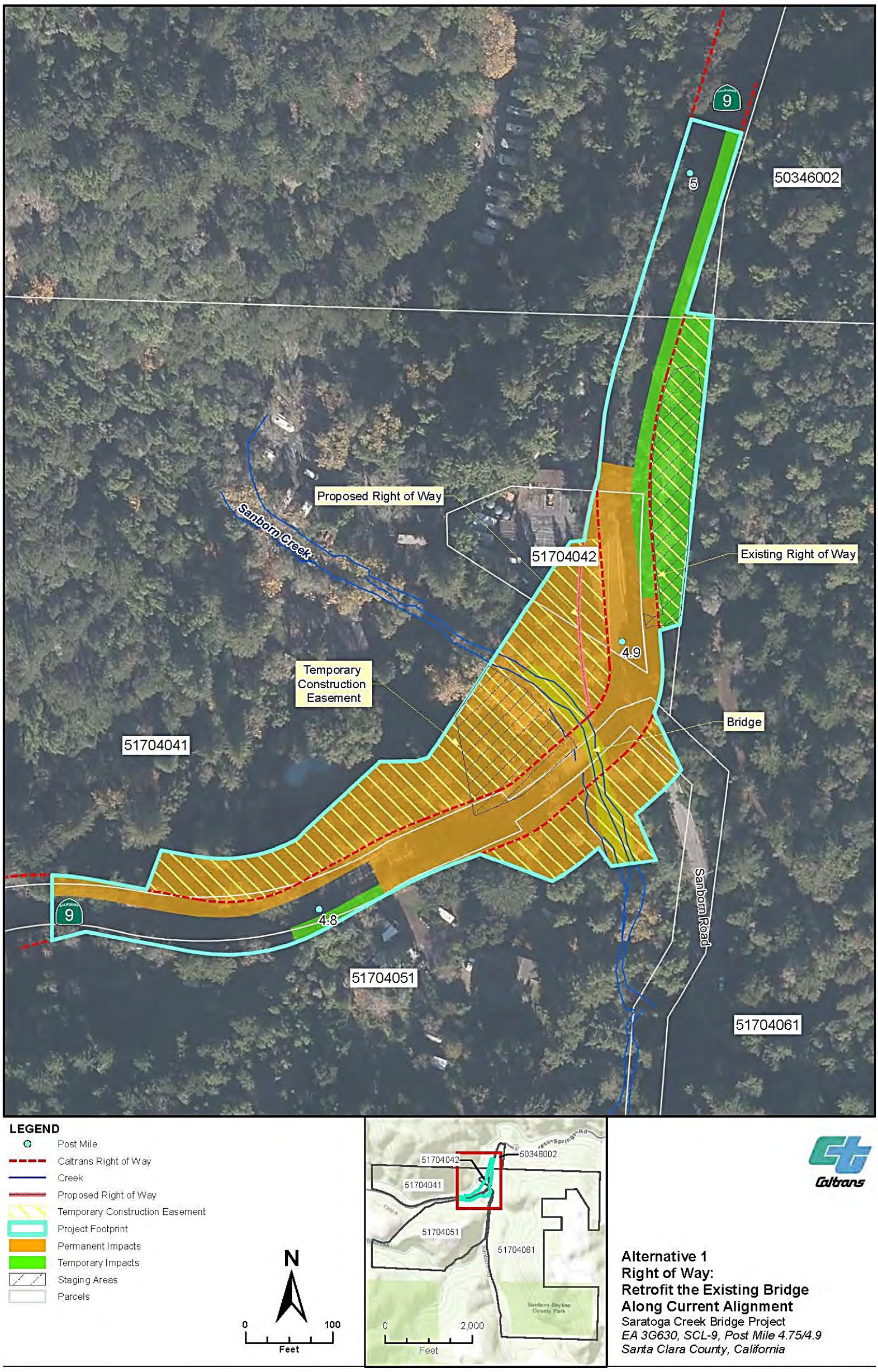


Figure 2.1-1: Right of Way Proposals

2.1.2 Utilities/Emergency Services

AFFECTED ENVIRONMENT

A visual survey was done for utilities present in the project footprint. Approximately 9 to 10 poles were observed with aboveground telephone/electrical lines that run through the project area. A formal request will be sent to the utility companies during the next phase of the project to determine the extent of utilities that may be present in the project area. No underground utilities are expected to be present.

Emergency services for medical, fire, and law enforcement are based out of the City of Saratoga for the stretch of SR-9 between the City of Saratoga and the community of Fenton.

ENVIRONMENTAL CONSEQUENCES

The telephone and electrical lines that run adjacent to the bridge would have to be temporarily relocated to create a safe operating environment for construction activities and to avoid accidental disruption of utility services, especially with the use of cranes and other tall pieces of equipment. There are also some utility poles that are located in areas directly adjacent to the bridge, which would be in the way of work on the bridge. These conflicts are the same with both build alternatives.

Temporarily relocating the utility poles would be undertaken by the utility companies before the start of construction, in coordination with Caltrans on appropriate start dates. It is a standard project feature to have utility poles temporarily moved to a nearby location and then moved back as close as possible to the original location soon after construction is completed. Disruption to the telephone and electrical utilities during the move would be minimized as much as possible. There is a potential for effects on biological resources due to the temporary relocation of the utility poles and the vegetation trimming necessary to ensure clear space for the new lines. This is discussed in Section 2.3, Biological Environment.

There are no permanent changes to emergency service access that would result from either of the project alternatives. The current alignment and capacity of SR-9 will not change for either alternative.

There is a potential for the two traffic management options discussed in Section 1.5.1, Common Design Features of All Build Alternatives, to have potential temporary impacts to emergency services. These potential impacts are discussed below and strategies to address these impacts would be included in the Traffic Management Plan developed for the project during the next phase of design. It is Caltrans' standard procedure to develop a Traffic Management Plan for all projects.

If the temporary detour roadway is selected as the project's traffic management strategy, then SR-9 would be open to one-way traffic throughout construction. This would allow continual access for emergency services located in the City of Saratoga. It is expected that emergency vehicles would be able to bypass stopped traffic via the temporary detour bridge. Caltrans would coordinate with local emergency services to ensure that emergency vehicle access along SR-9 remains accessible at all times. In the event of an emergency, construction personnel would be alerted to close both directions of traffic across the temporary bridge to allow emergency vehicles to pass. Under these conditions there would be no expected delays for emergency services.

If the full closure traffic management option is used, then SR-9 would be closed for about 1 month. Caltrans would coordinate with emergency services to provide access for the service area west of the project location during this time in order to ensure that there would be no impacts to services.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The proposed project features address the concerns from potential impacts to utilities and emergency services. There are no AMMs proposed.

2.1.3 Traffic, Transportation, Pedestrian, and Bicycle Facilities

REGULATORY SETTING

Caltrans, as assigned by FHWA, directives maintain that safe accommodation of pedestrians and bicyclists should be given full consideration during the development of Federal-aid highway projects (see 23 CFR 652). It further directs that the special needs of the elderly and the disabled must be considered in all Federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential

conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 USC 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

AFFECTED ENVIRONMENT

A traffic impact analysis was conducted for this project by the Caltrans Office of Highway Operations in December of 2016. This analysis compared the baseline traffic during peak times of the day/week with the impact the proposed traffic control strategy may have on travel times.

SR-9 is a mostly rural, two-lane state highway in southwestern Santa Clara County that runs from the Santa Clara/Santa Cruz County line to the Town of Los Gatos. The project area is on a section of the route that serves local commuters, recreational drivers, and recreational bicyclists. There are no pedestrian facilities or public transportation facilities along this stretch of the route. There are also few shoulders and bicyclists share the roadway with motor vehicles. The existing bridge has no shoulders.

SR-9 has a capacity of 1,600 vehicles per hour in both directions. The current use is not expected to reach this capacity in the long-range forecasting for this route. The route is not considered congested and vehicles are able to travel at the posted speed limit most of the time. The current average travel time from the project area to SR-35 is about 9 minutes. The travel time from the project area to Saratoga-Sunnyvale Road is about 7 minutes.

During the weekday, the traffic volumes peak at 300 vehicles in the northbound direction during the morning, from 7:00 to 8:00 a.m. In the afternoon, there is a smaller peak again, of approximately 270 vehicles from 5:00 to 6:00 p.m. in the southbound direction. During the weekends, there is a higher overall volume of traffic, but this is spread out throughout the day. The

combined (northbound and southbound) peak-hour volume would occur on Saturday midday, with a volume of 415 vehicles per hour.

ENVIRONMENTAL CONSEQUENCES

None of the project alternatives propose to change the long-term capacity of this stretch of SR-9. All project build alternatives propose widening the bridge as a project feature. The “Hybrid” Alternative would include a 2 foot wide shoulder on the northbound side of the bridge and a 4 foot shoulder on the southbound side. The ABC Alternative would widen the bridge to include 8 foot wide shoulders on both sides of the bridge. In both cases, these shoulders would taper at either end of the bridge to meet the shoulders on the roadway. This would benefit bicyclists using SR-9 by providing a wider shoulder that would give them more space from vehicular traffic on the bridge and by providing a bicycle railing on the new bridge rails. The No Build Alternative would keep conditions as they currently exist.

A traffic management plan (TMP) would be developed for construction of this project as a standard construction measure. The proposed TMP options are outlined in Section 1.5.1 Common Design Features for Build Alternatives. Travel times from the project area to SR-35 would increase from an average of 9 minutes to about 14 minutes under one way traffic control; and from 9 minutes to about 79 minutes under full closure. Travel times from the project area to Saratoga-Sunnyvale Road would increase from an average of 7 minutes to about 12 minutes under one way traffic control; and from 7 minutes to about 75 minutes under full closure.

Local events taking place at nearby public and private venues may cause an increase in traffic which could increase traffic delays. Caltrans would work with local event venues through public outreach to minimize traffic congestion during events.

Caltrans will propose official detours and traffic management strategies for travelers on SR-9. However, there may be other routes that bypass the construction area which would not be included in the Caltrans TMP. These other routes may be affected by detour traffic that does not use Caltrans’ official recommended route.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

There are no additional proposed measures for traffic and transportation issues.

2.1.4 Visual/Aesthetics

REGULATORY SETTING

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 USC 4331[b][2]). To further emphasize this point, FHWA, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of *aesthetic*, natural, scenic and historic environmental qualities" (CA PRC Section 21001[b]).

AFFECTED ENVIRONMENT

The information presented in this section was drawn from the Visual Impact Assessment (VIA) prepared for this project, in accordance with the guidelines in FHWA's *Visual Impact Assessments for Highway Projects* (Office of Environmental Policy 1981). A VIA was prepared by the Caltrans Office of Landscape Architecture on May 26, 2017 (Office of Landscape Architecture 2017) with a supplemental VIA prepared on April 25, 2019 (Office of Landscape Architecture 2019). The purpose of this document was to identify and analyze the potential impacts that the proposed project build alternatives may have on visual resources in the area.

Visual Setting

The Saratoga Creek Bridge Project is located on a segment of the Saratoga-Los Gatos Road (a section of SR-9), which was designated as a California Scenic Highway in 1979 (Caltrans 1979). This state designated scenic corridor begins at the Santa Cruz/Santa Clara County Line, in the midst of the wooded and steep slopes of the Santa Cruz Mountains and passes through

the natural landscape into the suburban areas at the foot of the Santa Cruz Mountains. The scenic corridor ends at the limits of the Town of Los Gatos.

In addition to the scenic designation of the highway, the Saratoga Creek Bridge itself is considered eligible for listing on the National Register of Historic Places. Further discussion of the bridge's historic designation is discussed in Section 2.1.5 Cultural Resources. While the bridge is not visible from SR-9 itself, Figure 2.1-2 shows the view of the stone arched bridge that travelers on Sanborn Road can glimpse through the trunks of the mature trees lining the side of the road.

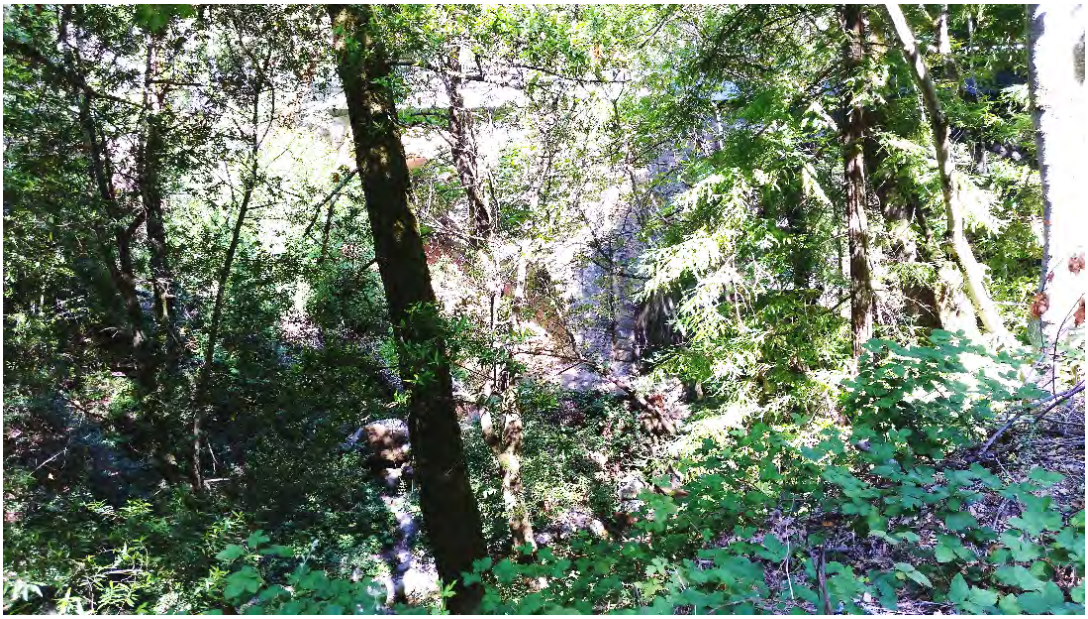


Figure 2.1-2: View of Saratoga Creek Bridge from Sanborn Road.

The region around the project area is characterized by dense, mature forest covering the steep slopes of the Santa Cruz Mountains. The slopes of the mountain range are composed of sedimentary rock. The soil is made up of weathered sandstone and mudstone mixed with organic matter. The forest along the slopes is made up of California bay (*Umbellularia californica*), big-leaf maple (*Acer macrophyllum*), canyon live oak (*Quercus chrysolepis,)* coast live oak (*Quercus agrifolia)*, Douglas-fir (*Pseudotsuga macrocarpa*), and coastal redwood (*Sequoia sempervirens*). Among the trees can be found a midstory of poison oak (*Toxicodendron diversilobum*) and an understory of California maidenhair fern (*Adiantum jordanii*) and goldenback fern (*Pentagramma trangularis*). Further discussion of the geology and plant communities of the area can be found in Section 2.2.2

Geology/Soils/Seismic/Topography and Section 2.3.3 Biological Environment - Plant Species, respectively.

Figure 2.1-3: View of the Project Area Heading East on SR-9.

The dense, mature tree canopy, steep hillsides, and narrowness of SR-9 combine to create a sense of enclosed, natural atmosphere for highway users as they travel through the area along this scenic highway, as can be seen in Figure 2.1-3. The route is popular with recreational drivers and bicyclists who are either traveling to enjoy the view or to reach one of the many parks, wineries, and other recreational destinations in the Santa Cruz Mountains, mostly on the weekends. The area is also home to local residents who use SR-9 for their weekday commute and other trips.

Visual Assessment Units and Key Views

The first step in the visual analysis is to identify the visual assessment unit within which the project is located, in order to provide the area of the visual study with reasonable boundaries. Visual assessment units can be thought of as visually contained or cohesive areas defined by the limits of a viewable area that share the same visual character and quality. Visual character is a neutral description of physical attributes like form, line, and color. Visual quality is a more subjective description of vividness, intactness, and unity.

Together, these features create the unique unit of space within the landscape from which the project's potential impacts can be assessed as a whole. Only one assessment unit was chosen for analyzing the proposed project alternatives. The Saratoga Creek Bridge project area is considered to be within a single visual assessment unit because of the small size of the project area, the cohesiveness of the visual environment along SR-9, and its ability to be viewed from a single viewshed due to the surrounding topography and dense vegetation.

The second step in the process of assessing potential visual impacts is to identify key views that show the potential changes made by the proposed project to visual resources from different vantage points. These key views are publicly accessible areas that capture the existing visual character and quality of the project area are places where people would normally be present. Three key views were chosen for this project. Key View 1 shows the view of the project area from the perspective of a traveler heading west on SR-9 (see Figure 2.1-4). Key View 2 shows the view of the project area from the perspective of a traveler heading east on SR-9 (see Figure 2.1-5). Key View 3 shows the view of the project area from the perspective of a traveler on Sanborn Road approaching SR-9 (see Figure 2.1-6). The key views are summarized below.

Figure 2.1-4: Key View 1, Heading West on SR-9

Key View 1 shows the view looking south toward the Sanborn Road turnoff and the Saratoga Creek Bridge from the westbound approach to the bridge. Highway travelers can clearly see the vegetated uphill slope, the dense tree line on the downhill side, the beginning of the bridge, and the intersection with Sanborn Road.

Figure 2.1-5: Key View 2, Heading East on SR-9

Key View 2 shows the view looking southeast toward the Saratoga Creek Bridge and the hillside beyond from the eastbound approach to the bridge. Highway travelers view the dense riparian canopy growing along the creek that runs below the bridge.

Figure 2.1-6: Key View 3, Approaching the Project Area from the south on Sanborn Road

Key View 3 shows the view looking north toward the bridge from Sanborn Road. As motorists and bicyclists approach SR-9, the arched structure and stone spandrel walls of the historic bridge can be seen through the trees.

Viewers

Viewers are considered people whose view of the landscape may be altered by the proposed project. There are two types of highway viewers: highway neighbors and highway users. This study identified the following highway users: commuters (residents), recreational motorists, recreational bicyclists, and visitors to nearby public and private recreational destinations; and highway neighbors: adjacent residents, commercial picnic ground users and employees, as well as motorists and bicyclists approaching SR-9, while highway neighbors have views to SR-9.

Viewer Response

The viewer response is a measure or prediction of a viewer's reaction to changes in visual resources. It is based on both the predicted sensitivity of a viewer group and the amount of exposure that viewer has to the project site. For instance, a local resident would be anticipated to have a higher sensitivity and more exposure to a project site then a one-time tourist.

Viewers from SR-9 (highway users) are expected to mostly be recreational drivers, bicyclists, and commuters. The volume of travelers on SR-9 can be high on the weekends, as people travel the scenic corridor on their way to recreational areas. The exposure of these viewers to this area is high because of the overall volume of travelers, the distance through the scenic corridor, and the low speed of travel that is necessary to navigate the windy and narrow highway. The steep slopes and dense tree coverage narrow the scenic view of this group to the foreground and the designation of the highway as a state Scenic Highway adds local value to the scenic resources. This results in a high level of sensitivity from this user group to any potential visual resource changes. The views for these viewers are demonstrated in Key Views 1 and 2.

Viewers from Sanborn Road approaching SR-9 are expected to be a mix of regular and first time visitors to Sanborn County Park and recreational bicyclists. The exposure of these viewers to SR-9 and the Saratoga Creek Bridge is moderate due to the short duration of the drive. However, this recreational viewer group would be focused on the scenery and has the opportunity to view the historic bridge. This results in a high level of sensitivity from this user group to any potential visual resource changes. The view for these viewers is demonstrated in Key View 3.

Existing Visual Resources

In addition to identifying the visual setting and the viewer groups, it is necessary to identify what visual resources are present in the project corridor in terms of visual character and quality. This is necessary in order to identify what changes would result from the proposed alternatives. The three elements of visual quality are defined as follows. “Vividness” refers to how memorable/distinctive the visual elements are. “Intactness” refers to visual integrity. In a highly intact landscape everything looks like it belongs. “Unity” is a more broad-range term that describes how well everything visually fits together into a harmonious landscape.

The visual character of the corridor is largely defined by the sense of enclosure created by the narrow roadway and the dense, mature forest lining the highway. The natural environment creates a closed-in atmosphere that invites travelers to slow down and enjoy the winding view of the trees and mountain slopes. There are few views beyond the trees. These views look out

over the heavily wooded, adjacent slopes, which are only occasionally interrupted by built retaining walls, homes, and power lines. The mix of deciduous and evergreen trees changes the visual character seasonally. During the fall and winter, some trees lose their leaves and somewhat open the view from the roadway to show more of the nearby slopes and occasionally Saratoga Creek. For the most part, the landscape is intact through the corridor starting at the limits of the City of Saratoga until the Santa Cruz County line.

The third step in the assessment process is to identify the changes in the visual resources that may be caused by the different project alternatives. This is done by comparing the visual character and quality from before and after the project for each alternative.

The last step of the process is to perform the assessment, which is detailed in the environmental consequences discussion below.

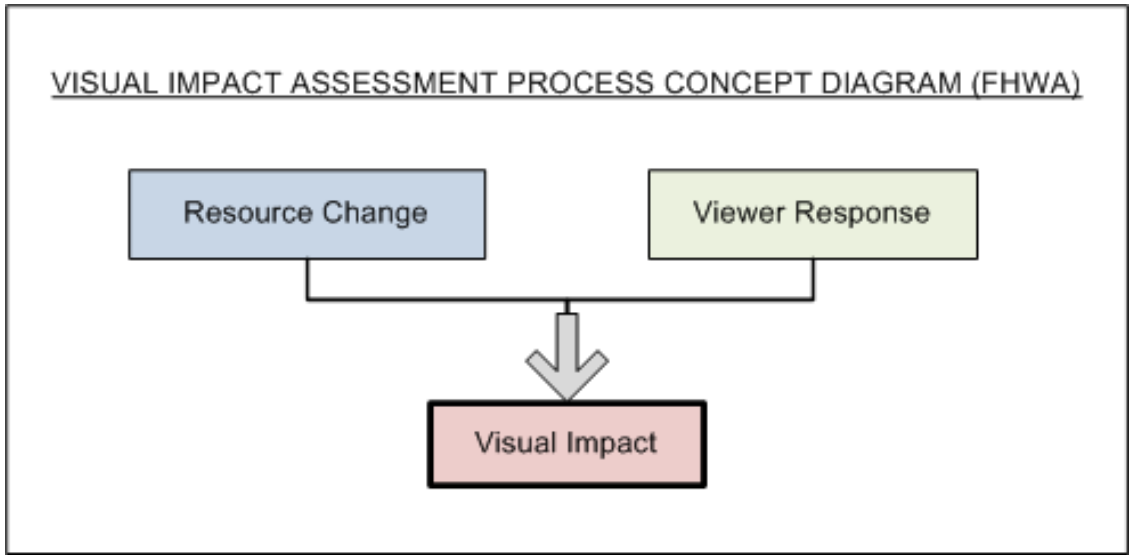


Figure 2.1-7: Visual Impact Assessment Process Diagram

Table 2.1-1: Visual Impact Ratings Using Viewer Response and Resource Change

		Viewer Response (VR)				
		Low (L)	**Moderate-Low (ML)**	**Moderate (M)**	**Moderate-High (MH)**	**High (H)**
Resource Change (RC)	Low (L)	L	ML	ML	M	M
	Moderate-Low (ML)	ML	ML	M	M	MH
	Moderate (M)	ML	M	M	MH	MH
	Moderate-High (MH)	M	M	MH	MH	H
	High (H)	M	MH	MH	H	H

ENVIRONMENTAL CONSEQUENCES

The level of visual impact is determined based on the resource change and the viewer's response to that change. Visual impacts are assessed based on the level of resource change and predicted level of viewer response to change (Caltrans Office of Landscape Architecture 2017). Both the resource change and the viewer response are based on a rating system of low to high. Table 2.1-1 shows how these ratings are combined to predict the level of impact for each project alternative.

The visual impact assessment predicted that viewers would be highly sensitive to changes in the natural character of the area and alterations to the historic Saratoga Creek Bridge. The assessment also predicts that viewers would be sensitive to changes in the enclosed atmosphere of the roadway, which is a function of the narrow road, dense mature tree coverage, and (to a lesser extent) the arched bridge. The degree of anticipated viewer response varies among the key views, as the visibility of the bridge from SR-9 is extremely limited, and there are fewer travelers along Sanborn Road.

Both of the project alternatives would require removal of approximately 344 mature trees adjacent to the roadway within the project limits; widening of the bridge deck; and widening of the bridge approaches. Vegetation removal and

bridge widening would change the enclosed visual character and quality of the project area, although the degree of change would gradually lessen over the years as replacement trees mature.

The removal or covering of the stone spandrel walls of the Saratoga Creek Bridge in the ABC Alternative would change the visual character and quality, as seen from Sanborn Road. This alternative would also widen the bridge deck by 16 feet while the “Hybrid” Alternative would only widen the bridge deck by 4 feet.

Viewers are anticipated to be sensitive to these changes because the scenic quality of the corridor is actively maintained through a corridor protection plan via its designation as a State Scenic Highway. Thus, viewer response is expected to be high to the tree removal and bridge widening because the proposed project would change the intact character and quality of this natural area and diminish the enclosed atmosphere.

Both build alternatives propose changes to the bridge structure itself and would be most noticeable from Key View 3 along Sanborn Road. The removal of trees would make the bridge itself more noticeable. Both project alternatives propose a context sensitive architectural treatment railing to complement the visual environment and maintain its scenic quality.

The ABC Alternative proposes to also use a context sensitive architectural treatment on the body of the new bridge while the “Hybrid” Alternative would only need such treatments on the deck of the new bridge since the original structure would remain intact and visible. These architectural treatments would allow the bridge to retain some unity with the surrounding character of the area and would minimize the visual change.

All visual simulations for the visual analysis assumed that the bridge structure would have a context sensitive architectural treatment that minimizes the visual change of the existing bridge. Key View 3 is the only key view from which the bridge is readily visible.

Visual Impacts by Alternative

The following text summarizes the conclusions from the supplemental visual impact assessment regarding the level of visual impacts from each alternative, based on the viewer’s response at each of the three key views.

Table 2.1-2 summarizes visual impacts for the two build alternatives. Additional details are in the following subsections. The table compares the narrative ratings for visual resource change, viewer response, and visual impacts between key views for the two alternatives.

Table 2.1-2: Visual Impacts Summary

Alternative	Resource Change	Viewer Response	Visual Impact
“Hybrid	L	M	ML
ABC (Simple Span)	M	H	MH

“***Hybrid” Alternative***

The “Hybrid” Alternative proposes to replace the existing 24-foot-wide bridge with a new 28-foot-wide bridge on the same alignment as the existing bridge. An architectural treatment would be applied to the outer surface of the new bridge deck while the existing bridge would remain visible beneath the deck. The treatment to the bridge deck and railings would complement the style of the historic bridge to retain visual unity. See Figure 1-13 in Section 1.6.1 Identification of Preferred Alternative for a simulation of what the “Hybrid” Alternative may look like after construction is completed, as viewed from north of the bridge.

The most notable visual impact for the “Hybrid” alternative at Key Views 1 and 2 would be the vegetation removal required for construction of the bridge. The mature trees surrounding the existing bridge would be conspicuously absent immediately after completion of the project due to tree removal. The trees that would be planted after construction would take decades to return to the mature forest that frames the existing view. The sense of enclosure in existing conditions would be noticeably diminished until that time.

Additionally, the impact of the proposed bridge widening would be perceptible at both Key Views 1 and 2. This would further diminish the sense of enclosure, but the impact would be much less noticeable as the replanted trees mature. However, the amount of proposed widening for this alternative is less than what was originally proposed. This has resulted in a reduced visual impact from what was originally considered in the draft environmental document.

At Key View 3, similar to Key Views 1 and 2, the impact of anticipated vegetation removal would be apparent. Many of the existing mature trees that line Sanborn Road next to the bridge would be removed for construction. As discussed earlier, the trees that would be planted after construction would take decades to return to the mature stature of the trees under the existing conditions. As the trees grow, the sense of enclosure would mostly be reestablished.

The historic bridge structure is somewhat visible in the existing conditions from Key View 3. Catching a clear view of the bridge is challenging through the shadows of the large mature trees lining Sanborn Road (see Figures 2.1-6). The bridge structure would be a more prominent visual feature after project construction, once the mature trees are removed and until the replanted trees reach maturity. The retention of the existing bridge and architectural treatment of the new bridge barrier would reduce the visual change from the earlier Alternative 1, which proposed to strengthen and encase the existing bridge.

Overall, the “Hybrid” Alternative is anticipated to have a moderate level of viewer response and a very low level of resource change, resulting in a moderate-low level of visual impact.

ABC Alternative

The ABC Alternative proposes to replace the existing 24-foot-wide bridge with a new 40-foot-wide bridge on the same alignment as the existing bridge. An architectural treatment would be applied to the outer surface of the new bridge; the treatment would be visually similar to that of the removed historic bridge.

The most notable visual impact for this alternative at Key Views 1 and 2 would be the vegetation removal required for construction of the bridge. The mature trees surrounding the existing bridge would be conspicuously absent once the project is completed due to tree removal. The trees that would be planted after construction would take decades to return to the mature forest that frames the existing view. The sense of enclosure in existing conditions would be noticeably diminished until that time. The widened bridge would be perceptibly out of scale with the narrow winding roadway along the scenic route, further diminishing the sense of enclosure.

The trees planted after construction would take decades to reach the stature of existing conditions, but as they mature, they would go a long way toward recreating the sense of enclosure. The widened bridge would not support the same degree of enclosure as in existing conditions, but it would be much less noticeable with dense vegetation.

The visual change from Key View 3 would be notable for the ABC Alternative due to both the removal of vegetation and the new bridge structure. A small number of viewers would be traveling at low speeds along Sanborn Road; they are expected to be sensitive to changes in their surroundings. Similar to Key Views 1 and 2, the loss of trees would noticeably diminish the sense of enclosure that characterizes the scenic highway, but as the trees are replanted, the sense of enclosure would be reestablished and the new bridge would not be as notable a feature.

The ABC Alternative is anticipated to have a high level of viewer response and a moderate level of resource change, resulting in a moderate-high level of visual impact.

No Build

There are no anticipated immediate impacts from the No Build Alternative. However, if there is a seismic event and the bridge fails, an emergency project to replace the bridge would be done. In this case, a bridge would be built to replace the existing bridge as quickly as possible in order to resume connectivity along SR-9. The development process of the new bridge would be done with minimal design for the sake of expediency and is unlikely to take into account context sensitive solutions.

PROJECT FEATURES

The following project features would be incorporated into the project design using a combination of construction strategies, design modifications, and context-sensitive solutions to avoid and minimize potential project impacts:

- The proposed widening of the bridge in all of the alternatives will be minimized to the greatest extent feasible to reduce the visual impact on the enclosed character of the scenic corridor.

- Metal beam guardrail would be used in place of concrete barrier, wherever feasible, to minimize the visual intrusion of the built structures into the natural setting of the scenic corridor.
- Concrete barriers that are required will incorporate a context-sensitive aesthetic treatment that uses texture and color, to reduce the contrast and enhance compatibility with the visual character and unity of the setting.
- Tree and vegetation removal will be minimized to the greatest extent feasible to reduce the visual impact of removing matures trees from the natural landscape and the enclosed feeling of the scenic corridor.
- The staging and construction areas for the contractor will be clearly marked. The construction activities and storage will not be allowed outside of these areas. This will protect trees and vegetation from unnecessarily being impacted during construction.
- Construction activities will limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed. This will reduce and avoid light impacts on travelers, nearby residences, and nearby recreational facility users.
- Trees will be replanted on-site. All disturbed areas of trees and vegetation will be replaced, sufficient to restore the visual quality and character of the setting over time, to the extent practicable. This will be done in coordination with the replacement planting that is proposed in Section 2.3, Biological Environment, for habitat restoration.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The visual impact assessment proposes the following AMMs:

AMM VISUAL-1: Bridge aesthetic treatment. An aesthetic treatment will be incorporated into the bridge structure, including the bridge barrier and bicycle rail. A context-sensitive texture and color will be used to minimize the change to the visual character caused by replacing or rehabilitating the existing historic structure.

AMM VISUAL-2: Funding for Replacement Planting. Any proposed replacement planting would be funded through the parent project, programmed, and completed within two years of completion of all roadwork.

2.1.5 Cultural Resources

REGULATORY SETTING

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 CFR 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among FHWA, the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 USC 327).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land from historic properties (in Section 4(f) terminology—historic sites). See Appendix A for specific information about Section 4(f).

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California PRC Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU)[8] between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

AFFECTED ENVIRONMENT

To date, the following cultural resource reports have been completed: Historic Property Survey Report (HPSR) (Office of Cultural Resource Studies 2016), Historic Resources Evaluation Report (HRER), and Archaeological Survey Report (ASR). These reports were reassessed with the "Hybrid" and ABC

[8] The MOU is located on Caltrans Standard Environmental Reference webpage at http://www.dot.ca.gov/ser/vol2/5024mou_15.pdf

Alternatives and a Supplemental Finding of Adverse Effect Report was prepared in March 2019.

Existing historic property lists were checked for this project. These historic property lists were from sources such as the NRHP, CRHR, California Historical Landmarks, California Points of Historical Interest, Saratoga Historical Landmarks, City of Saratoga Landmarks list, City of Saratoga Historic Resources Inventory, Office of Historic Preservation list of Santa Clara Historical Resources, and Caltrans Statewide Historic Bridge Inventory. The Saratoga Creek Bridge is the only previously evaluated historic resource found within the project area. It was determined eligible for the NRHP in the 1985 Caltrans Statewide Historic Bridge Inventory.

Research for this project was conducted at the Caltrans Library and History Center, Caltrans cultural resources files in Oakland, California, and through online newspapers. Additional background research was completed using historical and current United States Geological Survey (USGS) topographic maps, aerial photographs, and other documents to confirm dates of construction. Further, research was also conducted in the archives of the Saratoga Historical Society and Museum on October 16, 2015, and October 30, 2015.

Area of Potential Effects

The Area of Potential Effects (APE) for the project includes the current right of way along SR-9, from Post Mile (PM) 4.6 to PM 5.1. The APE also includes 300 feet of Sanborn Road, as well as approximately 300 feet to the east of SR-9, approximately 450 feet to the south, and approximately 1,000 feet to the west and north, and portions of 5 parcels adjacent to the Saratoga Creek Bridge APE. The APE was established by Caltrans Professionally Qualified Staff (PQS) and Caltrans Project Manager on September 15, 2016. A revised APE was signed on March 26, 2018. The revised APE for the project includes the current right of way along SR-9, from PM 4.6 to PM 5.1. The Revised APE for the project includes the current ROW along SR-9, from post mile 4.6 to post mile 5.1. The APE also includes 300 feet of Sanborn Road, as well as flaring from the ROW line at PM 5.1 to approximately 300 feet to the east of SR-9 near the bridge, approximately 450 feet to the south, and approximately 1,000 feet to the west and north and portions of five parcels adjacent to the Saratoga Creek Bridge (see Attachment A). The Archaeological APE is

smaller than the Architectural APE and is reflective of proposed areas of direct impact.

Cultural Resources Coordination Efforts

Request for information letters were sent to the Historic Bridge Foundation, Saratoga Historical Society, History San José, Santa Clara Historical Heritage Commission, Santa Clara County Historical & Genealogical Society, the adjacent private event venue, and the owners of the private residence adjacent to the existing bridge. Letters were sent on August 12, 2015, and again on August 8, 2016, with follow-up emails on August 15, 2016.

Caltrans contacted the Native American Heritage Commission (NAHC) on August 25, 2015, requesting that they conduct a search of their Sacred Lands file to determine if there are known historically significant sites within or near the APE for the proposed project. The NAHC responded on September 4, 2015. No Native American cultural resources were reported from the Sacred Lands file records search. The interested Native American groups and individuals on the NAHC list were contacted and invited to participate in our efforts to identify archaeological and Native American resources. Individuals and organizations listed under Senate Bill 18 were sent letters requesting input on August 25, 2015, in accordance with Caltrans policy regarding PRC 21080.3.1 and Chapter 532 Statutes of 2014 (AB52). Follow-up phone calls were placed the week of October 5 through 8, 2015, to all individuals listed in the NAHC response. Additional letters to inform Caltrans' Finding of Effect were sent to all interested Native American groups and individuals on April 24, 2018.

Caltrans PQS Principal Architectural Historian, Helen Blackmore, along with Caltrans PQS Co-Principal Investigator Historical Archaeologist, Kristina Montgomery, conducted a site visit on June 18, 2015, with members of the project development team. They conducted site visits again on August 28, 2015; February 25, 2016; June 7, 2016; and August 3, 2016, to complete cultural resource surveys of the area.

The following resources were identified within the 2016 APE: Saratoga Creek Bridge; Campbell's Sawmill; Saratoga Springs Campground and Resort; 22900 Big Basin Way, which includes a masonry structure located partially within the right of way and extending into the property; and a mid-century

can/debris scatter. The mid-century can/ debris scatter was subsequently removed from the revised 2018 APE as project design refinements placed the resource clearly outside the project footprint.

Of those resources identified within the APE, one was previously determined eligible for the NRHP and CRHR: Saratoga Creek Bridge. The bridge was found eligible for the NRHP under Criteria A[9] and C[10], and CRHR Criteria 1[11] and 3[12], with a period of significance of 1902. Saratoga Creek Bridge is significant under Criterion A/1 for its contribution to the industrial and recreational growth in the area and specifically to the City of Saratoga. The bridge is also significant under Criterion C/3 as an example of an earth-filled, concrete arch bridge, with masonry spandrel walls; the bridge is one of only two such examples that are left in the county, and one of a dwindling number of masonry bridges in California. Its character-defining features are its masonry spandrel walls, piers and abutments, asymmetrical concrete arches, and earth-filled construction. The Saratoga Creek Bridge is a state-owned historical resource subject to PRC 5024(f) and 5024.5; it is also a Section 4(f) resource.

Three resources were determined not eligible for the NRHP and CRHR: Campbell's Sawmill; Saratoga Springs Campground and Resort; and 22900 Big Basin Way, which includes a masonry structure located partially within the right of way and extending into the property.

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[9] Criterion A designation under the NRHP is a property, "…associated with events that have made a significant contribution to the broad patterns of our history." (National Park Service 2017).

[10] Criterion C designation under the NRHP is that, "Properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction." (National Park Service 2017).

[11] Criterion 1 designation under the CRHR is that the resource is, "Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States." (Office of Historic Preservation 2017).

[12] Criterion 3 designation under the CRHR is that the resource, "Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values." (Office of Historic Preservation 2017).

ENVIRONMENTAL CONSEQUENCES

Both Build Alternatives

Both Build Alternatives would have an adverse effect on the Saratoga Creek Bridge under Section 106. The project would result in a substantial adverse change to the Saratoga Creek Bridge under CEQA. In addition to this, the bridge is also considered a Section 4(f) resource, and the adverse effect determination is considered a "use" under Section 4(f). The Programmatic Section 4(f) is in Appendix A.

The Saratoga Creek Bridge Replacement Project would remove, demolish, or significantly alter the existing Saratoga Creek Bridge. Caltrans has consulted with the SHPO on an adverse effect determination and developed a Memorandum of Agreement (MOA) for the bridge property in coordination with a working stakeholder group. Caltrans submitted a Finding of Effect (FOE) to the SHPO on March 29, 2018 and SHPO concurred with the finding of adverse effect on April 26, 2018. Following the changes to the project design, a supplemental FOE was sent to the SHPO on May 6, 2019 and the SHPO concurred with the supplemental finding of adverse effect on June 6, 2019. The MOA was approved by the SHPO on June 20, 2019.

The mid-century can/debris scatter is outside of the project area and would not be impacted by the project.

While Campbell's Sawmill is not eligible for either the NRHP or CRHR, it does appear to be a locally important site. As a project feature, the sawmill site would be protected from project impacts where possible.

"Hybrid" Alternative

The "Hybrid" Alternative proposes to remove the modern bridge deck and part of the earthen rubble fill to place a new bridge within the existing bridge. This would result in a loss of integrity of the original bridge design since it would no longer function as a concrete arch bridge with masonry spandrel walls. Instead the masonry walls would function as a decorative façade for the new bridge. The integrity of feeling and setting would be moderately affected due to the changes to the massing of the roadbed and the railing type. The integrity of materials and workmanship would be somewhat retained as the masonry walls will remain. The integrity of the association will be largely diminished because while the bridge will still serve to connect tourism and

industry along SR-9 per its significance under Criterion A of the NRHP, it would no longer function as a concrete arch bridge with masonry walls designed by the master engineer John McMillian from which it also derives historic significance under Criterion C of the NRHP.

This alternative would have a Finding of Adverse Effect on the existing Saratoga Creek Bridge.

ABC Alternative

This alternative proposes to remove the existing bridge and construct an entirely new structure along the existing alignment. The existing bridge is a significant example of engineering and architecture built in 1902. By replacing the bridge in its entirety, there would no longer be any aspects of historic integrity that associates the bridge with its historic significance. This alternative would have a Finding of Adverse Effect on the existing Saratoga Creek Bridge due to its loss of all historic integrity.

No-Build Alternative

The No Build Alternative would have a Finding of No Historic Properties Affected.

SUMMARY

Within the project APE, there is one historic property that has been determined eligible for inclusion to the NRHP and CRHR, the Saratoga Creek Bridge. The 1902 Saratoga Creek Bridge would be removed, or altered enough, for both build alternatives to remove characteristics that helped to qualify the historic property for the NRHP. The project has a “Finding of Adverse Effect” on the 1902 bridge structure.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code, Section 7050.5, states that further disturbances and activities must stop in any area or nearby area suspected to overlie remains. At this time, the person who discovered the remains will contact Caltrans, District 4, Office of Cultural Resource Studies and the remains will be assessed. Should the remains be

determined human, Caltrans Office of Cultural Resource Studies will contact the Santa Clara County Coroner. If the remains are thought by the coroner to be Native American, then the coroner would notify the NAHC, which, pursuant to PRC Section 5097.98, would then notify the Most Likely Descendent. Caltrans Office of Cultural Resource Studies will work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

PROJECT FEATURES

The following project features would be incorporated into the project design, using a combination of construction strategies, design modifications, and context-sensitive solutions to avoid and minimize potential project impacts:

- Other historic structures (Sawmill) will be avoided, if possible, during construction.
- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following AMM measures would apply to project effects on cultural resources. These measures are from the MOA that was prepared after the public comment period in coordination with a working stakeholder group. This MOA outlines the mitigation agreed to by Caltrans and the SHPO. The project (undertaking) as a whole would have an adverse effect on historic properties.

AMM CULT-1: Historic American Building Engineering Record Survey (HAER) – Level II Documentation. This report will be prepared by a Professionally Qualified Staff per the guidelines outlined in the *Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation* (National Park Service 1983). The report will document the historic bridge as it exists prior to construction. It will include a written history and description of the bridge as well as selected drawings and photographs that showcase the historic structure and its unique elements.

AMM CULT-2: Digital Scan of Bridge. Caltrans will complete a digital scan of the existing bridge before construction begins to document its existing dimensions and features.

AMM CULT-3: Historical Narrative. An electronic publication will be completed that documents the transportation history along SR-9.

AMM CULT-4: Campfire Program with Sanborn County Park. Caltrans will work with Sanborn County Park to develop an appropriate Campfire Program to be used in the park's Interpretive Program.

AMM CULT-5: Digital Content for Electronic Historic Platform(s). Caltrans will contribute documentation of the historic Saratoga Creek Bridge to online digital platform(s) that document historic structures.

2.2 Physical Environment

2.2.1 Water Quality and Stormwater Runoff

REGULATORY SETTING

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the U.S. from any point source[13] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. RWQCBs administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

[13] A point source is any discrete conveyance, such as a pipe or a constructed ditch.

The goal of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (U.S. EPA) Section 404 (b)(1) Guidelines (40 CFR Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[14] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section, in Section 2.3.1 Biological Environment.

[14] The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the State include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of total maximum daily loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting

beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of stormwater discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that is designed or used for collecting or conveying stormwater." The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. Caltrans' MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

Caltrans' MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below);

2. Caltrans must implement a year-round program in all parts of the State to effectively control stormwater and non-stormwater discharges; and

3. Caltrans stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) BMPs, to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for

implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address stormwater runoff.

Construction General Permit

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009 and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates stormwater discharges from construction sites that result in a disturbed soil area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into risk levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the risk level determined. For example, a risk level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans' SWMP and Standard

Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

AFFECTED ENVIRONMENT

A Water Quality Study was prepared for this project in June 2017 by Caltrans Office of Water Quality and Mitigation. A revised study was prepared in May 2019 to assess the current project build alternatives.

Despite its name, the Saratoga Creek Bridge actually crosses over Sanborn Creek[15]. Sanborn Creek is a tributary of Saratoga Creek and the creeks merge just a few hundred yards downstream from the project site. This area is part of the Saratoga Creek Watershed, which covers about 19 square-miles and is part of the San Francisco Bay RWQCB – Region 2. See Figure 2.1-1 for the location of the project area within the Saratoga Creek Watershed.

[15] Sanborn Creek merges with Bonjetti Creek just a few hundred feet upstream from the bridge location. There are some sources that list this length of the creek as Bonjetti Creek, while others list it as Sanborn Creek. The project development team consulted with the Army Corps of Engineers and all parties agreed to refer to this length of the creek as Sanborn Creek.

Major tributaries of Saratoga Creek are San Andres Creek, Sanborn Creek, and Booker Creek.

The headwaters of Saratoga Creek are in the steep northeastern slopes of the Santa Cruz Mountains, along Castle Rock Ridge at 3,200 feet above sea level. The creek flows east downstream through the forested slopes of the Santa Cruz Mountains for about 4.5 miles, before coming out into the foothills of the mountains. Here, it flows for about 1.5 miles through the low-density residential areas of the City of Saratoga and then for another 8 miles through the alluvial plain[16] of Santa Clara Valley. The creek eventually flows through the densely populated cities of San Jose and Santa Clara before joining with San Tomas Creek and draining into Lower South San Francisco Bay.

Saratoga Creek supports both warm- and cold-water fish species. Three native fish species have been found in Saratoga Creek and may also be found in Sanborn Creek. These are California roach, Sacramento sucker, and rainbow trout. Further discussion of fish and other aquatic species can be found in Section 2.3 Biological Environment. There are no expected anadromous fish[17] in the section of the creek around the project area because multiple fish passage barriers are downstream. The creek is also used for recreation. The U.S. EPA lists Saratoga Creek as an impaired waterbody[18] as of 2012 (United States Environmental Protection Agency 2017) for cold freshwater habitat and wildlife habitat. This is due to trash from illegal dumping and urban runoff/storm sewers, as well as a pollutant called diazinon. Diazinon is a commonly used pesticide for controlling insects, worms, and maggots in crops and fruit trees, in addition to common household pests, such as ants and cockroaches.

[16] Alluvial plains are areas that have been gradually formed by rivers as they periodically flood and deposit soil and gravel to form a relatively flat landscape.
[17] Fish species, such as salmon, that migrate from salt water to fresh water for spawning.
[18] The U.S. EPA defines impaired waterbodies as waters that do not meet established water quality standards that are set by the U.S. EPA based on how the waterbody is used (i.e. for drinking, recreation, etc.). (United States Environmental Protection Agency 2017)

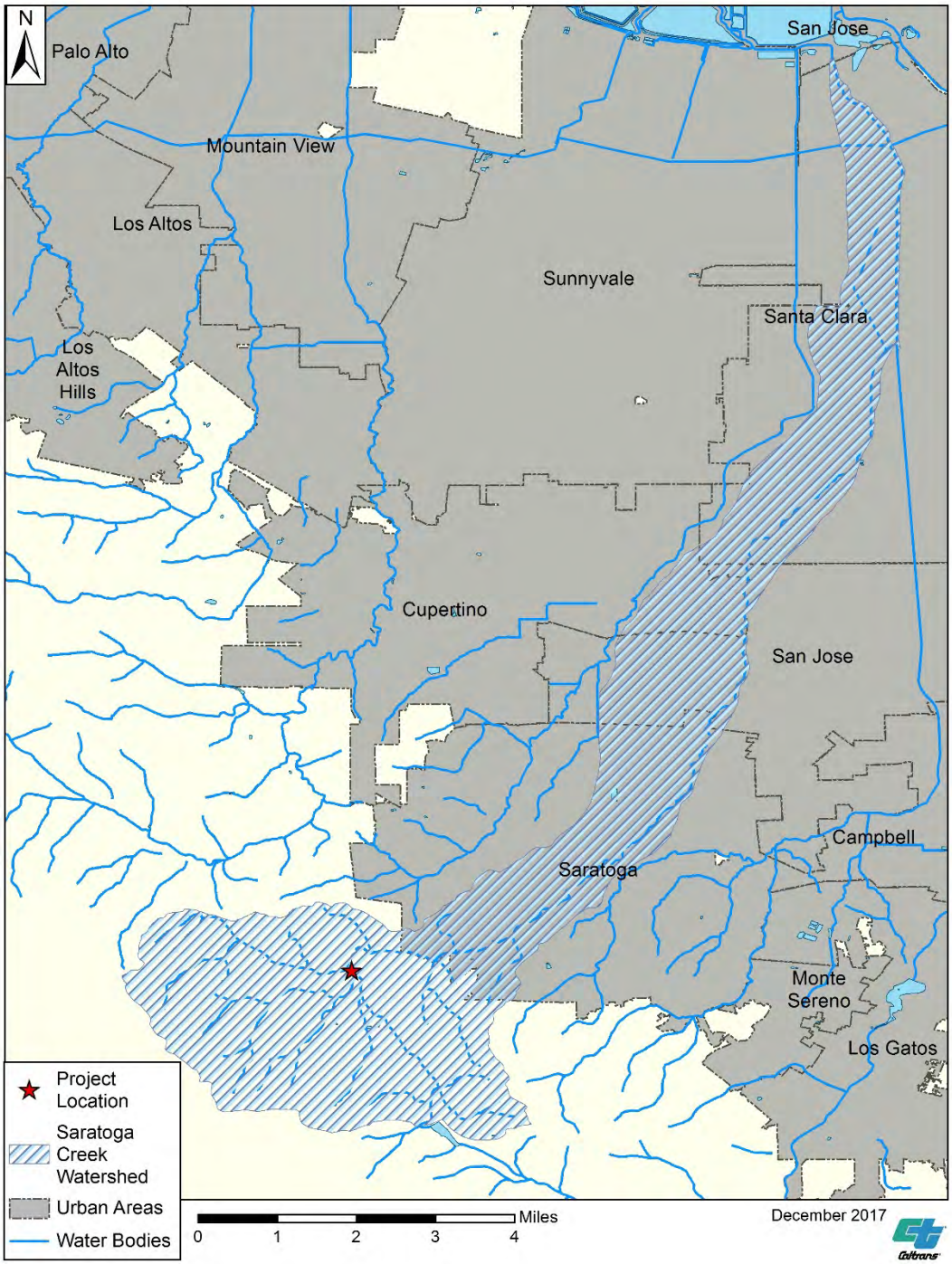


Figure 2.2-1: Location of Project Area within the Saratoga Creek Watershed

The project area is in a location where most of the soils are well drained, so water can absorb quickly into the ground. Currently, between 20 and 40 percent of stormwater volume could be infiltrated in unpaved areas. There is no major groundwater basin or subbasin beneath the project site. Groundwater is expected to match the water level of Sanborn Creek near the creek banks, but the depth farther upslope may change seasonally and would have to be tested before excavation to determine the exact depth.

ENVIRONMENTAL CONSEQUENCES

Common pollutants of concern that Caltrans has determined generally characterize highway stormwater runoff throughout the State of California are phosphorus, nitrogen, copper, lead, zinc, sediments, general metals (unspecified metals), and litter (Caltrans, Division of Environmental Analysis 2004). Not all of these pollutants are from human causes. Natural sediment erosion and decomposing leaves are examples of some of the natural sources of these contaminants. Human sources result from causes such as combustion of fossil fuels, trash and falling debris from motorists, and wearing of brake pads. All of the project alternatives would maintain these current levels of impacts to Sanborn Creek.

Standard project features of the Build Alternatives would include expanded stormwater drainage systems that would reduce the velocity of stormwater runoff from the road surface of SR-9. This would decrease the potential for erosion that may introduce sediment pollution into Sanborn Creek and reduce the potential for the runoff to increase water flow in the creek downstream.

Both build alternatives would have similar potential construction impacts. Soil erosion from clearing and grubbing, riparian vegetation removal, excavation, backfilling, and general project feature construction could cause sediment erosion into Sanborn Creek. Caltrans would apply the requirements from the existing NPDES permit and the Construction General permit, along with standard BMPs for construction site management to address soil erosion, stabilize disturbed soil areas, and maximize vegetated surface.

A temporary water detour/diversion system would be designed for the section of Sanborn Creek that would have construction activities taking place overhead. This would protect the creek from debris falling during work activities for both Build Alternatives. A SWPPP would be developed for both

Build Alternatives. There would be an erosion risk assessment analysis performed before construction to determine the risks for soil erosion and the best way to combat those risks.

Water quality and stormwater monitoring would be done for this project. This will be to ensure that the construction activities are not violating any of the CWA regulations for water pollution in Sanborn or Saratoga creeks.

The only potential permanent impacts proposed by the project build alternatives result from new and replaced impervious surfaces. The “Hybrid” Alternative proposes approximately 0.45 acres of new and replaced impervious surfaces. The ABC Alternative proposes 0.36 acres of new and replaced impervious surfaces. The potential impacts from these new and replaced impervious surfaces are addressed in the proposal of permanent BMPs that would be required under the 401 Permit and permanent erosion control measures listed in the AMM section below.

Once the project is completed, standard maintenance BMPs would be applied in order to reduce pollutant discharges during highway maintenance. These are BMPs like litter pickup, street sweeping, and stenciling storm drain inlets. Both project build alternatives would have these BMPs applied in an appropriate manner.

PROJECT FEATURES

Prior to construction, a Qualified SWPPP Developer will identify appropriate measures to include in the project. Below are examples of these measures that may be incorporated into the project design as project features:

- Biodegradable erosion control netting can be applied in combination with hydroseeding. The netting is designed to keep the surface soils in place while the plants are established. After the plant root systems have been established, they would be able to stabilize the soil once the netting has broken down naturally.
- Tacked straw can be used to cover seeded areas and protect them from being washed or blown away during rainstorms.
- Biodegradable fiber rolls can be used on disturbed slopes to retain sediment and help control stormwater runoff.

- Outlet protection and velocity dissipation devices can be placed at the downstream end of culverts and channels to reduce the velocity of water flowing out of the culvert and preventing erosion at the mouth of the culvert or channel and further downstream.

- Dust palliative measures, such as protection mats at the entrances to worksites and storage areas, street sweeping, and covering earth piles, can help prevent airborne soil from entering waterways.

- All bare soils would be protected from rain erosion through the use of soil-stabilizing BMPs, like mulch, soil binders, plastic sheeting, or erosion control blankets.

- An erosion control plan would be proposed for any unpaved areas that would be disturbed during construction.

Construction vehicles and equipment may also leak oils, grease, and other fluids. These and other fluids used for construction, have the potential to seep into the groundwater or be washed away by surface water runoff and make their way into Sanborn and Saratoga Creeks. The following project features are included in all construction projects in order to prevent contaminated runoff from entering nearby water bodies:

- Caltrans requires that all construction vehicles and equipment be maintained and checked for leaks.

- Vehicles would not be allowed to be cleaned or refueled near any water bodies.

- The contractor must develop a spill response plan that would require Caltrans approval.

- Silt fences, fiber rolls, gravel bags, drainage inlet protection, and other approved sediment control BMPs also prevent soil and trash from entering waterways by slowing down the water runoff and allowing objects and sediment to settle out, where it can be collected and disposed of properly.

- Concrete washouts would be established for cleaning equipment appropriately.

- If concrete curing agents are used, they would be sprayed as close to the surface of the concrete as possible to prevent overspray from contaminating other areas.
- Drainage inlets would be protected before the use of concrete curing compounds to prevent them from being washed into the inlet and potentially into Sanborn Creek.
- Standard BMPs for jobsite management would be employed. These include controlling potential water source pollutants before they come into contact with the water through:
    - Non-stormwater management: using clear water conservation practices that check and manage surface and groundwater for contamination during dewatering, pile drilling operations, concrete curing and finishing, and material and equipment use.
    - Waste management to ensure that any construction byproducts and garbage generated are disposed of appropriately.
    - Materials pollution control would be employed to ensure that material delivery, storage, use, and stockpile management are done in a manner that is appropriate and prevents the overuse or spilling of any waste materials that could enter the creek or groundwater.
    - Hazardous waste, contaminated soil, sanitary or septic, and liquid waste management would meet BMP standards for Caltrans.
    - Hazardous chemicals, drums, and bagged and boxed materials would not be directly stored on the ground.
    - Hazardous materials, such as curing compounds, solvents, paints, chemicals, hydraulic fluids, form oil, fuel, oil, and grease, would be stored in a secondary containment unit away from any surface water bodies.
    - Temporary septic facilities would be located away from drainage inlets, watercourses, and traffic circulation.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION (AMM) MEASURES

Caltrans will consult with the San Francisco RWQCB – Region 2 to finalize an agreed upon list of minimization and/or mitigation measures for the 401 permit.

AMM WATER-1: Water Treatment BMPs. A treatment strategy would be developed with the RWQCB to incorporate the best method for removing pollutants of concern, particularly litter, from stormwater runoff from the new and replaced paved areas. Bioswales, low-impact development BMPs (such as bioretention basins), vegetated ditches, and other strategies for designing collectors for concentrated water flows would be considered based on the area topography, soil properties[19], how frequently ponds/puddles occur after rainfall, weather conditions, and the land classification.

AMM WATER-2: Permanent Water Treatment BMPs. Caltrans will work with the RWQCB to determine potential areas for permanent treatment BMPs during the process for obtaining the Section 401 permit. Offsite locations/mitigation would be considered if there is not enough room for the required square footage of treatment BMPs onsite.

AMM WATER-3: Stormwater Pollution Prevention Plan. A SWPPP would be developed and implemented for this project per the requirements of the Construction General Permit.

AMM WATER-4: Erosion prevention. New flared end outlets, velocity dissipation devices, replacement planting of vegetation, and erosion control netting would be incorporated into the project design in order to prevent and minimize permanent erosion of exposed soils after the project is constructed.

2.2.2 Geology/Soils/Seismic/Topography

REGULATORY SETTING

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under CEQA.

[19] Soil properties, such as the type of soil, how well it drains, and how easily it erodes, can all factor into determining the appropriate strategy for using these design features.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using Caltrans's Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department's Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

AFFECTED ENVIRONMENT

A District Preliminary Geotechnical Design Report for the Saratoga Creek Bridge Replacement Project was prepared by the Caltrans Office of Geotechnical Design – West (Office of Geotechnical Design - West 2016) to present existing geologic and geotechnical information. The report was completed on June 30, 2016. This section discusses geology, soils, and seismic concerns as they relate to public safety and project design.

Earthquakes are prime considerations in the design and retrofit of structures. Caltrans Office of Earthquake Engineering Analysis and Research is responsible for assessing the seismic hazards for Caltrans projects. This office prepared a draft structural performance assessment of the existing Saratoga Creek Bridge in February 2016. Structures are designed using SDC. These criteria provide the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities.

Regional Geology

The project is located in the Coast Range Geomorphic Province of Central California, a series of northwest-trending mountain ranges (with elevations of 2,000 to 4,000 feet, and occasionally 6,000 feet, above mean sea level), and intermountain valleys, bounded in the east by the Great Valley and to the west by the Pacific Ocean. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary rock layers. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The Coast Ranges are nearly parallel to the active San Andreas Fault, which is

more than 600 miles long, extending from Point Arena to the Gulf of California.

Topography

The project is located in the east foothills of the Coast Range, at an elevation of approximately 900 feet above mean sea level. Drainage at the site is generally characterized as natural sheet flow from the slopes of the hillside down into Sanborn and Saratoga Creeks. The elevation change in the project area is about 43 feet from the lowest point in Sanborn Creek (847.5 feet above mean sea level) to SR-9 (891 feet above mean sea level).

Soils

The General Soil Map of the Western Area of Santa Clara County (see Figure 2-2.2: Soil Survey) shows that the project is underlain by Katykat-Sanikara complex soils (USDA, 1968). The Katykat soils, as well as the Sanikara soils, are moderately deep and well drained, derived from mudstone and/or sandstone that accumulates at the foot of the slope. Permeability is moderate to high in both soils. Runoff is high for the Katykat and low in the Sanikara soils.

Soil Unit Symbol	Soil Unit Name	Soil Unit Characteristics
516	Ben Lomond Gravelly Sandy Loam	15-30% Slopes
517	Ben Lomond-CasrockF3-4 Complex	30-50% Slopes
567	Sanikara-Mouser-Rock Outcrop Complex	50-70% Slopes
569	Katykat-Sanikara Complex	8-30% Slopes

Figure 2.2-2: Soil Survey

Erosion

According to the Soil Survey, Western Area of Santa Clara County (U.S. Department of Agriculture 1968), the soils within the project limits have a low erosion hazard. The highest erosion ratings are generally correlated to slope angle, with very severe erosion hazards for soils on slopes steeper than 9 to 15 percent. Where bedrock is exposed, there is no hazard of erosion.

Shrink/Swell

The expansion and/or contraction of clayey soil can cause the ground in the project area to shift. This can cause cracks to form in structural foundations

and in roadways. The impact of shrink/swell will be negligible since the bridge will be supported by foundations that extend below all soils.

Groundwater

The depth to groundwater varies across the project site as topographic, geologic, and hydrologic conditions change. The depth to groundwater changes seasonally and is generally considered to match the water level of Sanborn Creek.

Mineral Resources

The project area is not used for the mining of any mineral resources and is not planned for use as such in the Santa Clara County General Plan (1994).

Geologic and Seismic Hazards

Geologists and seismologists recognize the San Francisco Bay Area as one of the most active seismic regions in the United States. There are three major faults that trend in a northwest direction through the Bay Area, which have generated about 12 earthquakes per century large enough to cause significant structural damage. These earthquakes occur on faults that are part of the San Andreas Fault system that extends for at least 700 miles along the California Coast, and includes the San Andreas, Hayward, and Calaveras Faults. The San Andreas Fault is located approximately 1,000 feet southwest of the site (see Figure 2.2-3, Vicinity Active Fault Zones). The Hayward and Calaveras Faults are located more than 20 miles to the northeast of the site (See Figure 2.2-4, San Francisco Bay Region Earthquake Probability Map).

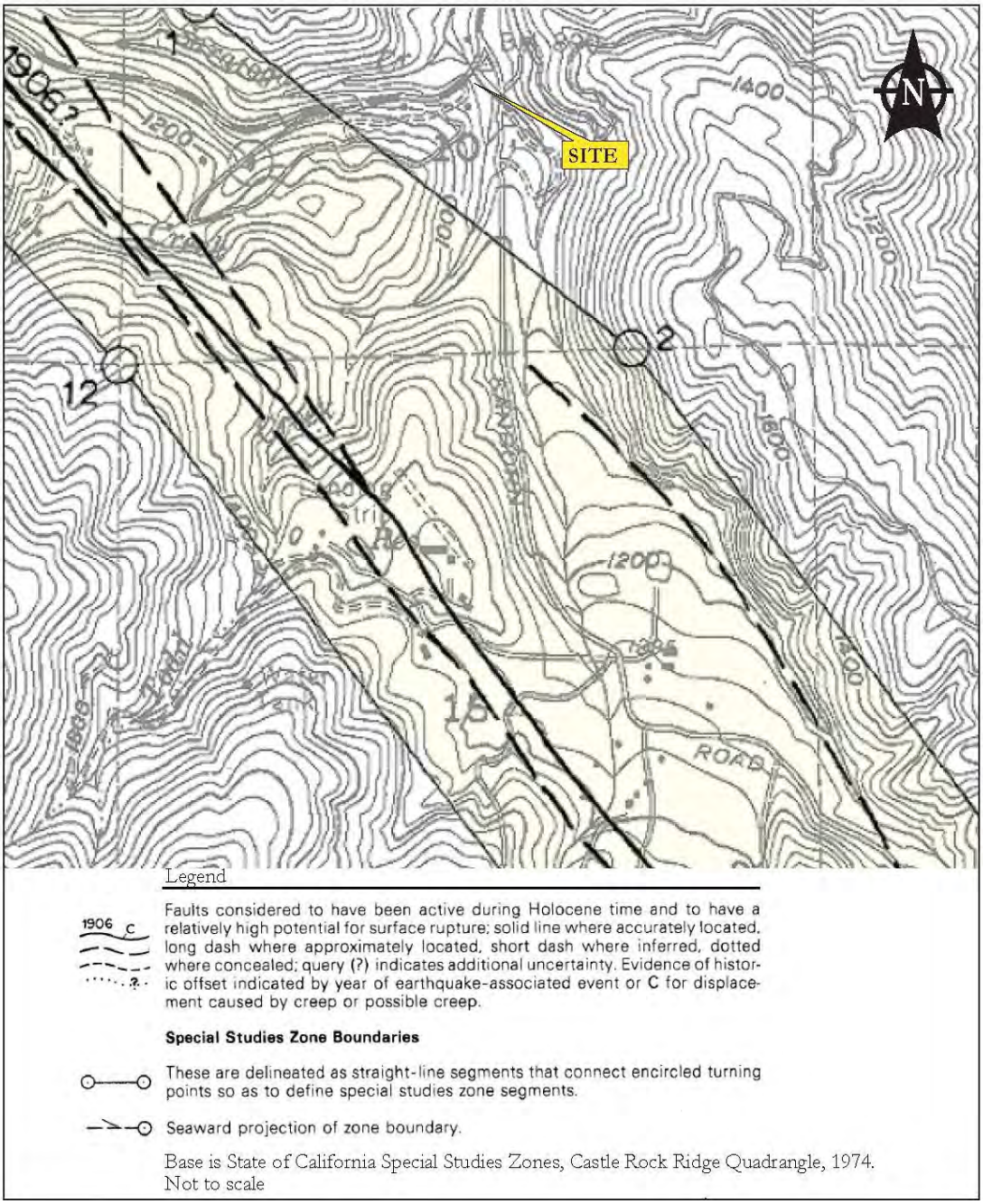
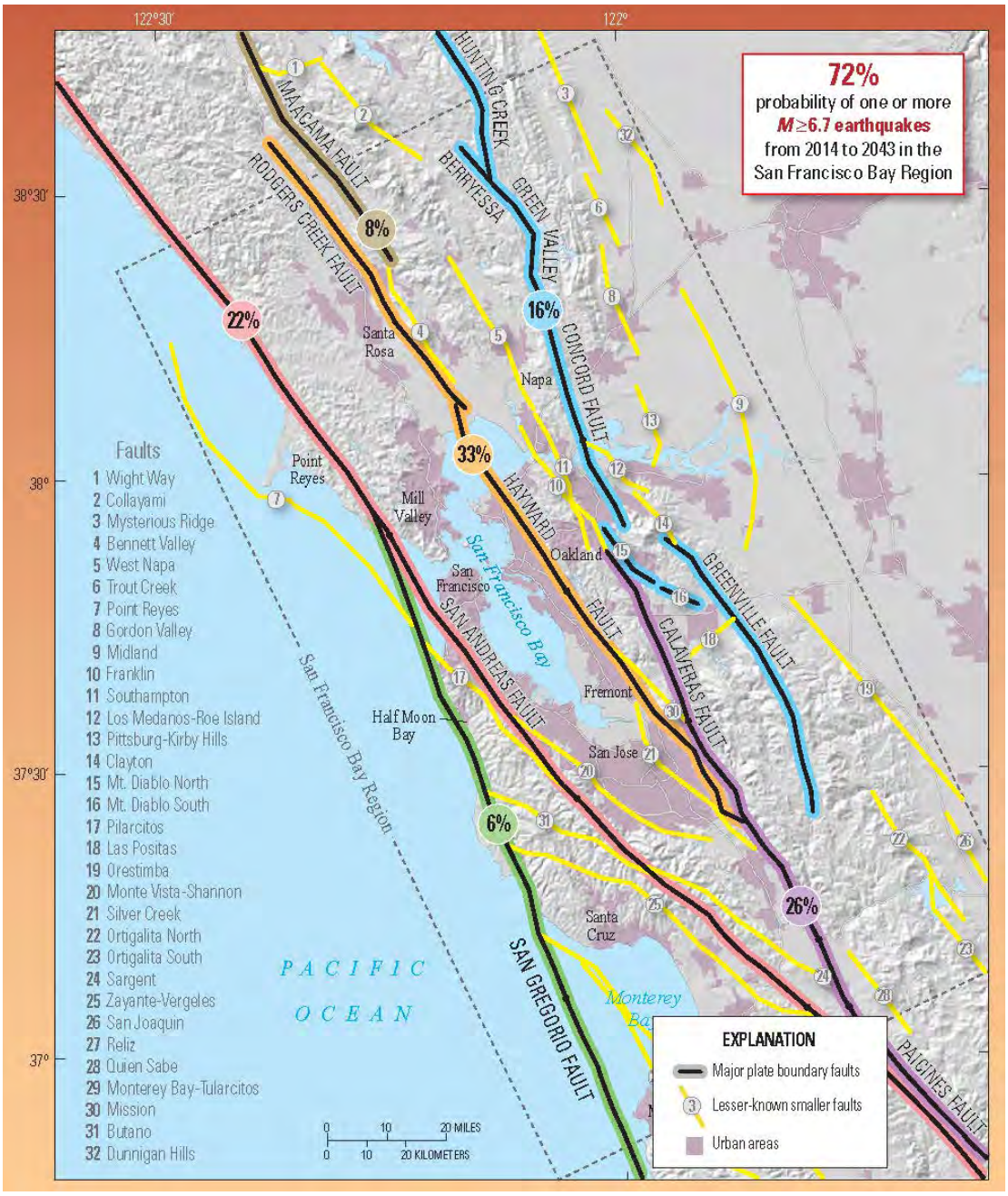


Figure 2.2-3: Vicinity Active Fault Zones



Source: United States Geological Survey's Earthquake Outlook for the San Francisco Bay Region 2014-2043. (Association of Bay Area Governments 2019)

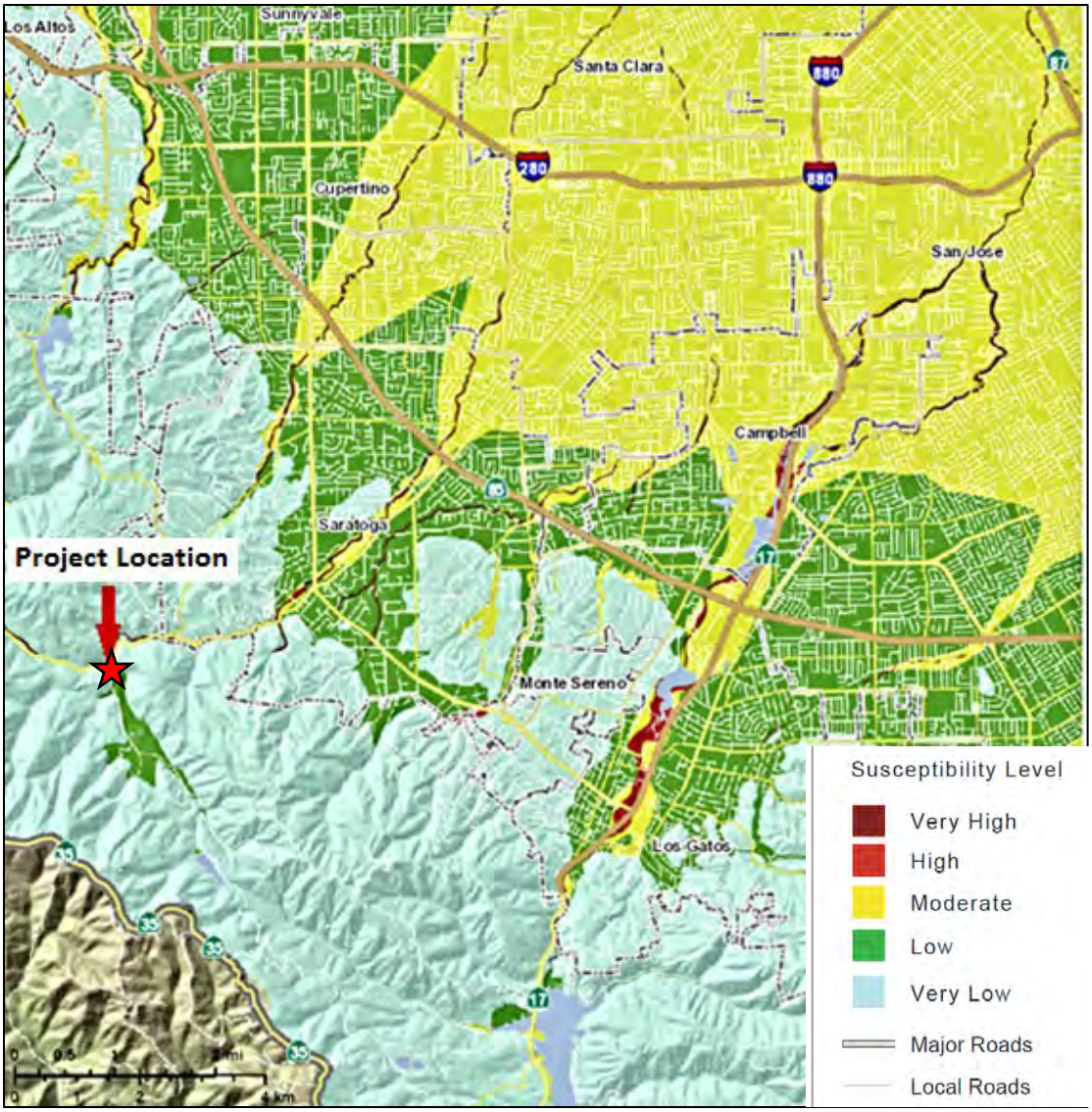
Figure 2.2-4: San Francisco Bay Region Earthquake Probability

Seismologic and geologic experts convened by the U. S. Geological Survey (USGS) concluded that there is a 72 percent probability for at least one large earthquake, of magnitude 6.7 or greater, in the Bay Area before 2043. They also maintain that there could be more than one earthquake of this magnitude and that numerous moderate earthquakes, of about magnitude 6 are probable before 2043. The San Andreas Fault is estimated to have a 22 percent probability of producing a magnitude 6.7 or larger earthquake by 2043 (Association of Bay Area Governments 2019). The probability of the Hayward, Calaveras, and Greenville Faults producing a similar size earthquake during the same time period is 33 percent, 26 percent, and 16 percent, respectively (see Figure 2.2-4, San Francisco Bay Region Earthquake Probability).

Ground rupture and surface deformation, which result from differential movement along a fault trace, are potential geologic issues that can occur on a project site. A ground rupture is the movement of the ground along one side of a fault, relative to the other side, caused by an earthquake. Surface deformation is the resulting change to the land from a ground rupture or other seismic event. These primary seismic effects are not expected to occur on the site because there are no active faults mapped within the project limits, and the site is not located within the limits of a State of California Earthquake Hazard Zone (formerly known as Alquist Priolo Fault Zone).

Liquefaction of Natural Ground

Liquefaction is a process by which soil deposits below the water table temporarily lose strength and behave as a viscous liquid rather than a solid. This is typically caused by a moderate to large earthquake. In general, very loose to medium dense, clean, fine- to medium-grained sand, and very soft to firm silt soils (that are relatively free of clay) are most susceptible to liquefaction. Structures situated above such temporarily liquefied soils may sink or tilt, depending on the weight of the structure, the depth to the liquefied soil layer, and the nature of the overlying soils. This can cause significant structural damage. Figure 2.2-5, Liquefaction Susceptibility Map, shows the conditions in the project area, illustrating how susceptible the soils in the project area are to liquefaction in the event of a medium to large earthquake (Association of Bay Area Governments 2019). According to the liquefaction susceptibility map, the liquefaction susceptibility in the project area is low to very low.



Source: (Association of Bay Area Governments 2019)

Figure 2.2-5: Liquefaction Susceptibility Map

Cracking

Earthquakes may cause lurch cracks to develop in the silty and clayey soil overlying the project area. These types of cracks form from the sudden jerking movements of the earth that may occur during an earthquake. The potential for lurch cracking is higher in the rainy periods when the soil is saturated. The hazard from cracking is considered minimal in the project area.

Differential Compaction

During moderate and large earthquakes, soft or loose, natural or fill soils can become compacted and settle, often unevenly across a site. The project area is susceptible to differential compaction because it is underlain by fill.

ENVIRONMENTAL CONSEQUENCES

Build Alternatives

The potential for differential soil compaction and shrink/swelling to impact the bridge is considered low due to the deep foundations planned for both bridge Build Alternatives. Liquefaction is also not a concern for the Build Alternatives because the project area is in an area of low liquefaction susceptibility.

As noted above, moderate to large earthquakes are probable along several active faults in the greater Bay Area. Strong ground shaking should be expected at some point during the design life of both proposed Build Alternatives. The improvements proposed by the project would include design features that meet current earthquake resistance standards. This would minimize existing hazards from strong ground shaking. As previously discussed, the preferred alternative is anticipated to improve the remnant structure's ability to survive a seismic event by removing the weight of traffic and the weight associated with upper part of the earthen fill.

All retaining walls would be designed to meet current seismic standards for the site-specific geologic and seismic conditions.

The project would avoid and minimize the potential for increasing the threat of soil destabilization during a seismic event through the implementation of the design features that are listed in Section 2.2.1 Water Quality. These features utilize a combination of source and sediment control measures to stabilize soils in disturbed areas. These features include replacement planting and temporary construction site BMPs, such as silt fence, fiber rolls, gravel bags, drainage inlet protection, and other approved sediment control BMPs, which prevent soil and trash from clogging storm drain systems or watercourses. All bare soils would be protected before it rains. Soil stabilization BMPs, such as mulch, soil binders, plastic sheeting, or erosion control blankets, would also be used to protect bare soils.

Since the project area does not support and is not planned for mining of mineral resources, construction of the Build Alternatives would not prevent the mining of any mineral resources in the future.

As discussed in Section 2.1.4 Visual/Aesthetics, the steep slopes of the mountains in the project area are densely covered with mature trees. These trees conceal most of the topographical features. Tree removal required for the build alternatives would likely result in temporarily opening up the view of the topography in the area. Replacement planting, also discussed in Section 2.1.4 Visual/Aesthetics, would gradually regrow to cover this view once again.

No-Build Alternative

The No-Build Alternative would have no impact on geology/soils. However, the existing bridge is not designed to withstand the same magnitude of seismic event that the Build Alternatives would have been designed to withstand. Seismic modeling of the existing bridge revealed that the bridge would not perform well in withstanding an earth-shaking event. This is especially concerning in the case of past repeated events, even if they were of lower magnitude, because the bridge would be subsequently weakened after each event.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

There are no proposed AMM measures for geologic or seismic concerns. The project design and features already address geologic, soils, and seismic concerns.

2.2.3 Paleontology

REGULATORY SETTING

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils.

A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects.

23 USC 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 USC 431-433 above and state law. This project

is partially funded with federal funds. These funds would be used in the event that paleontological resources are discovered and need to be recovered.

Under California law, paleontological resources are protected by CEQA. This act applies here because Caltrans is a state agency and must comply with all state regulations in order to approve the project.

AFFECTED ENVIRONMENT

A Paleontological Identification Report (PIR) was prepared by the Office of Geotechnical Design – West in December 2016. This report was an initial screening to assess whether project-related ground disturbance would take place in a location where there was a potential for paleontological resources (fossils).

Caltrans' standards for determining paleontological sensitivity criteria were used in assessing the paleontological significance of the surrounding geologic units. These standards rate geologic units by the likelihood of there being significant fossil materials. Geologic units are rated as having a "High Potential", "Low Potential", or "No Potential" for bearing significant fossil materials.

The project is located on Sanborn Creek in the Santa Cruz Mountains. These mountains are a result of uplift from the nearby San Andreas Fault system. They are composed mostly of sedimentary rock formations with some potential igneous rock intrusions. The age of the rock formations in the project vicinity range from 145 million years ago to less than 10,000 years ago.

PER revealed that the project is partially located on a portion of the Saratoga Creek valley floor that is composed of alluvial fan deposits and partially located on an unnamed sedimentary rock unit. See Figure 2.2-6, Vicinity Geologic Map, for a geologic map of the project area. This map shows the geologic units of the area surrounding the project site (identified at PM 4.85). The project lies across three geologic unit layers: the Alluvial fan and fluvial Deposits (Qpaf) layer, the diabase and gabbro (db) layer, and an Unnamed sedimentary rock (Tu) layer (Conserva 2018). Figure 2.2-6 Vicinity Geologic Map shows the project location in relation to these geologic layers.

The alluvial fan and fluvial deposits are between 10,000 and 126,000 years old and are very rocky, with a mixture of sand and clay soils. They were most

likely deposited by the nearby creeks that still run through the area. The PER determined that there is a low potential for fossils to occur within the Qpaf layer.

The unnamed sedimentary rock unit is mostly mudstone, shale, and argillite with some sandstone. This deposit is estimated to be from between 56 million to 34 million years ago. The PER determined that there is a low potential for fossils to occur within the Tu layer.

The Diabase and gabbro rock unit is composed of intrusive igneous rock estimated to be from 200 million to 145 million years ago. There is no potential for fossils to occur within the db layer because of its volcanic origins.

ENVIRONMENTAL CONSEQUENCES

None of the project alternatives are likely to impact significant vertebrate, invertebrate, or plant fossils. The Qpaf and Tu geologic layers have a low potential to contain fossils and the Db geologic layer has no potential to contain fossils.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following AMM measures are proposed to address potential impacts to paleontological resources:

AMM PALEO-1: Worker Paleontological Awareness Training.
Construction personnel will attend a mandatory paleontological resources awareness program delivered by a Caltrans approved paleontologist.

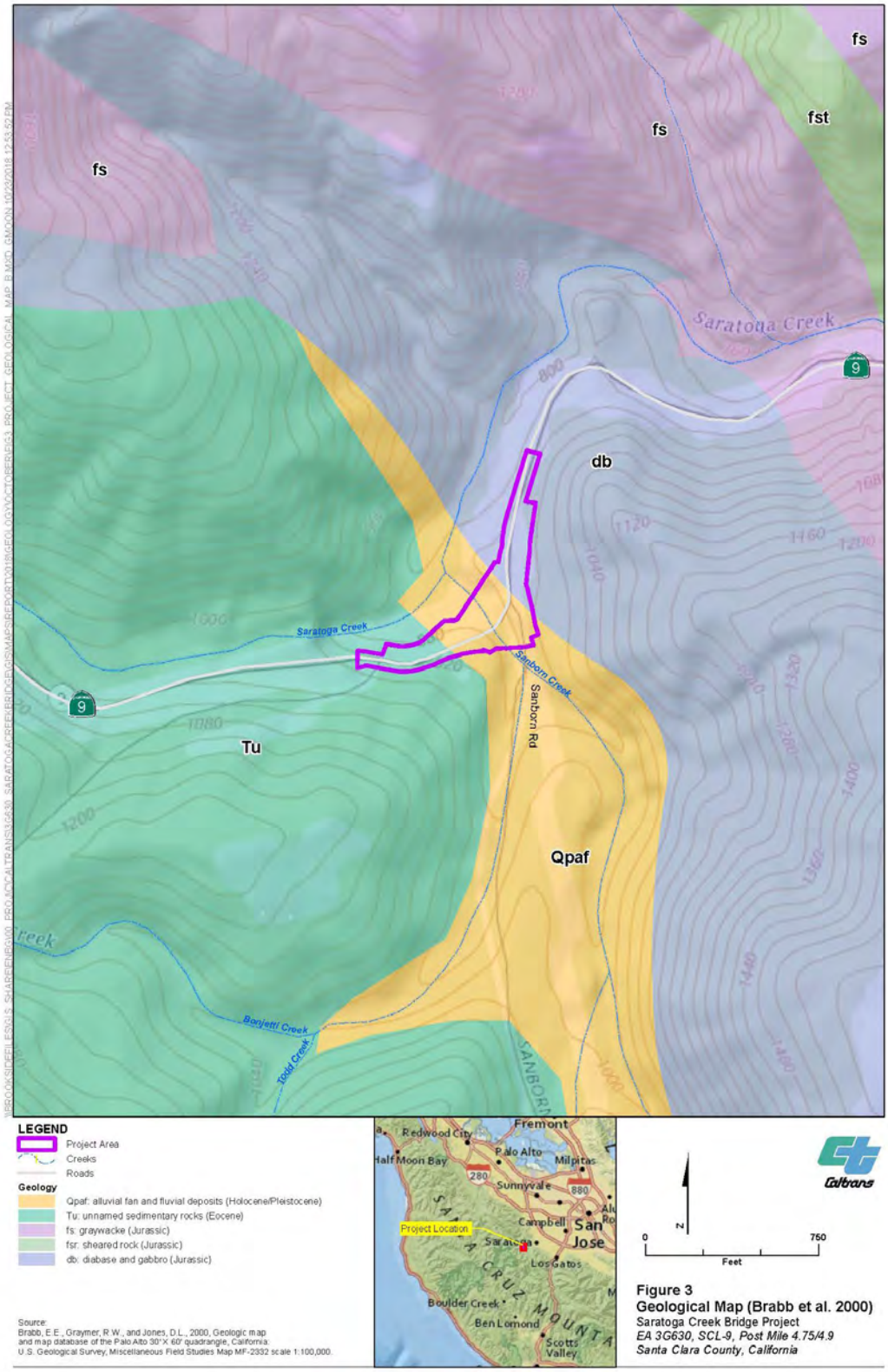


Figure 2.2-6: Vicinity Geologic Map from Paleontological Evaluation Report (Conserva 2018)

2.3 Biological Environment

2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

REGULATORY SETTING

Riparian habitat is protected under Sections 1600-1616 of the California Fish and Game Code (CFGC) and regulated by CDFW. Any activities that will interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream, including any riparian habitat linked to the health of the waterway, will require a Lake and Streambed Alteration Agreement.

Oak woodlands are protected under the State of California's Public Resources Code §21083.4(b), which requires counties to determine whether a project within its jurisdiction will result in conversion of oak woodlands that would have a significant effect on the environment. State Senate Concurrent Resolution No. 17 – Oak Woodlands also protects oak woodlands by requiring state agencies that have land use planning duties and responsibilities to assess and determine the effects of their decisions or actions, within any oak woodlands containing blue (*Quercus douglasii*), Englemann (*Q. engelmannii*), valley (*Q. lobata*), or coast live oak (*Q. agrifolia*). Avoidance, minimization, and mitigation measures will be proposed to comply with these regulations.

The County of Santa Clara has designated protected trees under the County's Tree Preservation and Removal Ordinance (Section C16). Trees meeting that definition include, "any tree having a main trunk or stem measuring 37.7 inches or greater in circumference…at a height of 4 1/2 feet above ground level…in… parcels zoned 'Hillsides' (three acres or less)."

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Section 2.3.5, Threatened and Endangered Species. Wetlands and other waters are discussed in Section 2.3.2, Wetlands and Other Waters.

AFFECTED ENVIRONMENT

The Caltrans Office of Biological Sciences and Permits prepared a Natural Environment Study (NES) in July 2017. This study documented the potential effects of the proposed alternatives on nearby biological resources. A biological study area (BSA) of 29.8 acres was surveyed in the field and evaluated for potential effects to natural resources from the project. This area encompasses the project footprint, the Caltrans right of way, and additional areas beyond the right of way that would reasonably be either directly or indirectly impacted by the proposed project. A revised NES was prepared in May 2019 to assess the “Hybrid” and ABC Alternatives.

The NES determined that the vegetation is primarily mixed evergreen forest. This is a common vegetation community found in the Santa Cruz Mountains, frequently occupying more inland areas. The BSA is composed of both riparian and upland mixed evergreen forest; it was further classified into specific vegetation alliances using CDFW’s List of Vegetation Alliances and Associations (Vegetation Classification and Mapping Program 2010).

Riparian habitat was determined based on continuous tree canopy cover extending from waterways. Riparian areas serve valuable functions for maintaining the health of a waterway. They not only provide shade to optimize light and temperature conditions for aquatic plants and wildlife, but also can remove excess nutrients and sediments from surface water runoff before it enters the creek. Figure 2.3-1 shows the existing state of the riparian area along Sanborn Creek in the project area, as seen from near the foot of the Saratoga Creek Bridge, looking upslope towards Sanborn Road. The riparian habitat within the project footprint also creates a corridor along which aquatic and other wildlife species can cross below the roadway.

Using the CDFW vegetation classification system, the riparian habitat along Sanborn Creek is composed of California bay (*Umbellularia californica*) riparian forest alliance and white alder (*Alnus rhombifolia*) riparian woodland alliance. The area classified as California bay riparian forest alliance is

primarily composed of California bay, but also includes big-leaf maple (*Acer macrophyllum*), canyon live oak (*Quercus chrysolepis*), and coast live oak. Occasional small stands of mature, bigcone Douglas fir (*Pseudotsuga macrocarpa*) and coastal redwood (*Sequoia sempervirens*) can also be found. Himalayan blackberry (*Rubus armeniacus*) and English ivy (*Hedera helix*) are the dominant understory species. Also present are California swordfern (*Polystichum californicum*), snowberry (*Symphoricarpos albus*), hedge nettle (*Stachys ajugoides*), and western coltsfoot (*Petasites frigidus*). The area classified as white alder riparian woodland alliance is composed mostly of white alder, but also includes big-leaf maple, sycamore (*Platanus sp.*) and English walnut (*Juglans regia*). The understory of this alliance is dominated by English ivy.

Figure 2.3-1: Riparian Area Along Sanborn Creek

The upland habitat within the study area can be classified as California bay forest alliance and canyon live oak forest alliance. The upland California bay forest alliance is similar to the riparian, with a midstory of poison oak (*Toxicodendron diversilobum*) and an understory of California maidenhair fern (*Adiantum jordanii*) and goldenback fern (*Pentagramma triangularis*). The canyon live oak forest alliance is found east of Sanborn Creek. This alliance

is composed mostly of canyon live oak. Also present are madrone (*Arbutus menziesii*), tanoak (*Notholithocarpus densifolia*), big-leaf maple, and small stands of conifer species. The midstory is composed of toyon (*Heteromeles arbutifolia*), wood rose (*Rosa gymnocarpa*), red larkspur (*Delphinium nudicaule*), and white fairy lanterns (*Calochortus albus*).

Figure 2.3-2 (from the NES) shows where each vegetation community is located and how many acres are present within the study area. All of these natural communities have previously been both directly and indirectly impacted by human activities due to their close proximity to SR-9, Sanborn Road, a nearby residence, and adjacent recreational use areas. This has resulted in the introduction of invasive species such as Himalayan blackberry and English ivy, removal of some trees, landscaping, human development, and frequent human use. Despite these existing conditions, the majority of trees in the area are mature growth and the hillside slopes are densely wooded.

The entire BSA can be categorized as oak woodland habitat due to the presence of more than five individual oak trees per acre. Oak woodlands are protected for their ability to sustain abundant wildlife with acorns and shelter, as well as their role in soil development, watershed protection, and preservation of air and water quality.

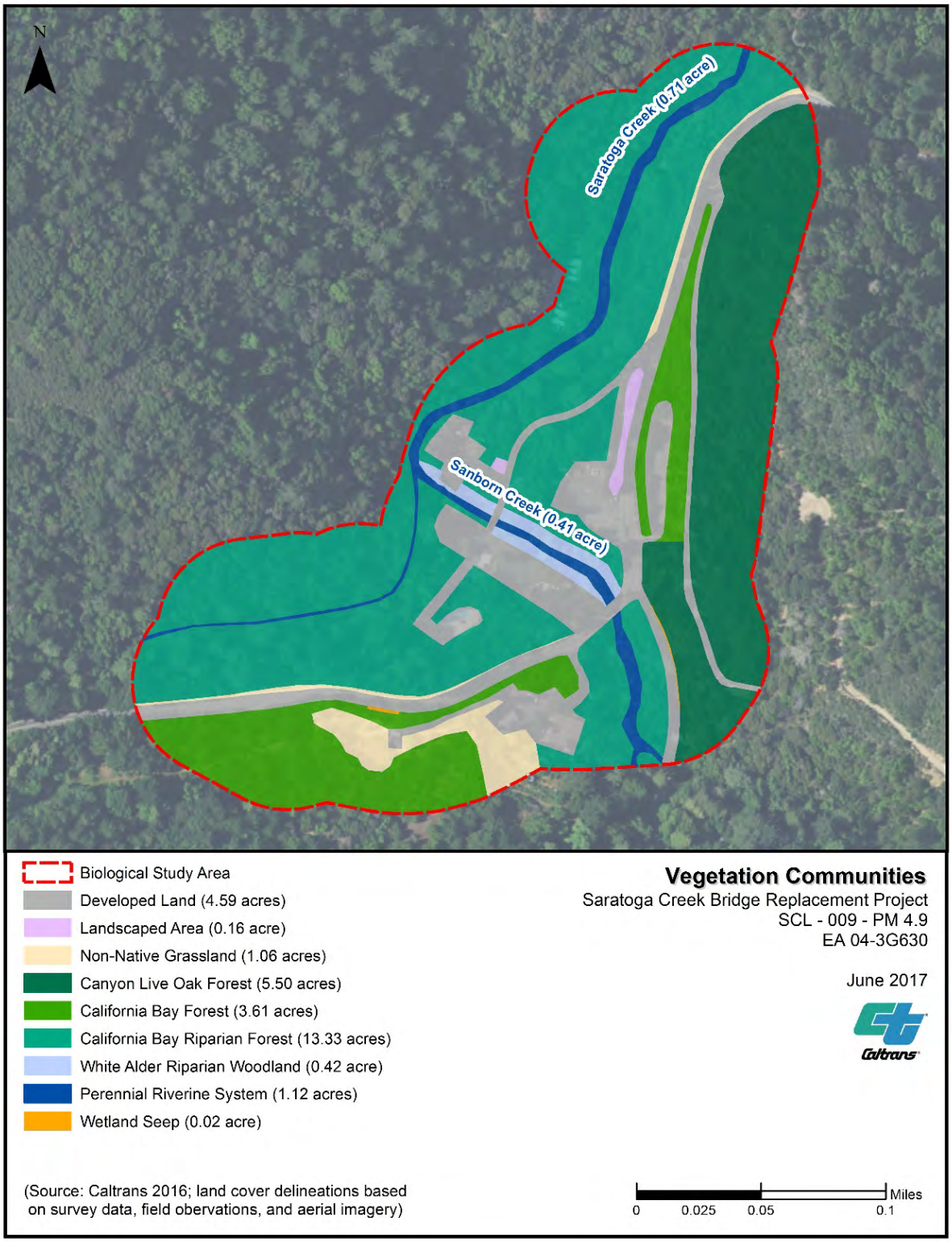


Figure 2.3-2: Vegetation Community Composition of the Project Area (Caltrans 2017)

ENVIRONMENTAL CONSEQUENCES

This discussion divides impacts into two categories: permanent and temporary. Permanent impacts are those in areas covered with new pavement, shoulder backing, or other hardscape, including retaining walls (such as soil-nail walls), or the permanent loss of natural creek bed or bank. Any impacts from temporary structures that are left in place for more than one construction are also considered permanent impacts. Temporary impacts are effects whose changes can be returned to pre-existing or improved conditions within 1 year of ground-breaking construction, during each phase. Areas subject to ongoing operations and maintenance, even if they are restored within 1 year, will also be considered permanent impacts. The assessment assumes that the “Hybrid” Alternative would be constructed in one year and the ABC Alternative would be constructed in two years.

Effects are also described as direct or indirect. Direct effects are caused by the project action and occur at the same time and place as the project action. Indirect effects are those effects that will be caused by the project action and are later in time or farther removed in distance, but are still reasonably foreseeable.

The following text describes project impacts for each alternative followed by summary Tables 2.3-1 and 2.3-2, which provide the acres of potential permanent and temporary impacts on vegetation communities for each alternative. Table 2.3-3 provides an estimate on the number and species of trees that are anticipated for removal for each alternative. This estimate assumes that all of the trees within impact areas would need to be removed. The project development team would work with the contractor to reduce this number.

“Hybrid” Alternative

Permanent Impacts

Potential permanent impacts to natural communities are foreseen as the result of the replacement and installation of RSP, guardrail construction, and shading impacts from widening the bridge structure. The total acreage of permanent impacts would amount to approximately 0.05 acres.

Temporary Impacts

Temporary impacts would result from the temporary construction access road, temporary detour route construction, tree removal, bridge construction, equipment access, the staging/storage of project equipment and materials, and utility relocation. These activities would cause approximately 1.94 acres of temporary impacts to natural communities.

ABC Alternative

Permanent Impacts

Potential permanent impacts are foreseen as the result of tree removal associated with safe worker access, shading impacts from widening the bridge structure, TCAR Option 1 and temporary detour route construction and use for over one construction season, bridge demolition and construction, and equipment access for over one construction season. The total acreage of permanent impacts to natural communities would amount to approximately 1.49 acres.

Temporary Impacts

Temporary impacts would result from utility relocation. These activities would amount to approximately 0.50 acres of impacts resulting from utility relocation and staging activities.

No Build Alternative

No impacts are anticipated from the No Build Alternative. However, if there is a seismic event and the bridge fails, an emergency project to replace the bridge would be done. In this case, a new bridge would be built to replace the existing bridge as quickly as possible in order to resume connectivity along SR-9. The design and potential impacts of the new bridge would likely be similar to the ABC Alternative.

IMPACT SUMMARY

Table 2.3-1: Acres of Permanent Impacts

Vegetation Community/Land Cover Type	"Hybrid" Alternative (Acres)	ABC Alternative (Acres)
Non-Native Grassland	< 0.01	0.05
California Bay Forest Alliance	-	0.05
California Bay Riparian Forest Alliance	0.04	1.25
White Alder Riparian Woodland Alliance	0.01	0.14
Total	**0.05**	**1.49**

Source: Natural Environment Study 2019

Table 2.3-2: Acres of Temporary Impacts

Vegetation Community/ Land Cover Type	"Hybrid" Alternative (Acres)	ABC Alternative (Acres)
Non-Native Grassland	0.07	0.02
Canyon Live Oak Forest Alliance	0.04	0.04
California Bay Forest Alliance	0.46	0.41
California Bay Riparian Forest Alliance	1.24	0.03
White Alder Riparian Woodland Alliance	0.13	-
Total	**1.94**	**0.50**

Source: Natural Environment Study 2019

Table 2.3-3: Tree Removal Estimates

Common Name	Scientific Name	Potential # of Trees Removed
Acacia	*Acacia dealbata*	1
bigleaf maple	*Acer macrophyllum*	98
white alder	*Alnus rhombifolia*	7
Pacific madrone	*Arbutus menziesii*	2
incense cedar	*Calocedrus decurrens*	6
cotoneaster sp.	*Cotoneaster Sp.*	1
English walnut	*Juglans regia*	4
apple tree	*Malus pumila*	1
tanoak	*Notholithocarpus densiflora*	4
knobcone pine	*Pinus attenuate*	4
California sycamore	*Platanus racemosa*	2
bigcone Douglas-fir	*Pseudotsuga macrocarpa*	1
Douglas-fir	*Pseudotsuga menziesii*	3
coast live oak	*Quercus agrifolia*	34
canyon live oak	*Quercus chrysolepis*	13
Coast redwood	*Sequoia sempervirens*	15
California bay	*Umbellularia californica*	148
Total:		**344**

Source: Natural Environmental Study 2019

PROJECT FEATURES

The following project features, previously described in Chapter 1, reduce the above-mentioned potential permanent and temporary impacts for all build alternatives:

1. **Vegetation and Tree Removal.** Vegetation and tree removal would be minimized as much as practicable to construct the project. This would minimize impacts to the availability of habitat for wildlife species and the riparian area. Vegetation would only be removed in the project area as needed to provide access and necessary workspace. Where possible, vegetation would be cut above the soil level to promote the regrowth of existing plants following construction. This would limit the amount of vegetation removed, particularly the number of trees removed. Allowing the possibility of cut trees to resprout, promotes the distribution of local genetic strains of native species in the region.

2. **Replacement Planting.** All areas where vegetation is removed, with the exception of areas covered in new hardscape, will be replanted.

3. **Work Areas.** Staging, storage, and parking areas would be located on paved or graveled surfaces outside of any designated ESAs, as specified by the project biologist. This would avoid construction impacts to natural communities.

4. **Mark Work Areas and Access Routes.** Routes and boundaries of roadwork would be clearly marked before the start of construction or grading. This would help minimize the extent of construction impacts as much as possible to ensure that unnecessary ground and habitat disturbance does not occur.

5. **Designated Construction Area.** Construction will only be allowed within the designated construction area.

6. **Topsoil Re-use.** To the maximum extent feasible, native topsoil will be removed and stored in a suitable location until the project is completed and restoration efforts begin. This will occur in areas where soil disturbance is necessary for construction. The topsoil will be used to help restore temporarily disturbed areas to their original state. These areas will then be reseeded with native grasses, shrubs, and trees, as appropriate, based on the local species composition and available planting space. This will allow the original natural community to be restored as soon as possible once construction is completed.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The NES proposes the following additional measures to address potential adverse impacts to natural communities.

AMM BIO-1: ESA fencing. The environmentally sensitive area (including the riparian habitat) outside of the active construction area will be clearly delineated as an ESA and protected with high visibility fencing. This is included as a requirement in the Biological Opinion received from USFWS discussed later in Section 2.3.5 Threatened and Endangered Species.

AMM BIO-2: Tree removal tally. Trees will be counted, measured, and recorded as they are trimmed or removed to determine the actual number of trimmed and removed trees.

AMM BIO-3: Tree replacement. Caltrans proposes to replace trees onsite per anticipated requirements by CDFW, USFWS, and RWQCB. A CDFW approved offsite location will be used if not all of the replacement trees are able to fit onsite. The tree replacement ratios will be 5:1 for all oak species, 3:1 for other native California tree species, and 1:1 for non-native tree species. However, non-native tree species will be replanted with native tree species. The replanting will be done onsite within one year of phased initial construction ground disturbance.

AMM BIO-4: Riparian habitat replacement ratio. Caltrans will work with CDFW to offset potential impacts on riparian habitat that falls under CDFW jurisdiction. Caltrans proposes to restore acres of riparian habitat onsite at a 1:1 ratio for permanent and temporary riparian impacts. Replacement of lost riparian habitat in CDFW jurisdiction will be done at a 3:1 ratio offsite if there is not enough room onsite for all of the required restoration. This will be achieved by acquiring a conservation easement, conservation covenant, or preservation of similar habitat.

2.3.2 Wetlands and Other Waters

REGULATORY SETTING

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as CWA (33 USC 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including

wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the USACE with oversight by the U.S. EPA.

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 CFR Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The EO for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternatives Finding must be made.

At the state level, wetlands and waters are regulated primarily by the SWRCB, the RWQCBs and the CDFW. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by WDRs and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Section 2.2.1 Water Quality and Stormwater Runoff for more details.

AFFECTED ENVIRONMENT

The Caltrans Office of Biological Sciences and Permits' NES (July 2017) also assessed potential impacts to wetlands and other waters. A field delineation was performed on June 6, 2016, to identify potential jurisdictional wetlands and waters of the U.S. that would be subject to regulation under Sections 401

and 404 of the CWA. At the time of this document's preparation, the preliminary jurisdictional delineation conducted for the project has not been verified by USACE; results are subject to change based on USACE review. The jurisdictional survey identified three jurisdictional features within the BSA: Sanborn Creek, Saratoga Creek, and a seep (referred to as Seep A). The locations of these features are shown in Figure 2.3-3, taken from the NES. Seep B is a second seep that was also identified during the survey. It was determined not to be a jurisdictional feature and is, therefore, not included in the impact analysis.

Saratoga Creek is an upper perennial riverine system that originates in the northeastern slopes of the Santa Cruz Mountains and flows in a generally northeasterly direction to connect with Guadalupe Slough and, eventually, South San Francisco Bay. The creek traverses through a variety of landscape features, including the forested Santa Cruz Mountains, the low-density residential foothills of the City of Saratoga, the alluvial plains of Santa Clara Valley, and the more urban landscape of the cities of San Jose and Santa Clara. Saratoga Creek is considered a jurisdictional waterbody by USACE because it has water most of the year and is connected to a navigable water body[20]. Further discussion of the creek can be found in Section 2.2.1, Water Quality and Stormwater Runoff. Sanborn Creek (Figure 2.3-4) is a tributary of Saratoga Creek, and is also considered jurisdictional.

[20] A navigable water body is defined as, "…those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity." (CFR, Title 33, Section 329.4).

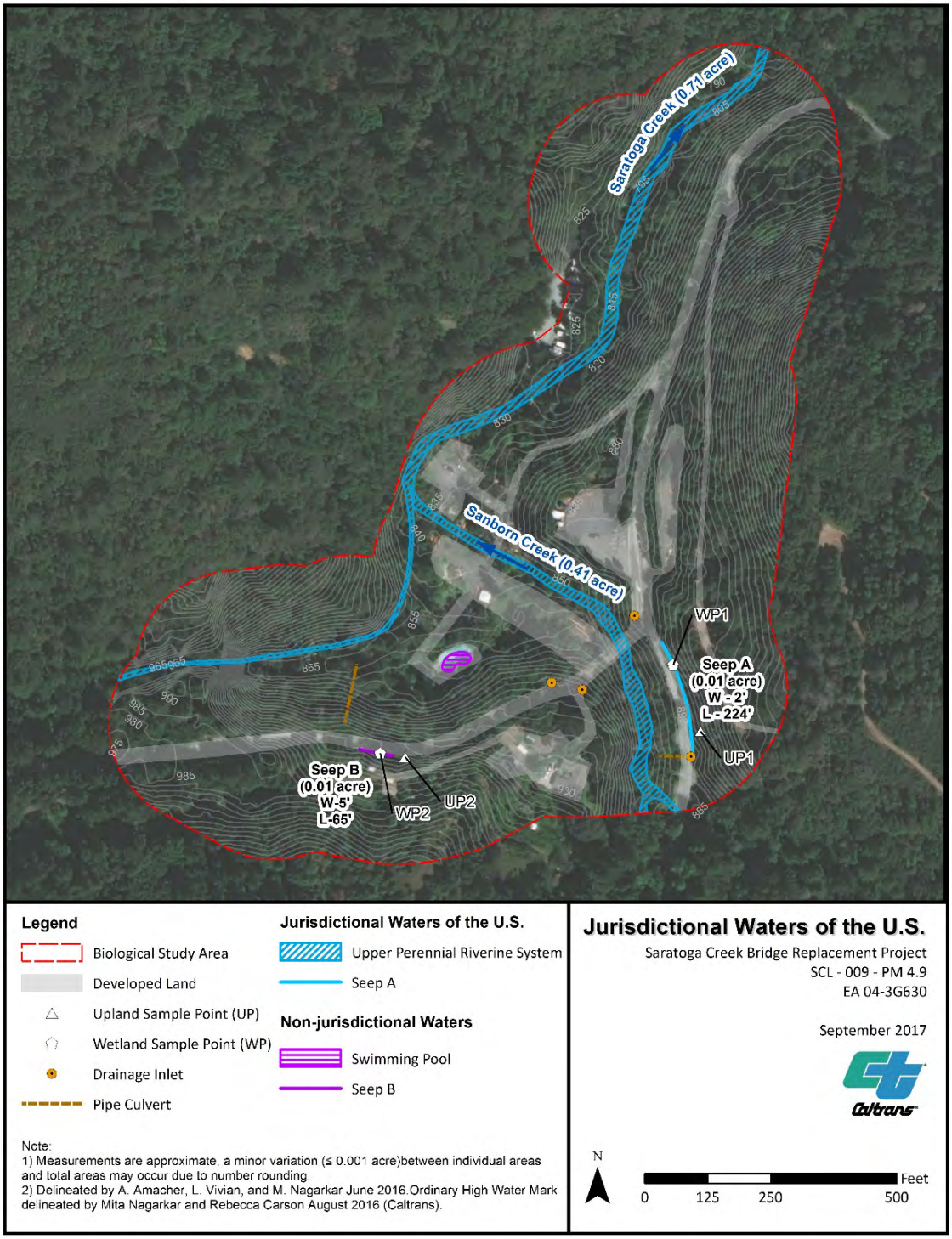


Figure 2.3-3: Jurisdictional Waters of the U.S. within the BSA

Figure 2.3-4: Sanborn Creek Beneath the Existing Saratoga Creek Bridge

Two seeps, Seeps A and B, were identified within the study area. Seep A is approximately 224 feet long by 2 feet wide (visible width) and is located at the base of the road-cut above Sanborn Road (Figure 2.3-5). This seep is not classified as a jurisdictional wetland because it does not have water-loving plant species or typical wetland soils (two of the three criteria for being classified as a jurisdictional wetland). However, it is classified as a jurisdictional "other waters of the U.S."[21] because it has wetland hydrology indicators (surface water, soil saturation, and a water table at 6 inches in depth) and is directly connected to a jurisdictional water (Sanborn Creek) through a pipe culvert.

Figure 2.3-5: Seep A on Road-cut Above Sanborn Road

[21] "Other Waters of the U.S." is defined as, "All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (a) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (b) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (c) Which are used or could be used for industrial purposes by industries in interstate commerce…" (CFR, Title 40, Section 230.3(s)).

Seep B is approximately 5 feet wide and 65 feet long. It is located along the southern road-cut upslope of SR-9. This seep does have typical wetland plant species and wetland hydrology indicators. However, it does not have typical wetland soils and does not connect with any other jurisdictional waters, such as Sanborn Creek. Seep B was determined not to be jurisdictional under these conditions.

ENVIRONMENTAL CONSEQUENCES

Both project build alternatives would have similar impacts to Sanborn Creek due to the creek's proximity to the project area. There are no anticipated impacts from the No Build Alternative.

"Hybrid" Alternative

Permanent Impacts

Potential permanent impacts are foreseen as the result of the installation of RSP around the existing central pier located on the creek bank. This will result in 0.1 acres of permanent impact to Sanborn Creek.

Temporary Impacts

It is anticipated that 0.18 acres of Sanborn Creek would undergo temporary impacts due to the use of a temporary creek diversion system and/or temporary creek crossing. This diversion is being proposed to protect the creek from falling debris during construction. It would be in place from June through October, during the dry season, while work is allowed in the creek bed and banks. However, during this time it would act as a temporary dispersal barrier to aquatic species during construction.

Temporary impacts may also occur to Seep A due to disturbance by heavy construction equipment on Sanborn Road near the project area. This is expected to be minimal and result in less than 0.01 acres of temporary impact.

Vegetation clearing could cause an increase in the volume of stormwater runoff and creek bank erosion, as described in Section 2.3.1, Natural Communities. The replacement planting and standard erosion control measures would avoid these issues.

ABC Alternative

Permanent Impacts

There are no anticipated permanent impacts to jurisdictional features from the ABC Alternative. This assumes that the bridge type for this alternative would be a single span bridge that would not have a central pier.

Temporary Impacts

It is anticipated that 0.19 acres of Sanborn Creek would undergo temporary impacts due to the use of a temporary creek diversion system and/or temporary creek crossing. This diversion is being proposed to protect the creek from falling debris during construction. It would be in place from June through October, while work is allowed in the creek bed and banks. However, during this time it would act as a temporary dispersal barrier to aquatic species during construction.

Temporary impacts may also occur to Seep A due to disturbance by heavy construction equipment on Sanborn Road near the project area. This is expected to be minimal and result in less than 0.01 acres of temporary impact.

Vegetation clearing could cause an increase in the volume of stormwater runoff and creek bank erosion, as described in Section 2.3.1, Natural Communities. The replacement planting and standard erosion control measures would avoid these issues.

No Build Alternative

There are no anticipated impacts from the No Build Alternative. When the need for a new bridge is identified from inspection results or a seismic event that results in bridge instability, there will be, in turn, resulting bridge realignment or replacement impacts similar to those described for the ABC Alternative.

IMPACT SUMMARY

Table 2.3-4 below summarizes the potential permanent and temporary impacts to jurisdictional features from the build alternatives. Saratoga Creek is not anticipated to be directly affected by any of the project alternatives.

Table 2.3-4: Impacts to Jurisdictional Features

Feature	"Hybrid" Alternative		ABC Alternative	
	Permanent (Acres)	Temporary (Acres)	Permanent (Acres)	Temporary (Acres)
Sanborn Creek *Waters of the U.S.*	0.01	0.18	-	0.19
Seep A *Other Water of the U.S.*	-	<0.01	-	<0.01
Total	**0.01**	**0.18**	**-**	**0.19**

Source: Natural Environment Study 2019

PROJECT FEATURES

Project features that would reduce general construction impacts for both build alternatives include the seasonal restriction and vegetation removal minimization described in Section 2.3.1, Natural Communities, toxic material control and spill prevention described in Section 2.2.1 Water Quality and Stormwater Runoff, AMMs in Section 2.3.5 Threatened and Endangered Species, and the following features:

1. **Maintenance.** All equipment would be properly maintained and free of leaks. Servicing of vehicles and construction equipment, including fueling, cleaning, and maintenance, would occur at least 100 feet from any hydrologic features, unless the feature is at an existing gas station. This would avoid potential pollutants from machinery from entering Sanborn Creek from the project area.

2. **Seasonal Work in Creek.** As described in Section 2.3.1, Natural Communities, except for limited vegetation cutting (necessary to minimize effects to nesting birds) work in the creek bed and banks would be limited to the dry season, between June 15 and October 15. This would avoid and minimize impacts to Sanborn Creek from the installation of the RSP and the use of the temporary creek diversion system and/or temporary creek crossing.

3. **Rain events.** The Biological Opinion from USFWS requires that no work occur during, or within, 24 hours following a rain event. Construction work may continue during this time only with USFWS/CDFW approval and would be considered on a case-by-case basis. All active construction areas, or areas slated to begin construction within 72 hours, will be inspected for erosion. This would reduce the potential for soil erosion and other construction contaminants from entering into Sanborn Creek with stormwater runoff.

4. **Creek Restoration.** The creek bed and banks will be restored as close to preconstruction contours and conditions as possible, after the completion of all construction activities.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The measures listed in Section 2.2.1 Water Quality and Stormwater Runoff would also apply to protecting wetlands and other waters described here. The following additional measures will be implemented to address potential adverse impacts to wetlands and other waters.

AMM BIO-5: Creek Diversion/Temporary Creek Crossing. A creek diversion system will be used to keep construction debris from entering Sanborn Creek. Caltrans will submit the plans for the water diversion to USFWS and CDFW for review.

2.3.3 Plant Species

REGULATORY SETTING

The USFWS and CDFW have regulatory responsibility for the protection of special status plant species. “Special status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the FESA and/or CESA. Please see the Threatened and Endangered Species section, Section 2.3.5, in this document for detailed information about these species.

This section of the document discusses all other special status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 USC Section 1531, et seq. See also 50 CFR. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and CEQA, found at California Public Resources Code, Sections 21000-21177.

AFFECTED ENVIRONMENT

Caltrans Office of Biological Sciences and Permits' NES (July 2017) assessed potential impacts to special status-plant species. Initially, 57 special status plant species were reviewed for the potential to occur within the study area. Of these, 13 rare plant species (California Rare Plant Ranks 1A and 1B), and one federally listed species that is discussed in Section 2.3.5 Threatened and Endangered Species, have some potential to occur within the study area based habitat availability and known ranges. See Table 2.3-5 for information on these plant species.

Table 2.3-5: Plant Species

Common Name	Scientific Name	Status	Rare Plant Rank	General Habitat Description	Habitat Presence/ Absence	Rationale
Anderson's manzanita	*Arctostaphylos andersonii*	None	1B.2	Broad-leaved upland forest, chaparral, north coast coniferous forest. Occurs in open sites, redwood forest. Elevation: 196-2,493 feet.	HP	Potential to occur. Habitat is present in the BSA. The closest CNDDB occurrence is approximately 4.5 miles away.
arcuate bush-mallow	*Malacothamnus arcuatus*	None	1B.2	Chaparral, cismontane woodland. Gravelly alluvium. Elevation: 3-2,411 feet.	HP	Limited potential to occur. Habitat present in the BSA. Closest CNDDB occurrences approximately 2.6 miles northeast (possibly extirpated), and 4 miles southeast (last seen in 1899).
bent-flowered fiddleneck	*Amsinckia lunaris*	None	1B.2	Cismontane woodland, valley and foothill grassland. Elevation: 164-1,640 feet.	HP	Potential to occur. Habitat present in the BSA. The closest CNDDB occurrence approximately 13 miles southwest.

Table 2.3-5: Plant Species

Common Name	Scientific Name	Status	Rare Plant Rank	General Habitat Description	Habitat Presence/ Absence	Rationale
Dudley's lousewort	*Pedicularis dudleyi*	None	1B.2	Chaparral, north coast coniferous forest, valley and foothill grassland. Occurs in deep shady woods of older coast redwood forests; also in maritime chaparral. Elevation: 196-2,952 feet.	HP	Limited potential to occur. Suitable habitat is present in the BSA; however, redwoods are not dominant species within the project footprint. The closest CNDDB occurrences are approximately 8 miles away.
Kellman's bristle moss	*Orthotrichum kellmanii*	None	1B.2	Chaparral, cismontane woodland. Occupies sandstone outcrops with high calcium concentrations from eroded boulders out of non-calcareous sandstone bedrock. Rock outcrops in small openings within dense chaparral with overstory of scattered *Pinus attenuata*. Elevation: 1,125-2,247 feet.	HP	Limited potential to occur. Sandstone present in the BSA. The closest CNDDB occurrence is approximately 9 miles west in Big Basin Redwoods State Park.

Table 2.3-5: Plant Species

Common Name	Scientific Name	Status	Rare Plant Rank	General Habitat Description	Habitat Presence/ Absence	Rationale
Kings Mountain manzanita	*Arctostaphylos regismontana*	None	1B.2	Broad-leaved upland forest, chaparral, north coast coniferous forest. Granitic or sandstone outcrops. Elevation: 1,000-2,395 feet.	HP	Potential to occur. Habitat is present in the BSA. The closest CNDDB occurrence (presumed extant) is approximately 4.7 miles northwest.
Legenere	*Legenere limosa*	None	1B.1	Found in beds of vernal pools. Elevation: 3-2,887 feet.	HP	Limited potential to occur. No vernal pool habitat in the BSA but roadside seeps present. Soils in the roadside seeps unlikely to support rare plant species. The closest CNDDB occurrence is approximately 10 miles northwest.

Table 2.3-5: Plant Species

Common Name	Scientific Name	Status	Rare Plant Rank	General Habitat Description	Habitat Presence/ Absence	Rationale
Loma Prieta hoita	*Hoita strobilina*	None	1B.1	Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. Elevation: 196-3,198 feet.	HP	Limited potential to occur. Riparian woodland habitat is present within the BSA; however, serpentine soils are not present. The closest CNDDB occurrence is approximately 1.7 miles east in downtown Saratoga, but dates back to a 1913 collection (presumed extant). Additional CNDDB occurrences are located 5 miles southeast.
marsh microseris	*Microseris paludosa*	None	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley, and foothill grassland. Elevation: 16-984 feet.	HP	Limited potential to occur in the BSA. The closest CNDDB occurrence is approximately 16 miles south.

Table 2.3-5: Plant Species

Common Name	Scientific Name	Status	Rare Plant Rank	General Habitat Description	Habitat Presence/ Absence	Rationale
robust spineflower	*Chorizanthe robusta var. robusta*	FE	1B.1	Cismontane woodland (openings), coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. Elevation: 29-803 feet.	HP	No potential to occur. Cismontane woodland present in the BSA, but site is not ideal due to numerous invasive plant species and a lack of the necessary sandy soils. The closest CNDDB occurrence is approximately 4 miles west (possibly extirpated). They were not found in the two years of plant surveys performed.
Santa Cruz clover	*Trifolium buckwestiorum*	None	1B.1	Coastal prairie, broad-leaved upland forest, cismontane woodland. Occurs in moist grassland. Gravelly margins. Elevation: 344-2,001 feet.	HP	Limited potential to occur. Woodland habitat and gravely margins are present onsite, although coastal prairie is not. The closest CNDDB occurrences are approximately 15 miles southwest.

Table 2.3-5: Plant Species

Common Name	Scientific Name	Status	Rare Plant Rank	General Habitat Description	Habitat Presence/ Absence	Rationale
western leatherwood	*Dirca occidentalis*	None	1B.2	Broad-leaved upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. Occurs on brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. Elevation: 82-1,394 feet.	HP	Potential to occur. Suitable habitat is present in the BSA. The closest CNDDB occurrences are approximately 3 miles north in Stevens Creek County Park.
white-flowered rein orchid	*Piperia candida*	None	1B.2	North coast coniferous forest, lower montane coniferous forest, broad-leaved upland forest. Sometimes occurs on serpentine. Occurs in forest duff, mossy banks, rock outcrops, and muskeg. Elevation: 147-5,298 feet.	HP	Limited potential to occur. Suitable habitat is present in the BSA, although no serpentine soils occur. The closest CNDDB occurrence is approximately 8 miles west.

Table 2.3-5: Plant Species

Common Name	Scientific Name	Status	Rare Plant Rank	General Habitat Description	Habitat Presence/ Absence	Rationale
woodland woolly threads	*Monolopia gracilens*	None	1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broad-leaved upland forest, north coast coniferous forest. Occupies grassy sites, in openings; sandy to rocky soils. Often seen on serpentine soils after burns, but may have only weak affinity to serpentine. Elevation: 328-3,937 feet.	HP	Potential to occur in the BSA. The closest two CNDDB occurrences are approximately 2 and 3 miles away.

Key:

HP	Habitat Present
CNDDB	California Natural Diversity Database
FE	Federal Endangered
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B.1	Plants Seriously Threatened in California, but more common elsewhere
1B.2	Plants Moderately Threatened in California, but more common elsewhere

Plant surveys of the project area were done for 2 years in a row, during the spring and fall blooming seasons, to determine if there were any special status plant species within the BSA. These surveys followed the California Native Plant Society botanical survey guidelines (California Native Plant Society 2001); CDFW protocols for surveying special status plants (California Department of Fish and Game 2008); and USFWS botanical survey guidelines for federally listed, proposed, and candidate plants (Cypher 2002). Only one special status species, Santa Clara red ribbons (*Clarkia concinna ssp. automixa*), was discovered; this species is included in the CNPS Inventory of Rare and Endangered Plants, on List 4.3. This listing means that the species is only found in a few places, but is not considered particularly threatened in California.

Santa Clara red ribbon is an annual herb, found primarily in chaparral or cismontane woodland, at elevations between 300 and 4,900 feet. Figure 2.3-6 shows this plant in bloom, in a photo taken near the project location by a Caltrans biologist. This subspecies is limited to Santa Clara and southern Alameda counties. It occurs in mesic, shaded oak woodlands, such as those found on the project site. There is approximately 0.02 acres of Santa Clara red ribbons just outside of the limits of the project footprint, east of the Saratoga Creek Bridge.

Figure 2.3-6: Photo of Santa Clara Red Ribbons near project site.

ENVIRONMENTAL CONSEQUENCES

There are no anticipated impacts from any of the project alternatives with the application of the following project feature.

PROJECT FEATURES

1. **Preconstruction Surveys.** A Caltrans biologist will perform preconstruction surveys for special status species. These surveys would identify locations where special status plants would need to be protected through designation as ESAs. The ESA boundaries would then be delineated with temporary, high-visibility fencing. This would ensure that no construction personnel or activities are allowed in the area to impact the special status plant species. If a special status species is found within the project area, a buffer will be established for avoidance. Species-specific measures may be taken to protect the existing seed bank if Santa Clara red ribbons are found, if their footprint is not avoidable, and if removal is required. This may include topsoil salvage, seed collection, and respreading to suitable areas within the BSA.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The measures mentioned in Sections 2.1.4 Visual/Aesthetics and 2.3.1 Natural Communities would also apply to protecting plant species.

2.3.4 Animal Species

REGULATORY SETTING

Many state and federal laws regulate impacts to wildlife. USFWS, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), and CDFW are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the FESA or CESA. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species, Section 2.3.5. All other special status animal species with the potential to occur in the study area are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- NEPA
- Migratory Bird Treaty Act (MBTA)
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- CEQA
- Sections 1600 – 1603 of CFGC
- Sections 4150 and 4152 of CFGC
- Section 3503 of CFGC

AFFECTED ENVIRONMENT

Caltrans' NES (Office of Biological Sciences and Permits 2017), and subsequent reassessment (Office of Biological Sciences and Permits 2019), assessed potential impacts to special status wildlife species. Initially, 57 special status wildlife species were considered for their potential to occur within the study area. Only one of these species was listed as protected under FESA and is discussed further in Section 2.3.5, Threatened and Endangered Species. Nineteen special status species were also listed and have the potential to occur in the study area. The potential presence of special status species was determined based on the presence of species habitat availability for each part of their life cycle, the species' historical range, documented occurrences, and ecological factors that may inhibit dispersal, immigration, and establishment of a population in the BSA. Table 2.3-6 lists the special status animal species that were identified in the NES as having a potential to be in the project area and their listing status

A Biological Assessment was submitted to USFWS on February 23, 2018 with the project's proposed findings of "may affect and likely to adversely affect" for California red-legged frog and provided proposed avoidance, minimization, and mitigation measures. It was determined there will be no effect to the remainder of the federally listed species on the project's official species lists. USFWS issued a BO on May 4, 2018 in response to the Biological Assessment. A copy of the BO has been included in Appendix I, U.S. Fish and Wildlife Service Biological Opinion..

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
California red-legged frog	*Rana draytonii*	FT, SSC	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Breeding habitat is in permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burros or other moist refuges for estivation when the wetlands are dry	HP	Potential to occur. Upland and dispersal habitat present in the BSA. One CNDDB occurrence approximately 1.4 miles away in Sanborn Creek downstream from the BSA and a second occurrence 1.4 miles north of the site.
Central California roach	*Lavinia symmetricus*	SSC	Capable of adapting to varying habitats, from coastal streams to mountain foothill streams. They are predominately found in small warm streams but can thrive in larger colder streams with diverse conditions.	HP	Potential to occur. According to the University of California Davis PISCES database, Sanborn Creek is within the current range for this species.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
riffle sculpin	*Cottus gulosus*	SSC	Found in headwater streams with cold water and rocky or gravelly substrate. They prefer permanent streams where the water does not exceed 79°F, and where ample flow keeps the dissolved oxygen level near saturation. Riffle sculpins may occupy riffles or pools, though they tend to favor areas that have adequate cover in the form of rocks, logs, or overhanging banks.	HP	Potential to occur. According to PISCES, Sanborn Creek is within the current range for this species. No CNDDB occurrence records.
California giant salamander	*Dicamptodon ensatus*	SSC	Occurs in wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages.	HP	Potential to occur. Habitat present in the BSA. A CNDDB occurrence overlaps the project area; and 6 occurrences have been recorded within 3 miles of the site.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
foothill yellow-legged frog	*Rana boylii*	SCT	Frequents partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats, including forests, chaparral, and woodlands. Need at least some cobble-sized substrate for egg laying.	HP	Limited potential to occur. Sanborn and Saratoga Creeks ostensibly provide suitable habitat for this species. However, it has not been detected in the watershed or in adjacent watersheds (Stevens and Los Gatos Creeks) in recent decades despite considerable survey effort. There are several CNDDB occurrences within five miles of the project area, but these date back to the 1950s or earlier and are presumed extirpated.
Santa Cruz black salamander	*Aneides flavipunctatus niger*	SSC	Mixed deciduous and coniferous woodlands, and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	HP	Potential to occur. Habitat is present in the study area. There are numerous CNDDB occurrences win the vicinity of the project area.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
western pond turtle	*Emys marmorata*	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 kilometer from water for egg-laying.	HP	Limited potential to occur. Basking sites, emergent aquatic vegetation, and grassy open fields may be present along Saratoga Creek, but not Sanborn Creek. Suitable upland habitat may be present in the study area. The closest CNDDB occurrence is approximately 2 miles south.
American peregrine falcon	*Falco peregrinus anatum*	SFP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	HP (foraging)	Potential to pass through while foraging. Sightings recorded at Castle Rock State Park to the west. No potential to nest onsite.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
bald eagle	*Haliaeetus leucocephalus*	SFP	Requires large, old-growth trees or snags in remote, mixed stands near water. Habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.	HP (foraging)	Potential to migrate or pass through while foraging. Sightings recorded at Sanborn County Park. No potential to nest onsite.
golden eagle	*Aquila chrysaetos*	SFP	Uses rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	HP (foraging)	Potential migrate through site or forage nearby. No suitable nesting habitat is present in the study area. Sightings have been recorded nearby, at Sanborn County Park.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
long-eared owl	*Asio otus*	SSC	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land with mice and the presence of old nests of crows, hawks, or magpies for breeding.	HP	Limited potential to occur. Habitat present; however, open lands productive of mice may be limited near the project site. The closest CNDDB occurrence is approximately 6 miles northwest.
olive-sided flycatcher	*Contopus cooperi*	SSC	Nesting habitats are mixed conifer, montane hardwood conifer, Douglas fir, redwood, red fir and lodgepole pine. Most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes, or other open terrain.	HP	Limited potential to occur. Montane hardwood-conifer woodland is disturbed in the study area with limited connectivity to open terrain. One unprocessed CNDDB occurrence in the Mindego Hill Quadrangle.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
purple martin	*Progne subis*	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	HP	Potential to occur. Habitat is present in the study area. The closest CNDDB occurrence is approximately 11 miles southeast.
Vaux's swift	*Chaetura vauxi*	SSC	Redwood, Douglas fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	HP	Potential to occur. Suitable habitat is present in the study area, although a colony was not observed onsite. One unprocessed CNDDB occurrence in the Mindego Hill Quad.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
white-tailed kite	*Elanus leucurus*	SFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Needs open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	HP	Limited potential to occur. The closest CNDDB occurrence is 4.8 miles north in Cupertino.
yellow warbler	*Setophaga petechia*	SSC	Riparian plant associations near water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants, including cottonwoods, sycamores, ash, and alders.	HP	Potential to occur. Habitat present in the study area. One unprocessed CNDDB occurrence in the San Jose West Quad.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
pallid bat	*Antrozous pallidus*	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	HP	Limited potential to occur. Habitat present in the study area; however, it is not open or dry and is fairly disturbed. The closest CNDDB occurrence is approximately 10 miles east.
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC	Forest habitats of moderate canopy and moderate to dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	HP	Potential to occur. Habitat present in the study area. Potentially active nests observed onsite.

Table 2.3-6: Wildlife Species Potentially Present in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Presence/ Absence	Rationale
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Extremely sensitive to human disturbance.	HP	Potential to occur. Habitat present in the study area; however, is fairly disturbed. The closest CNDDB occurrence is approximately 4 miles north.
western red bat	*Lasiurus blossevillii*	SSC	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	HP	Potential to occur. Habitat present in the BSA. One unprocessed CNDDB occurrence in the Cupertino Quad.

Key:

FT	Federally Threatened
SE	State Endangered
ST	State Threatened
SCT	State Candidate Threatened
SFP	State Fully Protected
SSC	State Species of Special Concern
HP	Habitat Present

No special status species were observed during field visits. The following common wildlife species were observed within the study area: western California slender salamander (*Batrachoseps attenuates*), California forest scorpion (*Uroctonus mordax*), band-tailed pigeon (*Patagioenas fasciata*), and American robin (*Turdus migratorius*).

ENVIRONMENTAL CONSEQUENCES

"HYBRID" ALTERNATIVE

Permanent Impacts

The placement of RSP in Sanborn Creek and removal of the shade trees over Sanborn Creek in the project area would cause approximately 0.19 acres of permanent impacts to potentially suitable aquatic habitat for California giant salamander, Santa Cruz black salamander, California roach, and riffle sculpin. The RSP would permanently impact 0.01 acre of aquatic dispersal habitat for the western pond turtle. RSP installation, guardrail construction, and bridge deck widening would permanently impact 0.5 acres of potential upland habitat for both salamanders.

Temporary Impacts

The construction of the bridge, construction of the temporary detour road, TCAR Option 1, vegetation removal, and utility relocation would cause approximately 1.94 acres of temporary impacts to potential upland habitat for California giant salamander and Santa Cruz black salamander. The creek diversion would cause 0.18 acre of temporary impacts to aquatic dispersal habitat of western pond turtle.

ABC Alternative

Permanent Impacts

The removal of the shade trees over Sanborn Creek in the project area would cause approximately 0.19 acres of permanent impacts to potentially suitable aquatic habitat for California giant salamander, Santa Cruz black salamander, California roach, and riffle sculpin.

Approximately 1.49 acres of permanent impacts to potential upland habitat for both salamanders may occur due to bridge construction/access, construction and use of the temporary detour road, construction and use of TCAR Option 1, and vegetation removal. These activities are considered permanent

impacts because the construction timeline for the ABC Alternative has the potential to be more than 1 year.

Temporary Impacts

Utility relocation would cause approximately 0.50 acres of temporary impacts to potential upland habitat for California giant salamander and Santa Cruz black salamander. The creek diversion would cause 0.18 acres of temporary impacts to aquatic dispersal habitat of western pond turtle.

No Build Alternative

There are no anticipated impacts from the No Build Alternative. When the need for a new bridge is identified from inspection results or a seismic event that results in bridge instability, there will be replacement impacts similar to those described for the ABC alternative.

All Build Alternatives

Both project build alternatives require soil disturbance, vegetation removal, use of heavy equipment, and night lighting for general construction activities, the relocation of utility poles, construction of the temporary access roads, expansion and/or alteration of the bridge, temporary road detours, and any onsite replacement planting. These activities have the potential to impact the health and well-being of all the special status species listed above.

The use of night lighting may disrupt species sleeping and foraging patterns, or draw them towards the construction site.

The use of heavy equipment has the potential to crush any special status species present within or dispersing through the project footprint during construction.

Ground disturbance and vegetation removal have the potential to directly impact nesting migratory bird species, roosting bats, San Francisco dusky-footed woodrat, and all special status species present in the area at the time of the clearing. Impacts from vegetation removal would be avoided/minimized utilizing the proposed AMM BIO-6 Bat Breeding Season and Roosting Sites (see below).

Both project alternatives would require a temporary creek diversion system in Sanborn Creek. Special status species that utilize aquatic or riparian habitat

at some point during their lifecycle (e.g. western pond turtle, salamanders, and fish) have potential to be directly and adversely impacted by these construction activities.

The removal of shade trees over Sanborn Creek will likely lead to warmer water temperatures in Sanborn Creek, and could also potentially adversely impact salamander and fish species. Due to the proximity and availability of suitable aquatic and riparian habitat adjacent to the project footprint, the project is likely to result only in minor indirect impacts to the species (e.g., temporary shifts in foraging patterns or territories, noise or light pollution). However, the removal of shading riparian trees may improve certain habitat conditions for western pond turtle until replanted trees are old enough to provide shade cover once more. This is because western pond turtle may benefit from warmer water temperatures and sunny creek banks for certain stages in their lifecycle.

The construction of the temporary road detour to the north may have both direct and indirect impacts on species. Potential vibration impacts from drilling piles may occur to fish species, but would be avoided/minimized utilizing the proposed AMM BIO-7: fish species relocation plan (see below).

Construction could result in indirect effects on habitat from decreased water quality if soils enter nearby water features. Construction activities may also result in the introduction of chemical contaminants to a work site or staging area, such as oil or toxic chemicals leaking from construction equipment. These effects are discussed further in Section 2.2.1 Water Quality and Stormwater Runoff.

PROJECT FEATURES

The project includes the following standard Caltrans' project features to reduce impacts to animal species:

1. **Worker Environmental Awareness Training.** The Biological Opinion from USFWS requires that construction personnel attend a mandatory environmental education program delivered by the USFWS-approved biological monitor prior to taking part in site construction, including vegetation clearing. Construction personnel will attend a mandatory environmental education program, to be delivered by a qualified biological monitor, prior to beginning construction. This program will provide

information on special status species and the employees' personal responsibility in avoiding impacts to species during construction. A factsheet on protected species will be provided to construction personnel, along with compliance reminders and relevant contact information. Documentation of the training and sign-in sheets will be kept on file and available upon request. This will help construction personnel comply with the protocol to protect special status species.

2. **Nesting Bird Surveys.** Nesting bird surveys would be performed during the bird nesting season, between February 1 and September 30, no more than 72 hours prior to the start of construction activities. If vegetation removal is done during this time, a non-disturbance buffer would be placed around any active migratory bird species nests discovered, and the nesting birds would be monitored to ensure that they are not disturbed. The size of the buffer would depend on the species of the bird and the intensity/type of potential disturbance.

3. **Clearing and Grubbing.** Additionally, all clearing and grubbing of woody vegetation would be performed by hand or using light construction equipment (such as backhoes and excavators). This careful approach to vegetation removal would increase the likelihood that construction personnel would notice and be able to avoid unintentional impacts to nesting birds.

4. **Trash Removal.** All food and food-related trash items would be enclosed in sealed trash containers and properly disposed of offsite. This would avoid attracting wildlife species into the project area.

5. **Lighting.** Lighting required for night work would be shielded and directed downward toward where construction activities are taking place, to avoid light pollution in the area outside of where active construction is taking place. This would minimize the impact of light pollution on the nighttime behavior of nearby wildlife species.

6. **Avoiding Entrapment.** All construction-related excavations in the project area, including steep-walled holes or trenches, will be inspected by a qualified biologist at the beginning of each day and before they are filled to verify that no wildlife species are trapped in them. At the close of each working day, excavations more than 1 foot deep will be covered by

plywood or similar materials or would have appropriate escape ramps built into them. In addition, piping and other construction materials that could be used by wildlife species would be inspected by a biologist and capped before being used. All replacement pipes, culverts, or similar structures stored in the project area overnight will be inspected before they are subsequently moved, capped, and/or buried.

7. **USFWS post construction reporting.** The Biological Opinion from USFWS requires that Caltrans submit post construction compliance reports following the completion of construction per USFWS guidelines.

Construction could result in indirect effects on habitat from decreased water quality if sediment enters nearby water features. These effects are discussed further in Section 2.2.1, Water Quality and Stormwater Runoff. In addition, construction activities could result in the introduction of chemical contaminants, such as through oil or toxic chemicals leaking from construction equipment, to a work site or staging area. These effects are discussed in Section 2.2.1, Water Quality and Stormwater Runoff. These indirect effects would all be avoided through the use of project features discussed in the sections mentioned above and through the implementation of avoidance and minimization measures for protection of water quality, erosion control, and species-specific protection measures. Minor, indirect impacts (such as temporary shifts in foraging patterns or territories, noise, or light pollution) remain possible.

General activity from construction of all of the build alternatives would have the potential to disturb all of the species listed as present in the habitat surrounding the project area. Such indirect impacts are considered temporary.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

To avoid and minimize impacts on animal species, Caltrans would implement the following avoidance and minimization measure:

AMM BIO-6: Bat Breeding Season and Roosting Sites. A qualified biologist will conduct a habitat assessment for potentially suitable bat roosting habitat, between March 1 to April 1 or August 31 to October 15 prior to bridge construction activities. If the habitat assessment reveals the bridge structure is suitable roosting habitat for bats then the appropriate exclusionary

measures will be implemented prior to bridge construction during the period between March 1 to April 15, or August 31 to October 15. These measures may include blocking or filling potential cavities with foam, visual monitoring and staging construction activities to avoid bats. If bats are known to use the bridge structure, exclusion netting shall not be used.

If trees are determined to be bat habitat, and tree removal is scheduled for October 16 through January 15, then presence/absence surveys shall be conducted two to three days prior to tree removal or trimming. If presence/absence surveys are negative, then tree removal may be conducted by following a two phased tree removal system conduced over two consecutive days. On the first day (in the afternoon) limbs and branches are removed using chainsaws or other hand tools. Limbs with cavities, crevices, or deep bark fissures are avoided and only branches or limbs without those features are removed. On the second day the entire tree shall be removed.

AMM BIO-7: Fish species relocation plan. Prior to the use of a creek diversion system, a fish relocation plan will be developed to avoid impacts to fish species from construction.

Additional measures that would benefit salamanders and western pond turtle include AMM WATER-1 through AMM WATER-4, AMM BIO-1 through AMM BIO-4 and those AMMs listed below in Section 2.3.4 Threatened and Endangered Species.

2.3.5 Threatened and Endangered Species

REGULATORY SETTING

The primary federal law protecting threatened and endangered species is FESA: 16 USC Section 1531, et seq. See also 50 CFR Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as FHWA (and Caltrans, as assigned), are required to consult with USFWS and NOAA Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion

(BO) with an Incidental Take statement or a Letter of Concurrence. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, CESA, CFGC Section 2050, et seq. CESA emphasizes early consultation to: avoid potential impacts to rare, endangered, and threatened species; and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. CDFW is the agency responsible for implementing CESA. Section 2080 of the CFGC prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the CFGC as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a BO under Section 7 of FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of CFGC.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

AFFECTED ENVIRONMENT

Caltrans' NES (July 2017) assessed potential impacts to threatened and endangered species and their habitats that are protected under FESA and CESA. The potential presence of threatened and endangered species was determined based on the presence of species habitat availability for each part of their life cycle, the species' historical ranges, documented occurrences, and ecological factors that may inhibit dispersal, immigration, and establishment of a population in the BSA.

Caltrans originally consulted with USFWS and obtained a list of potential protected species on July 5, 2016, to determine if there was potential for any FESA-protected species to occur within the BSA. A similar species list was obtained from the National Marine Fisheries Service on August 23, 2016 and from CDFW in 2016. These lists are periodically updated and recent copies from January 14, 2019 are included in Appendix H, U.S. Fish and Wildlife Service Species List. This coordination process revealed that there are two potential species from the USFWS list, the California red-legged frog and the robust spineflower, and one potential species from the CDFW list, the foothill yellow-legged frog which is a candidate species protected under CESA. There are no species from the NOAA Fisheries Service list and no critical habitat from either the NOAA Fisheries list or the USFWS list that may occur in the BSA. The lack of species from the NOAA Fisheries Service list is because there are multiple fish passage barriers downstream that prevent anadromous fish from swimming upstream to the project area.

A Biological Assessment was submitted to USFWS on February 23, 2018 with the project's proposed findings of "may affect and likely to adversely affect" for California red-legged frog and provided proposed avoidance, minimization, and mitigation measures. It was determined there will be no effect to the remainder of the federally listed species on the project's official species lists. USFWS issued a BO on May 4, 2018 in response to the Biological Assessment. A copy of the BO has been included in Appendix I, U.S. Fish and Wildlife Service Biological Opinion.

California Red-legged Frog

The presence of the California red-legged frog is presumed based on its historical habitat range and documented observations of California red-legged frogs in nearby creeks. Two occurrences were documented about 1.3 miles away, close enough to be within the range for the species to be able to travel and be connected by continuous upland and aquatic habitat, which the California red-legged frog could move through. However, there are no suitable breeding sites within the study area. There are approximately 1.12 acres of potential aquatic dispersal[22] habitat present within the BSA and 24.12 acres of potential upland or upland dispersal habitat.

[22] Dispersal habitat is a type of habitat that a wildlife species can, and will, use only for traveling from one location to another.

The California red-legged frog requires both aquatic and riparian habitats. The aquatic habitats favored by this species are generally marshes, streams, ponds, and other permanent sources of water where there is dense riparian scrubby vegetation, such as overhanging willows, cattails, and bulrushes. The water quality in these areas must be good, and adult frogs prefer slow-moving water that is over 2 to 3 feet deep. They also breed in this type of habitat. They use upland dispersal habitat with dense vegetation for sheltering during winter months. In the dry season, they may live in small mammal burrows and moist leaf litter.

The BSA does not contain still or slow-moving water, emergent or low overhanging vegetation, or nearby animal burrows typical of breeding habitat. A juvenile American bullfrog (*Lithobates catesbeianus*) was also observed by a Caltrans biologist in the BSA, during one of the site visits in May 2016. Bullfrogs are known predators of California red-legged frog and decrease the chances of successful dispersal through the BSA.

Robust Spineflower

The federally listed endangered robust spineflower was evaluated for its potential to occur within the study area. The species is typically found in plant communities that are mostly, or all, native plants, and in sandy soils that have periodic soil disturbance (such as with natural sand dune formation). While the species is primarily found in coastal dune environments, it has also historically been found in interior locations of the Santa Clara and Santa Cruz mountains. However, the project area is dominated with non-native plant cover, and the soil disturbance does not parallel that of dune processes. This makes it unlikely that robust spineflower would actually be present in the project area. The robust spineflower was evaluated as part of protocol-level, rare plant surveys of the BSA, conducted in March, June, and August 2016, and then again in March, May, and July 2017. No robust spineflowers were observed in the study area during protocol-level surveys, and high intensity disturbances such as seasonal rainfall and roadway maintenance activities likely preclude the species. The species does not occur on-site; therefore it was determined there will be no effect to this species.

Foothill Yellow-legged Frog

There were no foothill yellow-legged frogs observed during the habitat assessment for the BSA. However, protocol level surveys will be conducted at

least one year prior to the start of construction. The BSA appears to fall within the historic range of this species. There are three CNDDB occurrences within five miles of the BSA which date back to the 1950s or earlier but are presumed extirpated. The species has not been detected in the watershed or in adjacent watersheds (Stevens and Los Gatos creeks) in recent decades despite considerable survey effort.

The foothill yellow-legged frog can be found in drainage systems throughout the foothills of California from the Oregon border down to the San Gabriel River system of Los Angeles County. They occur at elevations that range from sea level up to about 6,400 feet in streams that flow through a variety of vegetation types. These types include valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, mixed chaparral, and wet meadows. This type of frog favors channels with at least some shading by riparian vegetation and are rarely found in areas with heavy shading. They remain close to the areas where they live in shallow, small to medium sized streams with cobble creek bottoms. They will also lay their eggs beneath the cobble stones in these types of creeks.

Sanborn Creek is a permanent source of water and contains appropriately sized cobble and boulders in its creek bottom that could provide non-breeding habitat or act as a movement corridor for the foothill yellow-legged frog. However, Sanborn Creek within the project footprint is not characterized by a wide, sunlit channel. Given the low width to depth ratio and high water velocity, there is no suitable breeding habitat within the BSA. However, Considering the lack of preferred habitat, the absence of the species during site visits, and the distance to areas where the species has recently been documented, there is a very low potential for the species to occur in the BSA.

ENVIRONMENTAL CONSEQUENCES

During rare plant surveys, no robust spineflower individuals were observed and no impacts are anticipated.

Based on the best available science, there is a very low potential for this species to occur within the BSA, and the species has not been detected within the watershed. Therefore, no impacts to individuals or habitat are anticipated. If evidence of this species is observed during protocol level surveys during the next phase of project development, or at any time, impacts

will be reevaluated, and consultation will be carried out with the regulatory agencies as necessary.

Tables 2.3-7 and 2.3-8 summarize the potential permanent and temporary impacts to California red-legged frog habitat for each alternative. The tables are followed by an explanation of the sources of potential impacts and project features that avoid and minimize the impacts.

Table 2.3-7: Acres of Permanent Impacts to Potential California Red-Legged Frog Dispersal Habitat

Vegetation Community/ Land Cover Type	"Hybrid" Alternative (Acres)	ABC Alternative 2 (Acres)
Upland Habitat	0.05	1.49
Non-Breeding Aquatic Habitat	0.19	0.19
Total	**0.24**	**1.68**

Source: Natural Environment Study 2019

Table 2.3-8: Acres of Temporary Impacts to California Red-Legged Frog Habitat

Vegetation Community/ Land Cover Type	"Hybrid" Alternative (Acres)	ABC Alternative (Acres)
Upland Habitat	1.94	0.50
Non-Breeding Aquatic Habitat	-	-
Total	**1.94**	**0.50**

Source: NES 2019

The following potential temporary and permanent impacts to California red-legged frog are listed by alternative:

"Hybrid" Alternative

Permanent Impacts

The placement of RSP, guardrail construction, bridge deck widening, and the removal of mature shade trees over Sanborn Creek may result in potential permanent impacts to 0.19 acres of non-breeding aquatic habitat and 0.05

acres of permanent impacts to upland habitat for California red-legged frog. Tree replacement planting will eventually minimize the effects of the removal of mature shade trees, but this process will take many years for the trees to fully mature to the point where they will again shade the creek.

Temporary Impacts

Bridge construction activities, construction of TCAR Option 1, construction of the temporary detour bridge, vegetation removal, and utility relocation may cause temporary impacts to 1.94 acres of the California red-legged frog upland habitat. These impacts would be minimized by the restoration of impacted areas with replacement planting of native plants and restoration of the bed and bank of Sanborn Creek within one year of initial ground disturbance.

ABC Alternative

Permanent Impacts

The removal of mature shade trees over Sanborn Creek may result in potential permanent impacts to 0.19 acres of non-breeding aquatic habitat for California red-legged frog. Tree replacement planting will eventually minimize the effects of the removal of mature shade trees, but this process will take many years for the trees to fully mature to the point where they will again shade the creek. This alternative does not require the placement of RSP in Sanborn Creek. The current assumption for this alternative's bridge design is for a clear span that would not have a central pier and have no need for bridge scour treatment.

Bridge construction activities, construction of TCAR Option 1, construction of the temporary detour bridge, and vegetation removal may cause 1.49 acres of permanent impacts to upland habitat for California red-legged frog due to the assumption that construction of this alternative would take more than one year. All disturbed upland habitat that is not incorporated into the new bridge footprint would be restored to previous conditions and replanted with native species that would provide upland habitat for California red-legged frog.

Temporary Impacts

The relocation of utilities would temporarily impact approximately 0.50 acres of California red-legged frog upland habitat.

No Build Alternative

There are no anticipated impacts from the No Build Alternative. When the need for a new bridge is identified from inspection results or a seismic event that results in bridge instability, there will be replacement impacts similar to those described for the ABC alternative.

Both Build Alternatives

A temporary creek diversion/crossing is proposed for both build alternatives. This creek crossing would be removed at the end of construction and the creek bed and banks would be restored as close as possible to their original contours to minimize impacts as described in Section 2.2.1 Water Quality and Stormwater Runoff. The ABC Alternative would also remove this creek crossing during the wet season between the first and second year of construction if both years are needed for construction. The creek crossing would result in 0.19 acres of temporary impacts to non-breeding aquatic habitat for California red-legged frog, which overlaps the 0.19 acres of permanent impacts to aquatic habitat for the species.

Dispersing California red-legged frog may be directly affected as a result of the use of heavy equipment, night lighting, removal of vegetation, the placement of RSP, removal of soil, redistribution of soils, grading, dust, noise, capture, or relocation. These risks are similar for both of the build alternatives. Project features mentioned in Section 2.3.4 Animal Species above would help to avoid and minimize direct impacts to California red-legged frog.

There are also potential indirect effects to California red-legged frog and its habitat; which may result from all of the project build alternatives either during or after construction. These potential indirect effects are from the possible increases in erosion, sediment entering Sanborn Creek, contamination from leaking construction equipment or supplies, or changes in the way the water flows through the project area. The project features mentioned in Section 2.2.1 Water Quality and Stormwater Runoff, Section 2.3.1 Natural Communities, and Section 2.3.2 Wetlands and Other Waters can also be applied here to avoid and minimize potential impacts to the California red-legged frog.

Table 2.3-9 summarizes the effects findings under the FESA. The project will have no effect on all of the species listed in Appendix J: U.S. Fish and Wildlife

Service Species List except for the California red-legged frog. The robust spineflower does not occur within the study area, and would not be affected by the project. Caltrans has determined that the project may affect, and is likely to adversely affect the California red-legged frog due to a potential for the species to be present in the project area. A BO was obtained on May 4, 2018 from the USFWS. This BO concurred with the project's effects determination on California red-legged frog.

Table 2.3-9: Federal Endangered Species Act Effect Findings

Common Name	Scientific Name	Status*	Effect Finding	Effect Finding for Critical Habitat (if applicable).
California Red-Legged Frog	*Rana draytonii*	Federally Threatened, State Species of Special Concern	May Affect, Likely to Adversely Affect	N/A

PROJECT FEATURES

The project, as described in Chapter 1, includes the following standard Caltrans features to reduce impacts to threatened and endangered species:

1. **Special Status Species Handling.** Only a USFWS-approved biologist will handle California red-legged frog, using USFWS-approved handling techniques. A biological monitor will handle any discovered protected species. Standard species-handling protocols will be used if individuals are discovered within the project area.

2. **Consultation with CDFW.** Consultation with CDFW will occur if individuals of species under state jurisdiction are found within the project area before or during construction.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following measures have been proposed to avoid, minimize, and mitigate for potential impacts to California red-legged frog:

AMM BIO-8: California red-legged frog construction work window and timing. The Biological Opinion from USFWS requires that all construction

activities within the bed and bank of Sanborn Creek will be limited to the maximum extent practicable to work between June 15th and October 15th. This work window will be to avoid the period when California red-legged frog are the most active. Construction activities, such as vegetation clearing necessary to minimize effects on birds and bats, may be conducted outside this period.

AMM BIO-9: California red-legged frog habitat replacement ratio. The Biological Opinion from USFWS requires a compensatory mitigation ratio of 1:1 for temporary impacts onsite and 3:1 offsite for the permanent loss of 1.8 acres of California red-legged frog habitat.

AMM BIO-10: Biological monitor. The Biological Opinion from USFWS requires that a USFWS approved biological monitor be onsite during all work that could reasonably impact California red-legged frogs. Monitoring and surveys will be done per USFWS guidelines as well as those included in the Biological Opinion.

AMM BIO-11: Preconstruction survey for California red-legged frog. The Biological Opinion from USFWS requires that preconstruction surveys for special status species, including California red-legged frog, will be conducted by the USFWS-approved biological monitor no more than 20 calendar days prior to any initial ground disturbance and immediately prior to ground disturbing activities (including vegetation removal) within the project footprint.

AMM BIO-12: Protected species discovery. The Biological Opinion from USFWS requires the biological monitor alert the resident engineer to stop work if any protected species are discovered. Work will resume after observed individuals leave the site voluntarily, the USFWS-approved biological monitor determines that no wildlife is being harassed or harmed by construction activities, or the wildlife is removed by the biologist to a release site using USFWS-approved handling techniques.

AMM BIO-13: Handling protected species. Only the biological monitor will handle any discovered protected species.

In addition to these measures, AMM BIO-1, 3, 4, 8, 9, and 10 would also benefit the California red-legged frog.

2.3.6 Invasive Species

REGULATORY SETTING

On February 3, 1999, President William J. Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." FHWA guidance issued August 10, 1999, directs the use of the State's invasive species list, maintained by the California Invasive Species Council, to define invasive species that must be considered as part of the NEPA analysis for a proposed project.

AFFECTED ENVIRONMENT

The July 2017 NES assessed potential impacts from invasive species. Invasive species were considered based on their listing by the California Invasive Plant Council (Cal-IPC). Cal-IPC defines high-priority invasive species as those species that "have severe ecological effects on physical processes, plant and animal communities, and vegetation structure" (California Invasive Plant Council 2017).

Invasive species were observed during the rare plant surveys done in March, June, and August 2016. There were several invasive plant species observed, including invasive brooms (*Cytisus* spp. or *Genista* spp.), yellow star thistle (*Centaurea solstitialis*), and Himalayan blackberry (*Rubus armeniacus*). Other non-native species that were observed include big leaf periwinkle (*Vinca major*), English ivy (*Hedera helix*), milk thistle (*Silybum marianum*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus*), forget-me-not (*Myosotis latifolia*), ripgut brome (*Bromus diandrus*), curly dock (*Rumex crispus*), and silverleaf cotoneaster (*Cotoneaster pannosus*).

Some invasive animal species were also observed in, or near, the project area during biological surveys. A juvenile American bullfrog was observed just outside of the project footprint and may also occur within the project footprint.

ENVIRONMENTAL CONSEQUENCES

Both project build alternatives would have similar impacts to invasive species. There are no anticipated impacts from the No Build Alternative.

There is potential for new invasive species to be brought in on equipment, material, and vehicles used for construction activities. There is also potential to spread existing invasive species into new areas of the project footprint, as the removed vegetation and excavated dirt are relocated from one area of the project footprint to another. In addition to this, invasive species tend to out-compete native species in areas of new ground disturbance.

In compliance with the EO on Invasive Species, EO 13112, and guidance from FHWA, the landscaping and erosion control included in the project would not use species listed as invasive. All equipment and materials would be inspected for the presence of invasive species and cleaned, if necessary. In areas of particular sensitivity, extra precautions would be taken if invasive species are found in or next to the construction areas. These would include the inspection and cleaning of construction equipment and eradication strategies to be implemented, should an invasion occur.

PROJECT FEATURES

The following project features would reduce the potential impacts mentioned above:

1. **Disposal.** Disturbed high- or medium-priority noxious weeds (as defined by the Cal-IPC) would be contained and disposed of in a way that would not promote the spread of the species.
2. **Replanting.** Areas subject to noxious weed removal or disturbance would be replanted with fast-growing native grasses or a native erosion control seed mix to prevent noxious weeds from establishing in areas disturbed by construction activities.
3. **Cover.** If immediate reseeding is not possible, then the area would be covered to the extent practicable with heavy black plastic solarization material until completion of construction. This would act as a barrier to noxious seed establishment.
4. **Cleaning of Equipment.** All earthmoving equipment and seeding equipment would be thoroughly cleaned before arriving on the project site in order to prevent the spread of noxious weeds from other locations.
5. **Borrow material.** Borrow material would be certified to be non-toxic and weed free to the maximum extent possible.

2.4 Cumulative Impacts

REGULATORY SETTING

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial, impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion of land to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences, such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. The activities can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

The California Environmental Quality Act Guidelines, Section 15130, describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under NEPA can be found in 40 CFR, Section 1508.7.

AFFECTED ENVIRONMENT

This section discusses the potential for project impacts that have been identified previously to have a larger impact overall when considered with the actions of other projects. As stated in the beginning of Chapter 2, not all of the resource areas discussed in this document have a potential to be affected by the project. The following resources would not be assessed for cumulative impacts because the proposed project would not have any potential impacts on them:

- Existing and future land use
- Consistency with state, regional, and local plans and programs
- Farmlands/timberlands
- Growth
- Community character and cohesion
- Environmental justice
- Hydrology and floodplain
- Hazardous waste/materials
- Plant species
- Invasive species
- Air quality
- Noise
- Energy

Table 2.4-1 lists the study area boundaries that have been used in consideration for each of the resources that have been included in the cumulative impacts analysis for the proposed project.

Table 2.4-1: Resources Considered for Cumulative Impacts and Their Study Areas

Resource Area	Resource Study Area
Parks and Recreational Facilities	Santa Clara County
Relocations and Real Property Acquisition	Santa Clara County
Utilities / Emergency Services	Santa Clara County
Traffic and Transportation/Pedestrian and Bicycle Facilities	Santa Clara County
Visual / Aesthetics	Santa Cruz Mountain Landscape Unit: SR-9 from the City of Saratoga Boundary to the Santa Clara County Limit
Cultural Resources	SR-9, PM 0.0-7.03

Table 2.4-1: Resources Considered for Cumulative Impacts and Their Study Areas

Resource Area	Resource Study Area
Water Quality and Stormwater Runoff	Local Watershed
Geology / Soils / Seismic / Topography	EIR/EA Study Area
Paleontology	Alluvial Fan Deposit Where Project Occurs
Natural Communities	Santa Cruz Mountains
Wetland and Other Waters	Local Watershed
Plant Species	Santa Cruz Mountains
Animal Species	Santa Cruz Mountains
Threatened and Endangered Species	California Red-legged Frog: Santa Cruz Mountains
Invasive Species	Santa Cruz Mountains

Table 2.4-2 identifies the various past, present, and reasonably foreseeable private and public development projects within the vicinity around the Saratoga Creek Bridge Project.

Table 2.4-2: Other Planned Projects Considered for Cumulative Impacts

Project Type	Location	Characteristics	Status
Local Projects			
Saratoga Quarry	20996-2198 Congress Springs Road	Development of a community park	Phase 1 of 3 of the Quarry Park Master Plan has been completed.
Hakone Master Plan	21000 Big Basin Way, Saratoga, CA 95070	Restoration of historic Japanese gardens	City of Saratoga recently approved the plan and adopted the environmental document.

Table 2.4-2: Other Planned Projects Considered for Cumulative Impacts

Project Type	Location	Characteristics	Status
Highway 9 Safety Project	SR-9 from Saratoga Ave in Saratoga to Los Gatos	Pedestrian and bicycle improvements project	Phase 4 of 4 construction currently in progress.
Joe's Trail at Saratoga De Anza	Along Union Pacific Railroad tracks through Cupertino, Saratoga, Los Gatos, and Campbell	Pedestrian and bicycle pathway	The project has been completed. The environmental document was approved in 2007.
Prospect Road Improvement Project	Prospect Rd. between Saratoga-Sunnyvale Rd. and Lawrence Expressway in Saratoga	Road beautification and safety improvement project	The project is scheduled to be completed in July 2019.
Saratoga Village Revitalization	City of Saratoga Downtown Area	Downtown enhancement project	Currently updating the Saratoga Village Plan.
Village Pedestrian Enhancement	City of Saratoga Downtown Area	Downtown enhancement project	Phase 1 of 2 has been completed.
Quito Road Bridges	Quito Rd. near the border with Saratoga and Los Gatos, just north of the intersection of Quito Rd. and Old Adobe Rd.	Replacement of 2 bridges	Construction is currently scheduled to begin in the Spring of 2018.
Covina Entrance Improvements LLD	Entrance areas at Covina Ct. and Prospect Rd. in Saratoga	City enhancement project	Design plans have been approved.

Table 2.4-2: Other Planned Projects Considered for Cumulative Impacts

Project Type	Location	Characteristics	Status
Dewitt Ave "S" Curve Roadway Realignment Project, Spring Ave to Origilia Ln.	On Dewitt Ave. between Spring Ave. and Origilia Ln. in Santa Clara County	Roadway realignment project	Currently in construction.
Alamitos Creek Bridge Replacement	Alamitos Rd 0.1 mile south of Cinnabar Hills Rd.	Bridge replacement and roadway realignment	Project construction schedule from Summer 2017-October 2018
Los Gatos Creek Watershed Maintenance Program	Upper Los Gatos Creek Watershed	Facilities maintenance and management of watershed lands that require sediment removal, facilities repair, vegetation removal, road maintenance, and fire fuel management	Environmental document finalized June 2017.
Bear Creek Residence	Bear Creek Rd., Los Gatos	Construction of a single residential home	Currently in design review by Santa Clara County.

Table 2.4-2: Other Planned Projects Considered for Cumulative Impacts

Project Type	Location	Characteristics	Status
State Projects			
SCL-9 Improve Sight Distance	SR-9 PM 2.6, 6.05, and 6.85	Improving sight distance along roadway by upgrading lanes, shoulders, increasing roadway elevation, installing/repairing guardrails, installing warning signs, cutting back slopes, and installing retaining walls	Project completed in 2016.
SCL-9 Shoulder Widening	SR-9 PM 0/7	Shoulder widening through paving existing unpaved shoulders	Project completed in 2014.
SCL-9 Tieback Wall	SR-9 PM 4.2	Installing a tieback wall downslope of SR-9	Project completed in 2015.
SCL-9 Construct Retaining Wall	SR-9 PM 4.64	Installing a retaining wall downslope of SR-9	Project construction completed in 2017.
SCL-9, 17, 25 Upgrade Traffic Barriers	SCL-9, SCL-17 PM 7-13.5, SCL-25	Upgrade of traffic barriers	Project completed in 2012.
SCL-9, 17, 25 Bridge Deck & Joint Seal Repair	SCL-9 PM 0/0.5, SCL-17 PM 1.2/R7.7, SCL-25 2.8/10.7	Bridge deck treatment	Project completed in 2012.

Table 2.4-2: Other Planned Projects Considered for Cumulative Impacts

Project Type	Location	Characteristics	Status
SCL-9 & 17 Bridge Railing Replacement	SCL-9 at PM 3.6 & SCL-17 at PM 11.4	Bridge railing replacement	Project completed in 2016.
SCL-17 Wet Pavement	SCL-17 PM 0.0/2.8	Drainage repair	Project completed in 2013.
SCL-VAR Sub-Structure Rehab	SCL-9 PM 4.35 SCL-25 PM 1.57 SCL-82 PM 26.36 SCL-85 PM R12.68 SCL-152 PM 6.10	Bridge scour abatement	Project currently being designed.

ENVIRONMENTAL CONSEQUENCES

Issues with No Cumulative Effect

Parks and recreational facilities, and relocations and real property acquisition were considered as having minimal potential for direct or indirect impacts by the proposed project; they were not impacted by any of the other projects that overlapped with their identified resource study areas. The potential impacts to utilities/emergency services, and traffic and transportation/pedestrian and bicycle facilities, are all due to potential temporary construction impacts. As such, they would not be contributing to long-term cumulative effects.

Geology/soils/seismic/topography resources are not subject to cumulative effects. Individual impacts on these resources from construction do not affect the resources overall. The impacts are site specific and relate to the effect of these conditions on the proposed project and how the project may affect safety conditions in the area.

Paleontological resources would not be subject to cumulative effects because there are no other projects anticipated that would also impact the potential fossil-bearing deposit over which the project is located partially. The project is

also expected to have only a minimal potential to affect paleontological resources.

Water quality and stormwater runoff, wetlands and other waters, and natural communities would not be subject to cumulative effects. The Santa Clara General Plan designates these lands as unsuitable and/or unplanned for annexation and urban development. They are not slated for future changes in zoning (Santa Clara County 1994). Several Caltrans roadway improvement safety projects have been planned, and some have recently been constructed, along SR-9. None of these projects are expected to have significant impacts on trees, and replacement planting plans have been incorporated into the project designs in instances where vegetation is removed. The projects are also not expected to affect Sanborn Creek or other aquatic resources in the local watershed. Standard Caltrans water quality best management practices will be utilized to avoid and minimize impacts to jurisdictional waters. These other projects also include standard measures to reduce potential impacts to natural communities and water resources, as well as implementation of avoidance, minimization, and mitigation measures included in any of the various resource agency permits that may be required. There are two projects, the Saratoga Quarry Park and the Los Gatos Creek Watershed Maintenance Program, which may have a net beneficial effect on these resources through habitat restoration efforts.

There are no anticipated direct or indirect impacts from the proposed project on plant species, namely the Santa Clara Ribbons, which were identified during plant surveys. Animal species are expected to have a low potential for direct or indirect impacts from the proposed project. The project would avoid and/or minimize potential impacts to these resources through the use of standard measures, such as use of Environmentally Sensitive Areas, as mentioned in Section 2.3 Biological Environment. Both resources are also protected by the Santa Clara General Plan designation of the lands as unsuitable and/or unplanned for annexation and urban development. The Caltrans roadway improvement safety projects that occur in their resource study area for cumulative impacts have undergone their own analyses, and had standard measures implemented to avoid and minimize the potential for impacts on these plant and animal species.

The California red-legged frog is the only threatened and endangered species identified as having a potential to occur in the project area. The California red-legged frog's presence is presumed based on its historical range. As mentioned previously, the Santa Clara General Plan designates these lands as unsuitable and/or unplanned for annexation and urban development. This protects California red-legged frog habitat and individuals from threat of human development overtaking their habitat. Also, the listing status of these species further protects them and their habitats from disturbance by federally funded projects. The Caltrans projects occurring along SR-9 have each undergone their own analyses and reviews for effects on special status species; and these projects were expected to have similar impacts on California red-legged frog. Temporary, direct or indirect, impacts would be avoided or minimized by implementing the project features, avoidance, and minimization measures described in the project's environmental document. With implementation of these measures, the project will not result in any incremental effects that would be cumulatively considerable to California red-legged frog.

Issue with the Potential to Contribute to the Cumulative Effect

Cultural Resources

Cultural resources (architectural history) are included in the resources to consider for cumulative impact assessment because both Build Alternatives will result in an adverse effect to the Saratoga Creek Bridge, a resource that is eligible for inclusion on the NRHP and the CRHR.

The Resource Study Area (RSA) for impacts related to cultural resources (architectural history) is defined as the area that may be potentially impacted from a cultural resources' perspective because of the proposed project and relevant future projects included in Table 2.4-2. The RSA only considers projects that occur along SR-9, starting at PM 0.0 at the Santa Clara County line, going to PM 7.03, at approximately the city limits of the City of Saratoga, extending approximately 7 miles. This area was selected as the RSA as it contains the geographic context needed to understand the historic significance of a structure. The bridge, constructed in 1902, is significant for its association with the growth of industry and recreation in the area east of the City of Saratoga, and as an early example of a significant type of bridge, as well as being the work of the master engineer, County Surveyor John McMillian.

The analysis of cumulative impacts related to built environment cultural resources is limited to impacts related to other such resources that are eligible for or listed on the NRHP and CRHR and are of a similar type and historical context to the resource in question. The overall health of built environment cultural resources in the RSA is assumed to be stable based on research, and historical data.

The Hakone Gardens is the only other known built environment cultural resource in the RSA that is listed on the NRHP. However, the gardens are a different type of historic resource than the Saratoga Creek Bridge. The existing bridge and the gardens also lack shared historical context. The Saratoga Creek Bridge was constructed in 1902, to replace the previous bridge, Long Bridge, which was constructed in 1876 to enable the transportation of lumber from the surrounding hills down the valley into Saratoga. In the early twentieth century, with the development of recreation spurred on by the automobile, the Saratoga Creek Bridge became the nexus of local festivities as the Long Bridge Resort located at the base of the bridge grew and thrived. The Saratoga Creek Bridge is significant for its association with the development of industrial and recreational growth in the area. The historical context for the Hakone Gardens is quite different. In 1915, prominent San Francisco residents Oliver and Isabel Stine purchased the land west of the City of Saratoga for a summer family retreat. Inspired by the Japanese gardens and cultural exhibits at the 1915 Panama-Pacific Exposition, Isabel Stine traveled to Japan in 1916. Soon after returning, Isabel Stine began plans to establish a Japanese country-style villa on the property.

This difference in the type of historic resource and the lack of shared historical context means that the Hakone Gardens and the existing Saratoga Creek Bridge are not comparable built environment cultural resources.

The existing Saratoga Creek Bridge is the only known historic resource of its type, a historic bridge, within the RSA. There are three other bridges within the RSA: West Branch Saratoga Creek Bridge (37 0073), Saratoga Creek Bridge (37 0075), and Saratoga Creek Bridge (37 0078). All three of these bridges have been studied and have been determined not eligible for the NRHP or the CRHR.

The existing Saratoga Creek Bridge is the only built environment cultural resource of its type and historical context within the RSA. Both Build Alternatives would have an adverse effect on the Saratoga Creek Bridge as a whole by removing, or heavily altering, characteristics that helped to qualify it for the NRHP and CRHR. There would be no cumulative impact to the built environment cultural resources along SR-9 that this project would contribute to because this project would potentially remove the historical standing of the only resource of its kind in the RSA and so would not result in incremental effects. Section 2.1.5 Cultural Resources provides the analysis of this potential impact to the historical resource on an individual scale.

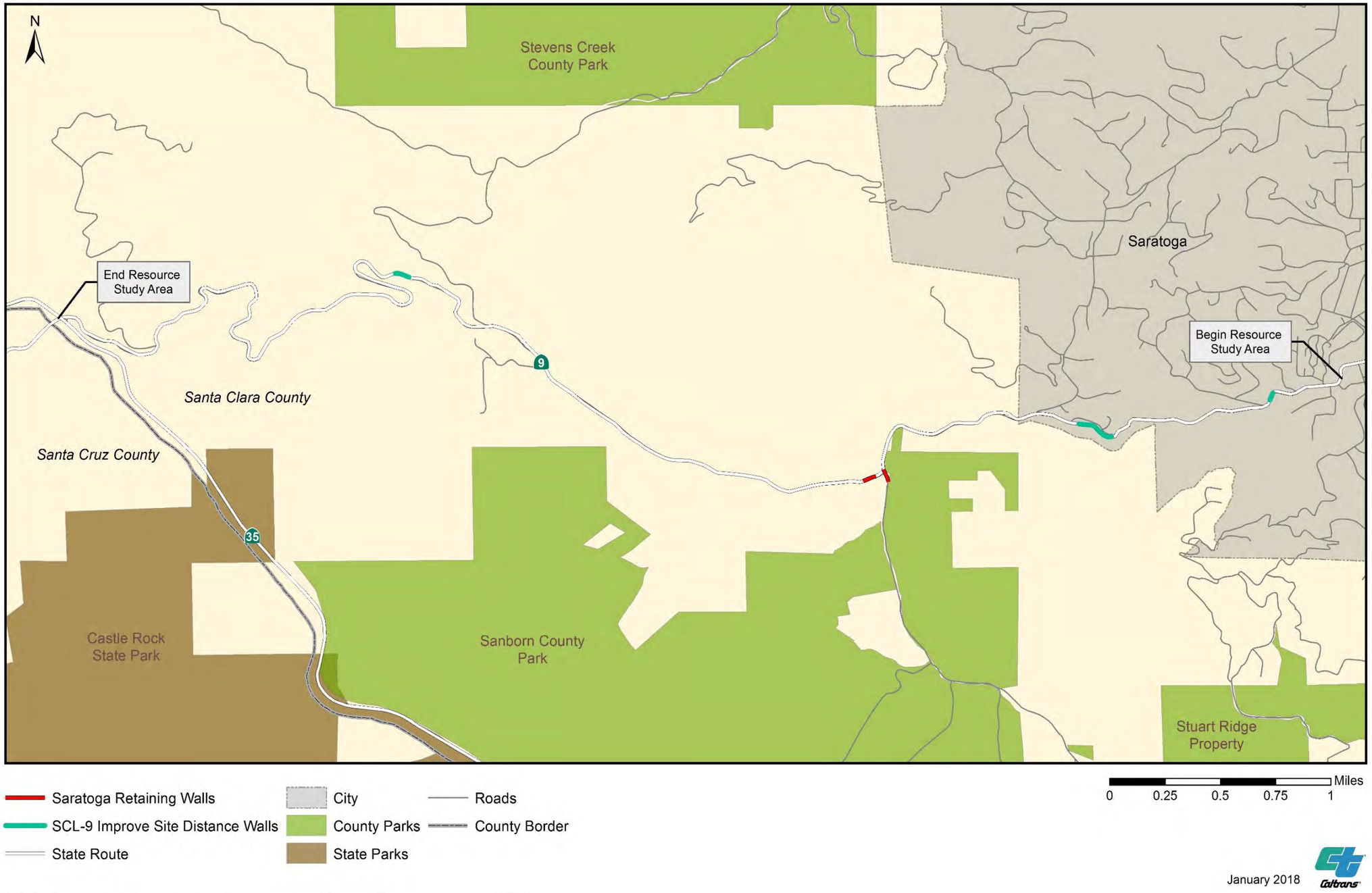


Figure 2.4-1: Potential Cumulative Impacts for Visual Resources on SR-9

2.5 Construction Noise Impacts

AFFECTED ENVIRONMENT

A Construction Noise Analysis study was completed in April 2019 by the Caltrans' Office of Environmental Engineering. This study assessed the potential noise impact from activities during construction of the two proposed build alternatives.

The study used the FHWA Roadway Construction Noise Model (RCNM) to assess potential project construction activity noise impacts on receptors in close proximity to the project location where those activities would occur. This study considers receptors to be locations of frequent human use. The level of noise is measured in decibels (dBA). The study measured the maximum (L_{max}) anticipated noise levels and the average hourly noise levels (L_{eq}) that would result from expected construction activities at 50 feet, 100 feet, 200 feet, and 300 feet from the location of the existing bridge where construction would occur. Areas beyond 300 feet are not anticipated to be impacted by construction noise.

A separate calculation of L_{max} and L_{eq} is done for each construction activity that may result in a temporary noise impact. Caltrans' standard for temporary construction noise impacts is to not exceed an L_{max} of 86 dBA at 50 feet from the construction site from 9:00 pm to 6:00 am (State of California Department of Transportation 2018). The construction activities used in the analysis are hypothetical and will not necessarily be used during construction of the preferred alternative. For example, both the Drive Steel Soldier Piles and Drill & Install CIDH Piles were analyzed. These are two options for installing piles whose use will depend on site investigations of the underlying hillside that will be done during the next phase of design.

Three receptor locations were used for the RCNM analysis and are shown in Figure 2.5-1 Location of receptors analyzed from the Construction Noise Analysis. The first is Location A, a private picnicking area set directly at the base of the existing bridge. This location has been identified in both build alternatives as a construction staging and storage area and the public will not be allowed in this area during construction due to safety concerns. The second is Location B, a private residence located 130 feet away from the

existing bridge. The third is Location C, a trailhead for Sam Trail in Sanborn County Park located about 370 feet away from the existing bridge.

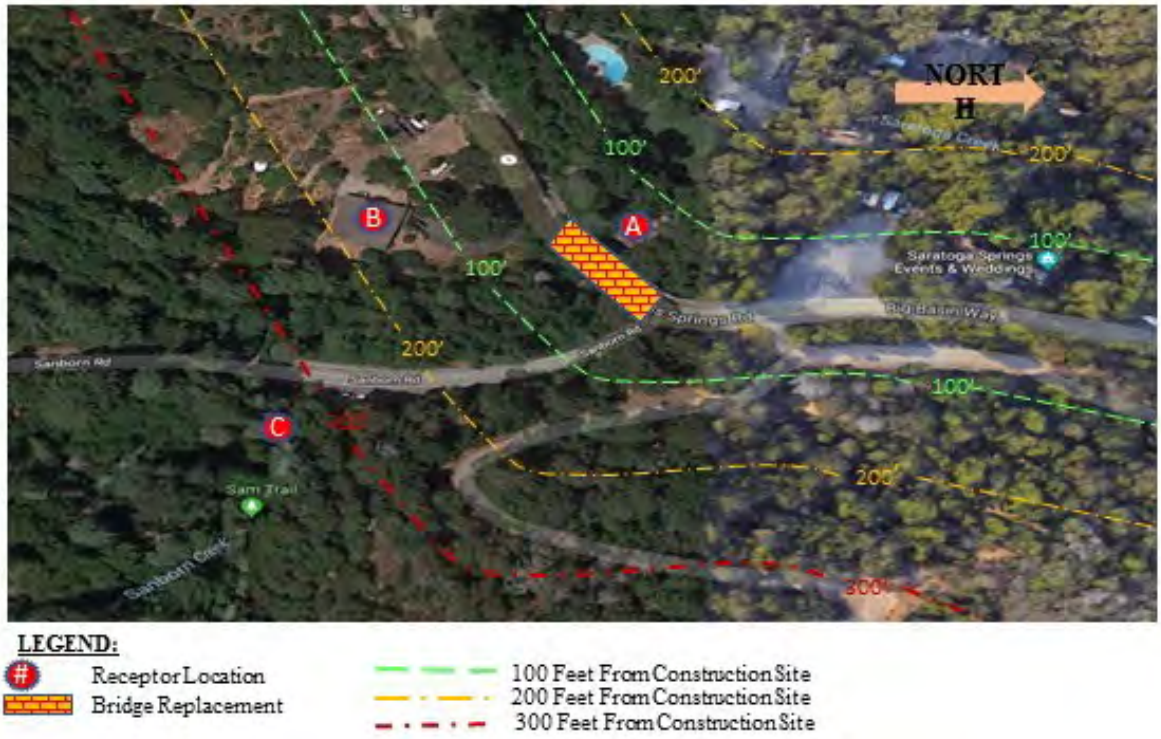


Figure 2.5-1 Location of receptors analyzed in the Construction Noise Analysis.

ENVIRONMENTAL CONSEQUENCES

The results of the Construction Noise Analysis study show that all construction activities at Location A are likely to exceed an L_{max} of greater than 86 dBA. This is expected since this location would be part of the active construction area. The location will be located within the area proposed for a Temporary Construction Easement and the public would not be allowed within this easement.

There are two construction activities that have the potential to create L_{max} measurements of greater than 86 dBA at distances further away than Location A. The first activity the driving of steel soldier piles, which would exceed the L_{max} limit in an area up to 200 feet from the construction location. The second activity is demolition of the existing bridge, which would exceed the L_{max} limit up to 50 feet from the construction location.

Driving of steel soldier piles is one option for the construction of the abutments of the temporary bridge for the temporary detour roadway option if it is used for traffic management during construction. This would apply to both build alternatives. However, use of driven steel soldier piles is dependent on the composition of the rock/soil in the hillside where the temporary bridge abutments would be located.

A geotechnical investigation to determine the composition of the underlying hillside would be conducted in the next phase of design if the temporary detour roadway is chosen for traffic management. A spread footing design or installed CIDH piles would likely be used if driven steel piles are shown to be infeasible. Drilling for the CIDH piles would not exceed the L_{max} limit except in Location A.

The following standard measures for reducing construction noise impacts are used on all Caltrans projects:

- Members of the public shall not be allowed inside the temporary construction easement during construction.
- Public outreach will be done throughout the duration of construction to update nearby residents, businesses, and other project stakeholders on upcoming construction activities and any changes to the project construction timeline.
- All internal combustion engines will be equipped with manufacturer recommended intake and exhaust mufflers that are in good condition and appropriate for the equipment. These engines will be properly maintained to minimize noise generation.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following measures are proposed to minimize and avoid temporary construction noise impacts that would exceed the standard Caltrans L_{max} limit.

AMM Noise-1: Bridge Demolition and Pile Driving Work Restriction. Bridge demolition and pile driving shall not be allowed between the hours of 9:00 pm to 6:00 am of the following day.

AMM Noise-2: Construction Delivery Hours Limit. No construction equipment and material will be delivered and dropped off between the hours of 9:00 pm to 6:00 am of the following day.

Chapter 3 California Environmental Quality Act (CEQA) Evaluation

3.1 Determining Significance under CEQA

The proposed project is a joint project by Caltrans and FHWA and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. FHWA's responsibility for environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC Section 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans. Caltrans is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each "<u>significant effect on the environment</u>" resulting from the project, and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of "<u>mandatory findings of significance</u>," which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of

mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the 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 NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects, such as BMPs and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be integral parts of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 in order to provide the reader with the rationale for significance determinations. For a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2, and is completed based on the preferred alternative.

3.2.1 Aesthetics

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

CEQA Significance Determinations for Aesthetics

a) No Impact

At the project site, there are no scenic vistas. Under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Public agencies can also officially designate a scenic vista. A substantial adverse effect to such a scenic vista is one that degrades the view from such a designated view spot. Because the project has no scenic vistas, there is no effect to scenic vistas.

b, c) Less Than Significant Impact

As discussed in the Visual/Aesthetics section in Chapter 2, this project is located on a segment of SR-9 that is a designated California Scenic Highway, as well as a county-designated scenic highway within Santa Clara County. The Saratoga Creek Bridge is a historic structure that is located within the scenic highway.

Viewers are expected to be highly sensitive to visual change along this scenic corridor. Both of the project alternatives would require removal of mature trees in the project area around the bridge and a net widening of the bridge by 4 or 16 feet. Viewers are considered to be sensitive to these changes since the tree removal and bridge widening would change the character and quality of this area from a closed-in atmosphere to an open one. The intact quality and forested character of the project site would be diminished for decades in either build alternative. Further, the intimate scale of the existing bridge would be permanently diminished as the bridge would be widened to include shoulders. For all alternatives, an aesthetic treatment will be incorporated into the bridge structure, including the bridge barrier and bicycle rail. A context-sensitive texture and color will be used to minimize the change to the visual character caused by replacing or rehabilitating the existing historic structure**.**

Approximately 344 trees are anticipated to be removed for both build alternatives. Vegetation removal would be the biggest impact to visual character and quality for both alternatives. Section 2.1.4 Visual/Aesthetics shows the three Key Views used for the analysis of each alternative. A simulation of the “Hybrid” Alternative is shown in Figure 1-13 found in Section 1.6.1 Identification of the Preferred Alternative.

The “Hybrid” Alternative would require retaining walls below the roadway to widen the abutments. The railings would be removed and replaced to accommodate the increased width and lane configuration. A context sensitive architectural treatment would be applied to the new outer surface of the bridge deck that would reduce the contrast and increase compatibility of the deck with the original stone bridge beneath. Visual impacts from this alternative would be moderate-low and less than significant. The CEQA determinations reflect this finding since this alternative was chosen as the preferred alternative.

The ABC Alternative would have a similar impact footprint to the Retrofit Alternative that was considered in the draft environmental document, except

that none of the original bridge would remain, so the entirety of the bridge would have a context sensitive architectural treatment applied. This alternative would result in a moderate-high level of visual impact which would have resulted in less than significant impacts with the application of proposed mitigation measures.

Additional project features, avoidance, and minimization measures are discussed in Section 2.1.4 Visual/Aesthetics. These would be incorporated into the project design using a combination of construction strategies, design modifications, and context-sensitive solutions to avoid and minimize potential project impacts.

d) <u>No Impact</u>

The proposed project would not include new lighting elements in an area in which there is currently no lighting.

3.2.2 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:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

CEQA Significance Determinations for Agriculture and Forest Resources

a) <u>No Impact</u>

As mentioned at the beginning of Chapter 2, there would be no effects to farmlands because there are none in or adjacent to the project area.

b) <u>No Impact</u>

There are no parcels under a Williamson Act contract within the project limits.

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

There are no forests or timberlands within the project limits.

e) <u>No Impact</u>

There are no other changes anticipated to farmland or forest land.

3.2.3 Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the project:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR AIR QUALITY

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

The proposed project is located in the San Francisco Air Basin and is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (CARB). The BAAQMD is the primary agency responsible for writing the Clean Air Plan in cooperation with the Metropolitan Transportation Commission (MTC), local governments, the private sector, and traffic flow due to construction operations. The Clean Air Plan provides the blueprint for meeting state and federal ambient air quality standards. This project is not a capacity-increasing transportation project and would have no impact on traffic volumes. The proposed project is included in the MTC's most recent Regional Transportation Plan and Transportation Improvement Program, both of which were found to be conforming. Therefore, the proposed project would not conflict with the Clean Air Plan, violate any air quality standard, result in a net increase of any criteria pollutant, or create objectionable odors affecting a substantial number of people. There would be no impacts.

d) <u>Less-than-significant Impact</u>

The project would generate a less-than-significant amount of pollutants during construction due to the short duration of construction. Temporary construction activities could expose sensitive receptors to substantial pollutant concentrations from the operation of construction equipment and traffic flow due to construction operations. The project would comply with construction standards adopted by the BAAQMD, as well as Caltrans-standardized project features for minimizing air pollutants during construction. Impacts would be less than significant. No mitigation is required.

3.2.4 Biological Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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 Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
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?	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR BIOLOGICAL RESOURCES

a) <u>Less-than-significant Impact with Mitigation Incorporated</u>

Special Status Plant Species

As detailed in the Plant Species, and Threatened and Endangered Species sections of Chapter 2, there are 57 special status plant species that were initially reviewed for potential to occur within the BSA. Of these, one federally listed plant species, the robust spineflower, and 13 rare plant species (California Rare Plant Rank 1A and 1B) have some potential to occur within the study area. These species include Anderson's manzanita, arcuate bush-mallow, bent-flowered fiddleneck, Dudley's lousewort, Kellman's bristle moss, Kings Mountain manzanita, legenere, Loma Prieta hoita, marsh microseris, Santa Cruz clover, western leatherwood, white-flowered rein orchid, and woodland woollythreads. Project features, including preconstruction surveys, would eliminate any impacts on these species.

Plant surveys of the project area were conducted 2 years in a row, during spring and fall blooming seasons, to determine if there were any special status plant species within the BSA. No robust spineflower individuals were observed and no impacts are anticipated. Only one special status species was discovered, the Santa Clara red ribbons, which is included in the CNPS Inventory of Rare and Endangered Plants. Project features, including preconstruction surveys and the use of temporary high-visibility fencing, would result in no anticipated impacts to the Santa Clara red ribbons.

Special Status Animal Species

As detailed in the Animal Species, and Threatened and Endangered Species sections of Chapter 2, 57 special status wildlife species were initially reviewed for potential to occur within the BSA. One federally listed species, the California red-legged frog has potential to occur within the project area, and one state candidate species, the foothill yellow-legged frog has low potential to be in the project area.

As further detailed in the Threatened and Endangered Species section of Chapter 2, the “Hybrid” alternative would result in approximately 0.24 acres of permanent impacts and 1.94 acres of temporary impacts to California red-legged frog habitat. The ABC Alternative would result in 1.68 acres of permanent impacts and 0.5 acres of temporary impacts to California red-legged frog habitat.

These impacts would be the result of activities like vegetation clearing, construction activities, new sources of shading over the creek caused from the wider bridge deck, construction of the TCAR Option 1, relocation of utilities, and the temporary creek crossing.

The project features, avoidance, and minimization measures outlined throughout Section 2.3 Biological Environment would be implemented to avoid and minimize effects on the California red-legged frog. Caltrans has agreed on mitigation for potential impacts to the California red-legged frog habitat with USFWS in the BO (see Appendix I). Riparian habitat is also used by the California red-legged frog. Mitigation has also been proposed for riparian habitat protected under Section 1600-1616 of the CFGC. These mitigation measures can be found in AMM BIO-3: Tree replacement, AMM BIO-4: Riparian habitat replacement ratio, and AMM BIO-9: California red-legged frog habitat replacement ratio.

The permanent impacts to aquatic habitat (removal of shade trees) may change biotic characteristics of the creek, but would not affect the California red-legged frog's ability to disperse along the creek corridor. In addition, the upland habitat that would be permanently impacted would be primarily restored following project construction, and would again provide upland dispersal habitat.

As detailed in Section 2.3.4 Animal Species, the following 16 additional special status wildlife species were also determined to have potential to occur within the BSA: California giant salamander, Santa Cruz black salamander, western pond turtle, Townsend's big-eared bat, pallid bat, western red bat, San Francisco dusky-footed woodrat, Central California Roach, riffle sculpin, white-tailed kite, long-eared owl, olive-sided flycatcher, purple martin, Vaux's swift, and yellow warbler. See Section 2.3.4 Animal Species for a more in-depth discussion of project impacts to these species.

The Townsend's big-eared bat, pallid bat, and western red bat may roost in the mature forest surrounding the project area, or in the bridge structure itself. Tree removal and construction activity may disrupt these roosts. Even with the project features, avoidance and minimization measures noted in Section 2.3.1 Natural Communities and in Section 2.3.5 Threatened and Endangered Species, minor, indirect impacts (e.g., temporary shifts in foraging patterns or territories, noise or light pollution) would remain possible.

Impacts to the western pond turtle are unlikely since the project footprint does not appear to have suitable nesting habitat. However, the species cannot be ruled out entirely because of the area's proximity to suitable habitat along Saratoga Creek. The project has the potential to directly impact western pond turtle individuals that are dispersing along Sanborn Creek. The placement of RSP for the "Hybrid" Alternative and removal of shade trees along the creek have the potential to permanently impact potential aquatic dispersal habitat. The project features, and avoidance and minimization measures proposed in Section 2.2.1 Water Quality and Stormwater management and all of Section 2.3 Biological Environment should be sufficient to avoid direct adverse effects to the western pond turtle.

The California giant salamander and the Santa Cruz black salamander have the potential to be directly impacted as they are dispersing along Sanborn Creek. Construction work on the creek banks, tree removal, the placement of the creek diversion, and the RSP proposed for the "Hybrid" Alternative have

the potential to impact this dispersal area. The project features, avoidance, and minimization measures proposed in Section 2.2.1 Water Quality and Stormwater Runoff and in all of Section 2.3 Biological Environment should be sufficient to avoid direct adverse effects to these species.

Suitable habitat for the California roach and riffle sculpin fish species appears to be present on site. The “Hybrid” Alternative would result in the permanent loss of 0.01 acres of aquatic habitat due to the placement of RSP. The removal of riparian shade trees would result in permanent impacts to potential suitable aquatic habitat for both alternatives. The use of the temporary creek diversion system would temporarily impact habitat for the fish in Sanborn Creek. Temporary, indirect impacts to the California roach and riffle sculpin may include generated noise, vibration, and potential erosion or sedimentation outside the project footprint. However, these impacts would be avoided or minimized with the use of project features, avoidance, and minimization measures discussed in Section 2.2.1 Water Quality and Stormwater Runoff Natural Communities and Section 2.3 Biological Environment. AMM BIO-7: Fish species relocation plan. specifically avoids impacts to fish species. Minor, indirect, impacts (e.g., temporary shifts in foraging patterns or territories, noise or light pollution) remain possible.

The project would remove mature trees that could provide suitable nesting for white-tailed kite and long-eared owl. However, based on the surrounding availability of mature trees, this would constitute only a minor, direct impact to habitat. No additional impacts would occur from operations and maintenance of SR-9 after completion of construction. Implementation of the project features, and avoidance and minimization measures discussed in Section 2.3.1 Natural Communities and Section 2.3.4 Animal Species would serve to avoid and minimize potential project-related impacts on the white-tailed kite and long-eared owl.

For the olive-sided flycatcher, purple martin, Vaux's swift, and yellow warbler, these native bird species could potentially nest within the forest or woodlands that occur in and adjacent to the study area. The use of construction equipment to remove vegetation within the project footprint has the potential to impact nesting birds, including migratory birds subject to the Migratory Bird Treaty Act and native birds protected under California Fish and Game Code, Section 3503, including causing nest abandonment and/or loss of eggs or young. Implementation of the project features, and avoidance and

minimization measures discussed in Section 2.3.1 Natural Communities and Section 2.3.4 Animal Species, including bird nesting surveys, would serve to avoid and minimize potential project-related impacts to all migratory and protected birds.

Overall Project Impacts

The project has potential impacts to the California red-legged frog. Caltrans proposed mitigation for impacts to California red-legged frog habitat. The project would have a less-than-significant impact, with mitigation incorporated, on this species which is identified as special status by the USFWS.

b) <u>Less-than-significant Impact with Mitigation Incorporated</u>

As detailed in Section 2.3.1 Natural Communities, tree removal and ground disturbance from project activities are anticipated, including the removal of riparian trees and habitat.

The “Hybrid” Alternative has the potential to permanently impact 0.05 acres and temporarily impact 1.94 acres of vegetated land (all land cover types except developed land and aquatic features). The permanent impacts would be to riparian forest and woodland. These impacts would result from replacement and installation of RSP, guardrail construction, and the widening of the new bridge deck.

The ABC Alternative has the potential to permanently impact 1.49 acres and temporarily impact 0.50 acres of vegetated land. This includes 1.39 acres of permanent impacts to riparian forest and woodland. These impacts would result from tree removal, general construction activity, the demolition of the existing bridge, the construction of a new bridge structure, the construction of the detour route, and the construction of the TCAR Option 1 that would remain for the 1-2 year duration of the project.

For both Alternatives, tree removal is anticipated for worker safety and construction access to the bridge. An estimated 344 trees fall within the work area and may be impacted by construction. See Section 2.3.1 Natural Communities for further detail on tree impacts. Tree removal would reduce shade cover over Sanborn Creek and could potentially result in higher water temperatures and increase soil erosion along the creek banks.

The project features, avoidance and minimization measures discussed in Section 2.1.4 Visual/Aesthetics, Section 2.3.1 Natural Communities, and Section 2.3.5 Threatened and Endangered Species would avoid and minimize impacts to riparian habitat. Additionally, Caltrans proposes to mitigate for permanent impacts to riparian habitat. This mitigation is described in AMM BIO-3: Tree replacement and, AMM BIO-4 Riparian habitat replacement ratio. A Caltrans biologist would implement this mitigation proposal; and the proposal is subject to change based on future coordination with resource agencies. Impacts to riparian habitat and sensitive natural communities would, therefore, be less than significant with mitigation incorporated.

c) <u>No Impact</u>

As detailed in Section 2.3.2 Wetlands and Other Waters, the only wetland that may be impacted by the project is Seep A. Less than 0.01 acres of wetland at Seep A has a potential for temporary impacts that may be caused by heavy construction equipment on Sanborn Road.

The project is likely to be appropriately permitted under a USACE nationwide permit. The impacts to federally protected wetlands, as defined by Section 404 of the Clean Water Act, are less than significant. No compensatory mitigation is proposed for the temporary and minimal permanent impacts to the USACE jurisdictional features. Standard project features outlined in Section 2.2.1 Water Quality and Stormwater Runoff, Section 2.3.1 Natural Communities, Section 2.3.2 Wetlands and Other Waters, and Section 2.3.5 Threatened and Endangered Species will be applied to avoid and minimize potential construction impacts. The following measures will also be applied: AMM WATER-1: Water treatment BMPs, AMM WATER-3: Stormwater Pollution prevention plan, and AMM WATER-4: Erosion prevention.

d) <u>No Impact</u>

This project would not permanently affect any migratory wildlife corridors, or the movement of any native resident or migratory fish or wildlife species. This project would not impede the use of native wildlife nursery sites.

<u>e) Less-than-significant Impact with Mitigation Incorporated</u>

This project would conflict with the Santa Clara County's Tree Preservation and Removal Ordinance. Specifically, the project would involve the trimming

and removal of protected trees, which are defined in Section 16-2 of this Ordinance. Trees as defined therein are protected and require a tree removal permit from Santa Clara County.

Caltrans would implement all reasonable and prudent project features to avoid and/or minimize impacts to protected trees; these features are explained in Section 2.3.1. Natural Communities.

Caltrans has proposed the following mitigation for impacts to riparian habitat AMM BIO-3: Tree replacement and AMM Bio-4: Riparian habitat replacement ratio.

f) <u>No Impact</u>

This project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Further, no such plans have been identified that affect the project vicinity. There would be no impact.

3.2.5 Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outsides of dedicated cemeteries?	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR CULTURAL RESOURCES

a) <u>Significant and Unavoidable</u>

As detailed in the Cultural Resources section in Chapter 2, the Saratoga Creek Bridge was determined eligible for listing in the NRHP and the CRHR, and is a historical resource under CEQA. This bridge would be removed or heavily altered for both build alternatives, thereby altering and removing characteristics that helped to qualify the historic property for the NRHP and CRHR. The project has a Finding of Adverse Effect on the historic bridge structure.

A Memorandum of Agreement (MOA) was prepared in coordination with a working stakeholder group that outlines the mitigation agreed to by Caltrans and SHPO. The MOA was approved by the SHPO on June 20, 2019. A Finding of Effect (FOE) was originally concurred on by the SHPO in April 26,

2018. A supplemental FOE was sent to the SHPO and concurred on June 6, 2019. The mitigation measures are outlined at the end of Section 2.1.5 Cultural Resources and in Appendix C: Avoidance, Minimization, and/or Mitigation Summary.

While these measure would be incorporated into the proposed project, given the fact that the bridge is a rare example of its type in the area, the measures would not reduce the proposed project's impacts to a level of no significance or less than significant for either of the project build alternatives. Therefore, the proposed project's impact to historical resources would still be significant and unavoidable for both build alternatives.

b) <u>No Impact</u>

One archaeological resource, a mid-century can/debris scatter was identified but is outside the project footprint. Therefore, there are no anticipated impacts to archeological resources.

c) <u>Less-than-significant Impact</u>

As explained in Section 2.2.3 Paleontology, there is low potential for any of the project alternatives to impact significant vertebrate, invertebrate, or plant fossils. Caltrans will require construction personnel to attend a mandatory paleontological resources awareness program to avoid and minimize any potential impacts to significant fossils.

d) <u>No Impact</u>

There are no known interred human remains within the project vicinity. If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archeologist can assess the significance of the find.

If Caltrans PQS determines that cultural materials include human remains, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains. Caltrans' Cultural Resources Studies Office will contact the Santa Clara County Coroner. Pursuant to CA PRC Section 5097.98, if the remains are determined by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendent. Caltrans' District 4 Cultural Resources Studies Office will

work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

3.2.6 Geology and Soils

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to 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?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒

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?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
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?	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR GEOLOGY AND SOILS

a, i, ii, iii, iv) <u>No Impact</u>

The project would not expose people or structures to the potential adverse effects involving the rupture of a known earthquake fault, strong seismic ground shaking, liquefaction, or landslides.

Moderate to large earthquakes are probable along several active faults in the project vicinity. Strong ground shaking should be expected at some point in time during the design life of both of the proposed build alternatives. The improvements would include design features that meet current earthquake-resistant standards. This would minimize existing hazards from strong ground shaking.

Liquefaction is not a concern for the build alternatives because the project area is in an area of low liquefaction susceptibility. There are no large-scale landslides mapped in the vicinity of the project area.

b) No Impact

There is a low erosion hazard of the soils present within the project limits. Where bedrock is exposed, there is no hazard of erosion. Due to the proposed deep foundations of the bridge build alternatives, the potential for differential soil compaction and shrink/swelling to impact the bridge is considered low.

c) No Impact

The project is not located on a geologic unit or soil that is unstable.

d) No Impact

The project is not located on expansive soil.

e) No Impact

The project would not use septic tanks or alternative wastewater disposal systems.

3.2.7 Greenhouse Gas Emissions

<table>
<tr><th>Would the project:</th><th>Significant and Unavoidable Impact</th><th>Less Than Significant with Mitigation Incorporated</th><th>Less Than Significant Impact</th><th>No Impact</th></tr>
<tr><td>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td><td colspan="4" rowspan="2">Caltrans has used the best available information based, to the extent possible, on scientific and factual information, to describe, calculate, or estimate the amount of greenhouse gas (GHG) emissions that may occur related to this project. The analysis included in the climate change section of this document provides the public and decision-makers as much information about the project as possible. It is Caltrans' determination that, in the absence of statewide-adopted thresholds or GHG emissions limits, it is too speculative to make a significance determination regarding an individual project's direct and indirect impacts with respect to global climate change. Caltrans remains committed to implementing measures to reduce the potential effects of the project. These measures are outlined in the climate change section that follows the CEQA checklist and related discussions.</td></tr>
<tr><td>b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td></tr>
</table>

3.2.8 Hazards and Hazardous Materials

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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 for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

CEQA Significance Determinations for Hazards and Hazardous Materials

a) Less-than-significant Impact

Construction vehicles and equipment may leak oils, grease, and other fluids. These and other fluids used for construction, have the potential to seep into the groundwater or be washed away by surface water runoff and make their way into Saratoga Creek. Caltrans will apply the requirements from the existing National Pollutant Discharge Elimination System permit and the

Construction General permit, along with standard BMPs for construction site management, to address hazardous waste from construction activities.

b, d) No Impact

As mentioned at the beginning of Chapter 2, Caltrans performed an initial site assessment to identify any potential sources of hazardous materials, waste, and substances in and adjacent to the project area. There were no potential sources of hazardous waste and/or materials found during this assessment.

c) No Impact

The project is not located within 0.25 mile of an existing or proposed school.

e, f) No Impact

The project is not located in an airport land use plan, and is not within 2 miles of a public airport or in the vicinity of a private airstrip.

g) No Impact

The project would not impair with the implementation of, or physically interfere with, an adopted emergency response or evacuation plan.

h) No Impact

The project would not expose people or structures to any risk involving wildland fires.

3.2.9 Hydrology and Water Quality

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR HYDROLOGY AND WATER QUALITY

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

No violations to any water quality standards or waste discharge requirements are anticipated. The project is also not situated within any major groundwater basin or subbasin. Therefore, there would be no impacts to groundwater supplies.

c, d, e) <u>Less-than-significant Impact</u>

As explained in the Water Quality and Stormwater Runoff section of Chapter 2, this project has approximately 0.45 acres of net new impervious surfaces for the “Hybrid” Alternative and 0.36 acres for the ABC Alternative. As a result of the wider bridge, a new drainage system may be required to accommodate the additional volume of rainwater collected from the increased bridge deck surface area. The new drainage system would be tied into the existing drainage systems. If the existing systems are determined to be inadequate, the existing system may be upgraded or expanded, including additional drainage inlets, as necessary, to help reduce the velocity of stormwater runoff from the road surface of SR-9. Drainage systems may include, but are not limited to, drainage inlets and gutters. The impacts to existing drainage patterns and stormwater runoff would be beneficial and, therefore, less than significant with no mitigation proposed.

f) <u>Less-than-significant Impact</u>

As explained in the Water Quality and Stormwater Runoff section of Chapter 2, both of the build alternatives would have similar potential construction impacts with the potential to degrade water quality. Soil erosion from clearing

and grubbing, riparian vegetation removal, excavation, backfilling, and general project features employed during construction can cause sediment deposit into Sanborn Creek. Further, construction vehicles and equipment may also leak oils, grease, and other fluids. These and other fluids used for construction, have the potential to seep into the groundwater or be washed away by surface water runoff and make their way into Saratoga Creek. Caltrans would apply the requirements from the existing National Pollutant Discharge Elimination System permit and the Construction General permit, along with standard BMPs for construction site management, to address soil erosion, stabilize disturbed soil areas, and maximize vegetated surface.

A temporary water detour/diversion system would be designed for the section of Sanborn Creek that would have construction activities taking place overhead. This would protect the creek from debris falling in during the demolition of the old bridge, for the ABC Alternative, for demolition of the old bridge deck for the “Hybrid” Alternative, and during construction of the new bridge elements for both build alternatives.

The standard project features and AMMs that are listed in Section 2.2.1 Water Quality and Stormwater Runoff would avoid and/or minimize potential project impacts.

g, h, i) <u>No Impact</u>

No floodplains are located in the project vicinity. Therefore, there would be no impacts related to any 100-year flood hazard areas, or flooding related to the failure of a levee or dam. There would be no encroachment to floodplains.

j) <u>No Impact</u>

The project is not located in an area that would be subject to inundation by seiche, tsunami, or mudflow.

3.2.10 Land Use and Planning

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

CEQA Significance Determinations for Land Use and Planning

a) <u>No Impact</u>

The project is located in a rural section of the Santa Cruz Mountains in Santa Clara County and would not, therefore, physically divide an established community.

b) <u>No Impact</u>

As explained at the beginning of Chapter 2, the replacement of the bridge with a similar structure would not affect or conflict with the types of land use existing or prevent future types of uses. The project is consistent with the following state, regional, and local plans and programs: California State Transportation Plan (State of California), Valley Transportation Plan 2040 (Santa Clara County), Santa Clara Countywide Bicycle Plan 2008 (Santa

Clara County), Santa Clara County General Plan 2010 (Santa Clara County), Santa Clara County Zoning Ordinance (Santa Clara County), and the Strategic Plan for the Santa Clara County Parks and Recreation System 2003 (Santa Clara County).

c) No Impact

This project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Further, no such plans have been identified that affect the project vicinity.

3.2.11 Mineral Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR MINERAL RESOURCES

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

As explained at the beginning of Chapter 2, the project area is not used for the mining of any mineral resources and is not planned for use as such in the Santa Clara County General Plan (1994). Therefore, the project would not impact mineral resources.

3.2.12 Noise

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR NOISE

a, b, d) <u>Less-than-significant Impact</u>

Section 2.5 Construction Noise Impacts discusses potential temporary construction noise impacts, project features to reduce potential temporary noise impacts, and proposed avoidance and minimization measures to address potential temporary noise impacts. Construction noise and vibration for both build alternatives would be temporary and periodic. Noise associated with construction is controlled by Caltrans Standard Specifications, Section 14-8.02, Noise Control and is not subject to local noise ordinances.

c) <u>No Impact</u>

As explained at the beginning of Chapter 2, there would be no anticipated permanent noise impacts as a result of this project.

e, f) <u>No Impact</u>

The project area is not located in an airport land use plan, and is not within 2 miles of a public airport or in the vicinity of a private airstrip.

3.2.13 Population and Housing

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

CEQA Significance Determinations for Population and Housing

a, b, c) <u>No Impact</u>

As explained at the beginning of Chapter 2, the rural nature of the area surrounding the project location means that the land parcels are very large, the population density is very low, and the surrounding land uses are not designated for residential. There are no communities in the project vicinity. The project proposes to replace the existing bridge in-kind, and would not change accessibility or induce growth. The project would not, therefore, result in project-related population growth, or displace substantial numbers of existing housing or people.

3.2.14 Public Services

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:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

CEQA Significance Determinations for Public Services

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

Construction of the project would not result in the provision of new or physically altered governmental facilities. The project also would not result in a need for new or physically altered governmental facilities, including fire protection, police protection, schools, parks, or other facilities.

3.2.15 Recreation

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☐	☒

CEQA Significance Determinations for Recreation

a) <u>No Impact</u>

The project would not result in an increase in the use of Sanborn County Park, the only existing neighborhood/regional park or recreational facility located in the vicinity of the project.

b) <u>No Impact</u>

No recreational facilities are proposed as part of this project, and the project would not require the construction of new recreational facilities or expansion of existing recreational facilities.

3.2.16 Transportation/Traffic

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

CEQA Significance Determinations for Transportation/Traffic

a, f) <u>No Impact</u>

The project is not in conflict with the following applicable and adopted plans, ordinances, and policies and programs regarding public transit, bicycle, or pedestrian facilities that establish measures of effectiveness for the performance of the circulation system: California State Transportation Plan (State of California), Valley Transportation Plan 2040 (Santa Clara County), Santa Clara Countywide Bicycle Plan 2008 (Santa Clara County), Santa Clara County General Plan 2010 (Santa Clara County), the Santa Clara

County Zoning Ordinance (Santa Clara County), and Santa Clara County Countywide Trails Master Plan Update 1995 (Santa Clara County).

The proposed Congress Springs Connector Trail and a section of the proposed Juan Bautista de Anza National Historic Trail bicycle route both run along SR-9 through the project area. These two trails are included under the Santa Clara County Countywide Trails Master Plan and the Juan Bautista de Anza National Historic Trail is also included in the Santa Clara Countywide Bicycle Plan.

Neither of the proposed alternatives would have permanent negative effects on the proposed trails and the build alternatives would have a moderately positive effect by providing slightly wider shoulders for cyclists and a bicycle railing across the bridge.

b) <u>No Impact</u>

The project is not in conflict with an applicable congestion management program. As explained in the Traffic and Transportation/Pedestrian and Bicycle Facilities section of Chapter 2, SR-9 has a capacity of 1,600 vehicles per hour in both directions. Current traffic is not expected to reach this capacity in the long range forecasting for SR-9. The route is not considered congested and vehicles are able to travel at the posted speed limit. The proposed project would not, therefore, impact the existing level of service for SR-9.

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

Both project build alternatives would keep the existing alignment and propose to widen the bridge deck. There would be no design changes that would affect the overall performance of SR-9.

3.2.17 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:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒

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.	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR TRIBAL CULTURAL RESOURCES

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

No tribal cultural resources have been identified within the project vicinity.

3.2.18 Utilities and Service Systems

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

e) 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

CEQA SIGNIFICANCE DETERMINATIONS FOR UTILITIES AND SERVICE SYSTEMS

a) <u>No Impact</u>

The project is not expected to exceed wastewater treatment requirements of the San Francisco Bay (Region 2) Regional Water Quality Control Board.

b) <u>No Impact</u>

The project does not require or result in the construction of new water or wastewater treatment facilities, or the expansion of existing facilities.

c) <u>Less-than-significant Impact</u>

As explained in the Water Quality and Stormwater Runoff section of Chapter 2, this project has less than one acre of net new impervious surface for either alternative. As a result of the wider bridge, a new drainage system may be required to accommodate the additional volume of rainwater collected from the increased bridge deck surface area. The new drainage system would be tied into the existing drainage systems. If the existing systems are determined

to be inadequate, the existing system may be upgraded or expanded, including additional drainage inlets, as necessary to help reduce the velocity of stormwater runoff from the road surface of SR-9. Drainage systems may include, but are not limited to, drainage inlets and gutters. The construction of new water or wastewater treatment facilities, or expansion of existing facilities, would be beneficial, and would, therefore, be a less-than-significant impact with no mitigation proposed.

d) No Impact

The project does not require water supplies to serve the project from existing entitlements or where the project would impact new or expanded entitlements.

e) No Impact

The project does not require the services of a wastewater treatment provider where the project would impact the capacity of the provider.

f) No Impact

The project does not require the services of a landfill where the project would impact the capacity of a landfill.

g) No Impact

The project is expected to comply with federal, state, and local statutes and regulations related to solid waste**.**

3.2.19 Mandatory Findings of Significance

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to 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?	☒	☐	☐	☐
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)?	☐	☐	☐	☒

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

CEQA SIGNIFICANCE DETERMINATIONS FOR MANDATORY FINDINGS OF SIGNIFICANCE

a) <u>Significant and Unavoidable Impact</u>

The project would have significant and unavoidable impacts on cultural resources for both project build alternatives. This is discussed in the Section 2.1.5 Cultural Resources with the adverse impact on the historic Saratoga Creek Bridge due to its loss of historical standing as a result of modification under the “Hybrid” Alternative or its removal under the ABC Alternative. There are no mitigation measures to reduce this impact to a less-than-significant level.

b) <u>No Impact</u>

As discussed in Section 2.4 Cumulative Impacts, the proposed project would not contribute to cumulatively significant impacts.

c) <u>Less-than-significant Impact</u>

The proposed project would have a less-than-significant impact on human beings, either directly or indirectly. Potential sources of impacts may be traffic impacts to highway users on SR-9 and adjacent property and business owners.

3.3 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to GHG emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization, in 1988, has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) are the largest contributors of GHG emissions. The dominant GHG emitted is CO_2, mostly from fossil fuel combustion.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” “Greenhouse gas mitigation” is a term for reducing GHG emissions to reduce or mitigate the impacts of climate change. “Adaptation” refers to planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).

REGULATORY SETTING

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been

enacted specifically to address climate change and GHG emissions reduction at the project level.

NEPA (42 USC Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

FHWA recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA, therefore, supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices.[23] This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability."[24] Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life. Addressing these factors up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. Some of these efforts are described in the following paragraphs.

The Energy Policy Act of 1992 (EPACT92, 102nd Congress H.R.776.ENR): With this act, Congress set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. EPACT92 consists of 27 titles, detailing various measures designed to lessen the nation's dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light-duty, alternative-fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the Program

[23] https://www.fhwa.dot.gov/environment/sustainability/resilience/
[24] https://www.sustainablehighways.dot.gov/overview.aspx

is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020.

Energy Policy Act of 2005 (109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) Indian energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Standards: This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy program, on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, 74 *Federal Register* 52117 (October 8, 2009): This federal EO sets sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. It instituted as policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities.

EO 13693, *Planning for Federal Sustainability in the Next Decade*, 80 Federal Register 15869 (March 2015): This EO reaffirms the policy of the United States that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities. It sets sustainability goals for all agencies to promote energy conservation, efficiency, and management by reducing energy consumption and GHG emissions. It builds on the adaptation and resiliency goals in previous EOs to ensure agency operations and facilities prepare for impacts of climate change. This order revokes EO 13514.

U.S. Environmental Protection Agency's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts* v. *EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act, and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare.

Responding to the Court's ruling, EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions.

EPA, in conjunction with the National Highway Traffic Safety Administration (NHTSA), issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010[25], and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards required these vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles, for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules' long timeframe, a mid-term evaluation is included in the rule. The mid-term evaluation is the overarching process by which NHTSA, EPA, and ARB will decide on Corporate Average Fuel Economy and GHG emissions standard stringency for model years 2022–2025. NHTSA has not formally adopted standards for model years 2022 through 2025. However, the U.S. EPA finalized its mid-term review in January 2017, affirming that the target fleet average of at least 54.5 miles per gallon by 2025 was appropriate. In March 2017, President Trump ordered EPA to reopen the review and reconsider the mileage target.[26]

NHTSA and EPA issued a Final Rule for "Phase 2" for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO_2 emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

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[25]] http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq

[26] http://www.nbcnews.com/business/autos/trump-rolls-back-obama-era-fuel-economy-standards-n734256 and https://www.federalregister.gov/documents/2017/03/22/2017-05316/notice-of-intention-to-reconsider-the-final-determination-of-the-mid-term-evaluation-of-greenhouse

Presidential EO 13783, *Promoting Energy Independence and Economic Growth*, of March 28, 2017, orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

State

With the passage of legislation, including state senate and assembly bills and EOs, California has been innovative and proactive in addressing GHG emissions and climate change.

AB 1493, Pavley Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of AB 32 in 2006 and SB 32 in 2016.

AB 32, Chapter 488, 2006: Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that CARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code Section 38551(b)). The law requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency and state agencies with regard to climate change.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. CARB re-adopted the low carbon fuel standard regulation in September 2015,

and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

SB 97, Chapter 185, 2007, Greenhouse Gas Emissions: This bill requires the Governor's Office of Planning and Research to develop recommended amendments to the CEQA Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires CARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a “Sustainable Communities Strategy” that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the state’s long-range transportation plan to meet California’s climate change goals under AB 32.

EO B-16-12 (March 2012): This EO orders state entities under the direction of the Governor, including CARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015): This EO establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent ($MMTCO_2e$). Finally, it requires the Natural Resources Agency to update the state’s climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32 Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

ENVIRONMENTAL SETTING

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required CARB to develop a scoping plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020. The scoping plan was first approved by CARB in 2008 and must be updated every 5 years. CARB approved the *First Update to the Climate Change Scoping Plan* on May 22, 2014. CARB is moving forward with a discussion draft of an updated scoping plan, which will reflect the 2030 target established in EO B-30-15 and SB 32.

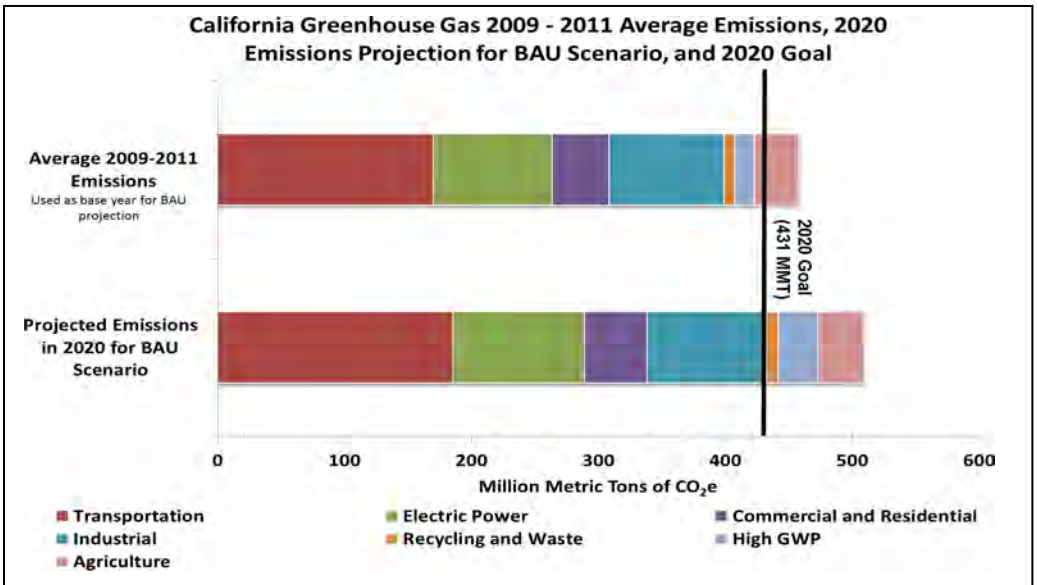
The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the draft scoping plan, CARB released the GHG inventory for California.[27] CARB is responsible for maintaining and updating California's GHG Inventory per H&SC Section 39607.4. The associated forecast/projection is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the scoping plan were implemented.

An emissions projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided in Figure 3-1 represent a business-as-usual (BAU) scenario, assuming none of the scoping plan measures are implemented. The 2020 BAU emissions estimate assists CARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO2e[28]. The 2017 edition of the GHG emissions inventory (released June 2017) found total California emissions of 440.4 MMTCO_2e, showing progress towards meeting the AB 32 goals.

[27] 2016 Edition of the GHG Emission Inventory Released (June 2016): https://www.arb.ca.gov/cc/inventory/data/data.htm

[28] The revised target using Global Warming Potentials from the IPCC Fourth Assessment Report (AR4).

The 2020 BAU emissions projection was revisited in support of the first update to the scoping plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand, as well as other factors. It also accounts for the effects of the 2008 economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario include reductions anticipated from Pavley I and the Renewable Electricity Standard (30 $MMTCO_2e$ total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 $MMTCO_2e$.



https://www.arb.ca.gov/cc/inventory/data/bau.htm

Figure 3-1: 2020 BAU Emissions Projection 2014 Edition

PROJECT ANALYSIS

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.[29] In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively

[29] This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130). To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

GHG emissions for transportation projects can be divided into those produced during operations and those produced during construction. The following represents a best faith effort to describe the potential GHG emissions related to the proposed project.

OPERATIONAL EMISSIONS

The purpose of the project is to maintain safe and stable connectivity along SR-9 between the City of Saratoga in Santa Clara County and the community of Felton in Santa Cruz County. The need for this project is due to the structural and seismic deficiencies in the existing Saratoga Creek Bridge. These deficiencies are a cause for concern for the bridge's future ability to continue providing reliable traffic service.

The project would not induce more traffic, add travel lanes, or increase the roadway capacity of SR-9, which would remain a two-lane conventional highway. As discussed in Section 2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities, none of the project alternatives would change the long-term capacity of this stretch of SR-9. As such, the project is not expected to result in an increase in operational GHG emissions.

CONSTRUCTION EMISSIONS

Construction GHG emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations, such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Based on the available project information, the construction-related CO_2 emissions were calculated using the Road Construction Emissions Model, version 8.1.2, provided by the Sacramento Metropolitan Air Quality Management District.

The “Hybrid” Alternative is expected to take one year to construct. This alternative would result in an estimated 141.77 tons of CO_2, 0.02 tons of CH_4, and no N_2O under the Full Closure traffic management strategy. The total resulting CO2e would be 130.57 metric tons. An estimated 211.02 tons of CO_2, 0.04 tons of CH_4, and no N_2O would be produced under the Temporary Detour Road traffic management strategy. The total resulting CO2e would be 193.97 metric tons.

The ABC Alternative is expected to take 1-2 years to construct. This alternative would result in an estimated 3169.86 tons of CO_2, 0.04 tons of CH_4, and 0.01 tons of N_2O under the Full Closure traffic management strategy. The total resulting CO2e would be 290.81 metric tons. An estimated 335.41 tons of CO_2, 0.05 tons of CH_4, and 0.01 tons of N_2O would be produced under the Temporary Detour Road traffic management strategy. The total resulting CO2e would be 307.65 metric tons.

The No Build Alternative would not result in the construction of the project and, therefore, would not result in construction emissions.

Although the build alternatives would result in a temporary increase in CO_2 emissions, all work is required to be performed in accordance with Caltrans Standard Specification 7-1.02C, Emissions Reduction. This standard specification would require the contractor to comply with all CARB emissions reductions regulations before commencing the performance of the work, and maintain compliance throughout the duration of the contract. All construction contracts also include Caltrans Standard Specification 14-9.02, Air Pollution Control, which requires the contractor to comply with air-pollution-control rules, regulations, ordinances, and statutes that apply to work performed under the contract. To the extent that such requirements reduce the emissions of GHGs (such as by restricting equipment idling time), they help reduce construction GHG emissions.

CEQA Conclusion

Greenhouse Gas Reduction Strategies

Statewide Efforts

In an effort to further the vision of California's GHG reduction targets outlined in AB 32 and SB 32, Governor Brown identified key climate change strategy pillars (concepts, shown in Figure 3-2). These pillars highlight the idea that several major areas of the California economy will need to reduce emissions to meet the 2030 GHG emissions target. These pillars are: (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

Figure 3-2: The Governor's Climate Change Pillars: 2030 GHG Reduction Goals

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that we build on our past successes in reducing criteria and toxic air pollutants from transportation and goods movement activities. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled. One of Governor Brown's key pillars sets the ambitious goal of

reducing today's petroleum use in cars and trucks by up to 50 percent by 2030.

Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon. These lands have the ability to remove CO_2 from the atmosphere through biological processes, and to then sequester carbon in above- and below-ground matter.

CALTRANS ACTIVITIES

Caltrans continues to be involved on the Governor's Climate Action Team as the CARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016) set a new interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal transportation system. It serves as an umbrella document for all of the other statewide transportation planning documents.

SB 391(Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While metropolitan planning organizations have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in pricing, transportation alternatives, mode shift, and operational efficiency.

Caltrans Strategic Management Plan

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing vehicle miles traveled per capita
- Reducing Caltrans internal operational (buildings, facilities, and fuel) GHG emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several funding and technical assistance programs that have GHG reduction benefits. These include the Bicycle Transportation Program, Safe Routes to School, Transportation Enhancement Funds, and Transit Planning Grants. A more extensive description of these programs can be found in *Caltrans Activities to Address Climate Change* (2013).

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a department policy that will ensure coordinated efforts to incorporate climate change into departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce GHG emissions resulting from agency operations.

PROJECT-LEVEL GHG REDUCTION STRATEGIES

The following project features would also be implemented to reduce GHG emissions and potential climate change impacts from the project.

- In accordance with Caltrans Standard Specification 7-1.02C, the contractor must comply with all CARB emissions reductions regulations.
- In accordance with Caltrans Standard Specification 14-9.02, the contractor must comply with all Bay Area Air Management District air-pollution-control rules, regulations, ordinances, and statutes that apply to the work performed for this project.

- In accordance with 13 California Code of Regulations Section 2485, this regulation would restrict idling of diesel-fueled construction vehicles to no longer than 5 consecutive minutes at any location.
- Areas where vegetation removal has occurred would be replanted as soon as those areas are no longer needed for construction activities. The replanted trees would help remove CO_2 from the atmosphere.
- To the extent feasible, construction traffic would be scheduled and routed to reduce congestion and related climate change impacts caused by idling vehicles along local roads during peak travel times.
- To the extent that is practicable for this project, the use of reclaimed water may be used during construction to reduce GHG emissions. Currently, 30 percent of the electricity used in California is used for the treatment and delivery of water. Use of reclaimed water helps conserve this energy, which reduces GHG emissions from electricity production.

ADAPTATION STRATEGIES

"Adaptation strategies" refer to how Caltrans and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage—or, put another way, planning and design for resilience. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensities, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increased storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. These types of impacts to the transportation infrastructure may also have economic and strategic ramifications.

Federal Efforts

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the CEQ, the Office of Science and Technology Policy, and the National Oceanic and Atmospheric Administration, released its interagency task force

progress report on October 28, 2011[30], outlining the federal government's progress in expanding and strengthening the nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provided an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as fresh water, and providing accessible climate information and tools to help decision-makers manage climate risks.

The federal Department of Transportation (DOT) issued *U.S. DOT Policy Statement on Climate Adaptation* in June 2011, committing to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely and that transportation infrastructure, services and operations remain effective in current and future climate conditions."[31]

To further the DOT Policy Statement, in December 15, 2014, FHWA issued order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*).[32] This directive established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA will work to integrate consideration of these risks into its planning, operations, policies, and programs in order to promote preparedness and resilience; safeguard federal investments; and ensure the safety, reliability, and sustainability of the nation's transportation systems.

FHWA has developed guidance and tools for transportation planning that fosters resilience to climate effects and sustainability at the federal, state, and local levels.[33]

State Efforts

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30 https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/resilience

31 https://www.fhwa.dot.gov/environment/sustainability/resilience/policy_and_guidance/usdot.cfm

32 https://www.fhwa.dot.gov/legsregs/directives/orders/5520.cfm

33 https://www.fhwa.dot.gov/environment/sustainability/resilience/

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California's vulnerability to sea-level rise (SLR) caused by climate change. This EO set in motion several agencies and actions to address the concern of SLR and directed all state agencies planning to construct projects in areas vulnerable to future SLR to consider a range of SLR scenarios for the years 2050 and 2100, assess project vulnerability, and, to the extent feasible, reduce expected risks and increase resiliency to SLR. Sea-level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, and storm surge and storm wave data.

Governor Schwarzenegger also requested the National Academy of Sciences to prepare an assessment report to recommend how California should plan for future SLR. The final report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington* (Sea-Level Rise Assessment Report)[34] was released in June 2012 and included relative SLR projections for the three states, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates; and the range of uncertainty in selected SLR projections. It provided a synthesis of existing information on projected SLR impacts to state infrastructure (such as roads, public facilities, and beaches), natural areas, and coastal and marine ecosystems; and a discussion of future research needs regarding SLR.

In response to EO S-13-08, the California Natural Resources Agency, in coordination with local, regional, state, federal, and public and private entities, developed *The California Climate Adaptation Strategy* (Dec 2009),[35] which summarized the best available science on climate change impacts to California, assessed California's vulnerability to the identified impacts, and outlined solutions that can be implemented within and across state agencies to promote resiliency. The adaptation strategy was updated and rebranded in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan).

[34] *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: http://www.nap.edu/catalog.php?record_id=13389.

[35] http://www.climatechange.ca.gov/adaptation/strategy/index.html

Governor Jerry Brown enhanced the overall adaptation planning effort by signing EO B-30-15 in April 2015, requiring state agencies to factor climate change into all planning and investment decisions. In March 2016, sector-specific Implementation Action Plans that demonstrate how state agencies are implementing EO B-30-15 were added to the Safeguarding California Plan. This effort represents a multi-agency, cross-sector approach to addressing adaptation to climate change-related events statewide.

EO S-13-08 also gave rise to the *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance), produced by the Coastal and Ocean Working Group of the California Climate Action Team, of which Caltrans is a member. First published in 2010, the document provided "guidance for incorporating SLR projections into planning and decision making for projects in California," specifically, "information and recommendations to enhance consistency across agencies in their development of approaches to SLR." The March 2013 update[36] finalizes the SLR Guidance by incorporating findings of the National Academy's 2012 final SLR assessment report; the policy recommendations remain the same as those in the 2010 interim SLR Guidance. The guidance will be updated as necessary in the future to reflect the latest scientific understanding of how the climate is changing and how this change may affect the rates of SLR.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation, and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is actively engaged in in working towards identifying these risks throughout the state and will work to incorporate this information into all planning and investment decisions as directed in EO B-30-15.

The proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

[36] http://www.opc.ca.gov/2013/04/update-to-the-sea-level-rise-guidance-document/

Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and identify potential impacts and avoidance, minimization, and/or mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, and a public scoping meeting.

This chapter summarizes the results of Caltrans efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

4.1 Scoping Process

4.1.1 Notice of Preparation

On April 1, 2016, a Notice of Preparation (NOP) for a Draft EIR was distributed to the State Clearinghouse; elected officials; local, regional, and state agencies; and public stakeholders (Caltrans 2016). The NOP was published by the State Clearinghouse on April 5, 2016, in compliance with CEQA (the California State Clearinghouse number is 2016042012) and by the Santa Clara County Office of the County Clerk-Recorder, initiating the 30-day agency scoping period. A copy of the NOP can found in Appendix E: Notice of Preparation. The list of agencies, organizations, and elected officials contacted during the scoping process can be found in Chapter 6: Distribution List.

Caltrans included members of the public in the scoping process to identify potential interested parties and engage the community in project planning. A newspaper advertisement announcing the scoping period and the public open house scoping meeting was posted in the *San Jose Mercury News* on Wednesday, April 13, 2016. Caltrans provided a mailing address and email address for members of the public to request a copy of the NOP and for

submittal of comments on the proposed project. (Caltrans 2016). The NOP was also posted on the Caltrans District 4 website's project page on April 25, 2016.

4.1.2 Scoping Meetings

Scoping meetings were held for interested agencies and members of the public. The following meeting notifications, under 4.1.2.1 Public Scoping Meeting below, were sent.

4.1.2.1 Public Scoping Meeting

A project public scoping meeting was held on Thursday April 21, 2016, from 6:00 p.m. to 8:00 p.m. at Saratoga Prospect Center, 19848 Prospect Road in Saratoga, California. The meeting was held to provide information regarding the project, and allow members of the public to ask questions and provide comments on the proposed project. The following notifications were sent out to invite the public to the scoping meeting:

- Letter distribution on NOP sent via U.S. Postal Service to agency recipients on April 1, 2014.
- Email distribution regarding public scoping notification sent to local municipal and county agencies on April 13, 2016.
- Newspaper advertisement published the public scoping notification in San *Jose Mercury News* for public recipients on April 13, 2016.
- Fliers with public scoping notification posted at the Sanborn County Park and Local Municipal offices (public recipients) on April 2016.

Caltrans project personnel attended the meeting to address questions and concerns. Project personnel consisted of experts in the fields of architecture, environmental policy, architectural history, structural seismology, and engineering. Meeting attendees were encouraged to approach the specialists with questions and for clarification of concerns. Comments in writing were encouraged for submittal during the meeting because no court reporter was present. Attendees were also encouraged to send comments via post mail and email.

A sign-in sheet was used at the meeting to record public attendance; 10 people attended the meeting. The meeting was conducted in an open house format with informational fliers and poster boards that highlighted the different alternatives, existing conditions, and concerns triggering the project.

4.1.2.2 Local Agency Scoping Meeting

The following agencies were invited to comment on the scope of the project:

- The San Francisco Regional Water Quality Control Board
- Sanborn County Park and Recreational Department
- Santa Clara County Roads and Airports Department
- California Department of Fish and Wildlife
- United States Fish and Wildlife Service
- United States Army Corps of Engineers
- California Native American Heritage Commission
- California Transportation Commission
- City of Saratoga
- Town of Los Gatos
- City of Monte Sereno
- City of Santa Clara

Caltrans distributed an email announcement for a local agency scoping meeting on March 24, 2016, at 101 Skyport Dr., San Jose, Training Room. The local agency scoping meeting occurred on March 24, 2016 from 2:00 p.m. – 4:00 p.m. Representatives from the Santa Clara County Parks Department, Santa Clara County Roads and Airports Department, and Sanborn County Park were in attendance. The purpose of the meeting was to do early coordination with local agencies ahead of the formal scoping process. Caltrans presented the project, the environmental process, and the alternatives proposed for the scoping phase. Caltrans gathered feedback on local agency concerns and suggestions.

Results of the meeting included the following key points:

- Traffic delays from construction along SR-9 were a concern, especially during the summer tourist and wedding season.

- The local county Habitat Conservation Plan was suggested for potential mitigation.
- Access to Sanborn Road needed to be kept open for Sanborn County Park. RV's and trailers needed to be able to access the park as well.

This information was used to inform the project design process and provide a focus for the environmental studies.

4.1.2.3 Interagency Field Meeting

An interagency field meeting at the project site was scheduled for May 6, 2016, from 11:00 a.m. – 1:00 p.m. Representatives from the State RWQCB, USACE, USFWS, CDFW, and NMFS were invited. Representatives from USACE and the RWQCB attended the meeting. Caltrans presented the three build alternatives considered, including the alignments and access road alternatives.

Agencies provided input and comments during the field meeting. The discussion included conversations on the potential for riparian zone to be impacted, potential permanent impacts to listed species and protected habitats, potential hydraulic issues, potential jurisdictional features, mitigation potential, and additional stormwater-related issues.

Results of the meeting included the following key points:

- There is a need for avoidance, minimization, and mitigation.
- There was a recommendation to provide a very clear need for the project, and a very strong justification for the chosen alternative.
- The RWQCB favored an alignment that results in the least impact to the creek, wetlands, riparian vegetation, species, etc. (the LEDPA); RWQCB suggested keeping the bridge on the current alignment (subject to the LEDPA), and closing the roadway to allow Caltrans to complete the project faster.
- USACE favored keeping the current alignment and keeping the bridge open during construction.

- USACE and RWQCB favored moving the foundation of the new bridge's abutments as far away from the riverbank as possible.
- RWQCB required standard water quality best management practices must be followed.
- USACE recommended looking at mitigation and analyzing major temporal and permanent impacts early.
- USACE indicated that onsite mitigation would be preferable.

4.1.2.4 Landowner Scoping Meeting

A landowner scoping meeting was held on May 12, 2016, at the Saratoga Senior Center from 7:00 p.m. – 8:00 p.m. at 19655 Allendale Ave., in Saratoga, California. The purpose of the meeting was to introduce the project and conduct an evaluation of the project's neighbor concerns.

Attendees were notified of the meeting by letters that were sent via postal mail to each resident that had an address adjacent to the project are, as well as the start and end points of the traffic management area. A total of 22 landowners were contacted. A project fact sheet and location map were attached to each letter.

Twelve Caltrans staff members and nine adjacent landowners were present at the meeting. Meeting handouts included a project fact sheet and agenda. The meeting began with attendees investigating the display boards with information on project alternatives, and attendees writing down questions for the Q&A session. Following sign-in and project board review, Caltrans provided presentations on the project overview, project alternatives, environmental review process, seismic testing of the bridge, seismic retrofit of the bridge, record of project impact concerns from adjacent landowners, impact concerns to historic resources, and water quality concerns and temporal restrictions on the construction season. Following the presentations, a Q&A session with the project development team was held.

During the meeting, attendees were asked to rate their top three concerns, and a concerns list and ranking were tallied. Out of a total of 24 votes, the top 5 concerns were: relocating bridge north: impacts on business, financial loss

from construction, traffic detour congestion, impacts to residences with south alignment, and visual value of the bridge: retention.

After the meeting, a thank you email was sent to all attendees. These comments have been taken into account during the environmental design process. The focus of the project development team has been on reducing construction time, minimizing traffic impacts, and finding ways to retain the look and feel of the original bridge structure.

4.2 Consultation and Coordination with Public Agencies and Organizations

Consultation with several agencies and organizations occurred during the environmental evaluation process. The following federal, state, regional, and local agencies were consulted prior to issuance of the NOP, during preparation of the environmental document and technical reports, and during the finalization process for the environmental document. A list of meetings and communications conducted thus far with local elected officials and public agency staff members is provided in Table 4-1. This list is not all-inclusive.

Table 4-1: Agency Coordination Meetings and Contacts

Organization	Date	Topic
Native American Tribes (Amah Mutsun Tribal Band of Mission San Juan Bautista, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Tribe of the SF Bay Area, the Ohlone Indian Tribe, North Valley Yokuts Tribe)	August 25, 2015	Discussed project scope and potential archaeological resources within the project vicinity.
Santa Clara County Parks, Santa Clara County R&A Maintenance, Santa Clara County Roads Department Traffic Section, and Sanborn County Park	March 24, 2016	Local agency scoping meeting.
RWQCB, Sanborn County Park, Santa Clara County Parks, CDFW, USFWS, USACE, Cal. Native Heritage Commission	April 5, 2016	Notice of Preparation distribution.
NMFS	April 12, 2016	Caltrans contacted NMFS regarding downstream fish passage barriers. NMFS concurred that downstream barriers preclude anadromous steelhead from accessing the upstream reach of the creek, and that the site does not support critical habitat.
Santa Clara County Parks	May 3, 2016	Santa Clara County Parks submitted a comment letter on the NOP.

Table 4-1: Agency Coordination Meetings and Contacts

Organization	Date	Topic
USACE & RWQCB	May 6, 2016	Interagency field meeting at the project site to discuss project alternatives and gather feedback and comments from agencies.
CDFW	May 24, 2016	Caltrans contacted CDFW regarding mitigation needs for the project. CDFW stated that Saratoga Creek is not a high priority for anadromous fish passage under any recovery plan.
USFWS	June 5, 2016	Caltrans obtained an official species list.
USACE	June 6, 2016	Field delineation to identify potentially jurisdictional wetlands and Waters of the U.S.
USFWS	August 22, 2016	Caltrans requested technical assistance from the USFWS.
NMFS	August 23, 2016	List of potential protected species obtained from NMFS to determine if there were any FESA protected species within the biological study area.
NMFS	August 24, 2016	Caltrans contacted NMFS regarding resident rainbow trout in Sanborn Creek. NMFS confirmed that the presence of resident trout was consistent with their understanding of the creek and that NMFS would not expect consultation.

Table 4-1: Agency Coordination Meetings and Contacts

Organization	Date	Topic
USFWS	October 21, 2016	Caltrans conducted a site visit with USFWS. It included a discussion of the site, the potential for California red-legged frog and robust spineflower to be present on-site, and a discussion of the timeline for the biological assessment.
Santa Clara County Parks	November 30, 2016	Caltrans provided a project update.
Santa Clara County Parks	December 16, 2016	Caltrans contacted Santa Clara County Parks to confirm trail locations.
Santa Clara County Parks	December 31, 2016	Caltrans contacted Santa Clara County Parks about trailhead use near intersection with SR-9.
Santa Clara County Parks	January 6, 2017	Discussion of potential impacts to current and future trails in the Santa Clara County Park System.
Santa Clara County Parks	July 26, 2017	Caltrans provided a project update.
Santa Clara County Parks	November 29, 2017	Caltrans contacted Santa Clara County Parks about “no use” determination under Section 4(f).
USFWS	February 23, 2018	Caltrans submitted the Biological Assessment (BA).
Santa Clara County Parks	April 13, 2018	Caltrans consultation on Santa Clara County Parks’ preference for bicycle facilities on trails.
USFWS	March 7, 2018	USFWS submitted a 30-day letter on the BA.

Table 4-1: Agency Coordination Meetings and Contacts

Organization	Date	Topic
CDFW	March 14, 2018	CDFW submitted a comment letter on the DED.
MOA Stakeholder Group (Santa Clara County Dept. of Planning & Development, Santa Clara County Historical Heritage Commission, Santa Clara County Park & Rec. Dept., Saratoga Historical Foundation, History San Jose, San Jose Library, California Preservation Foundation, and Preservation Action Council of San Jose)	March 22, 2018	Initial discussion of proposed mitigation for Cultural impacts to the historic bridge. This mitigation would be proposed in the MOA sent to the SHPO.
SHPO	March 29, 2018	Submitted the FOE.
SHPO	April 26, 2018	Received concurrence on the FOE.
USFWS	May 4, 2018	Caltrans received the BO.
Santa Clara County Parks	May 8, 2019	Caltrans provided a project update.
Santa Clara County Sheriff's Department	October 16, 2018	Discussion of potential traffic management impacts to emergency services.
Santa Clara County Fire Department	November 1, 2018	Discussion of potential traffic management impacts to emergency services.
California State Assembly member Evan Low	June 29, 2018	Provided Assembly member Low with information about the project and discussion of potential impact concerns for adjacent property and business owners.

Table 4-1: Agency Coordination Meetings and Contacts

Organization	Date	Topic
MOA Stakeholder Group (Santa Clara County Dept. of Planning & Development, Santa Clara County Historical Heritage Commission, Santa Clara County Park & Rec. Dept., Saratoga Historical Foundation, History San Jose, San Jose Library, California Preservation Foundation, and Preservation Action Council of San Jose)	April 18, 2019	Draft of MOA sent to stakeholder group for comment before being sent to the SHPO.
CDFW	April 25, 2019	Caltrans emailed the CDFW to inform them that a preferred alternative had been chosen and regarding extending the work window for work in the creek banks. CDFW recommended working with the agency prior to finalization of the 1602 permit on specific seasonal avoidance measures.
SHPO	May 6, 2019	Submitted the supplemental FOE.
USFWS	June 5, 2019	Caltrans emailed the USFWS to inform them that a preferred alternative had been chosen, and with questions regarding the wording of the project's vegetation removal avoidance and minimization measure, and potential work window extensions.
SHPO	June 6, 2019	Received concurrence on the supplemental FOE.

Table 4-1: Agency Coordination Meetings and Contacts

Organization	Date	Topic
SHPO	June 7, 2019	Submitted the MOA.

4.2.1 U.S. Army Corps of Engineers

A Section 404 permit is necessary when a project will result in fill to Waters of the U.S. under USACE jurisdiction. The proposed project would result in permanent and temporary impacts to water features within the project area, as discussed in Section 2.3.2 Wetlands and Other Waters. Caltrans coordination with USACE has included an interagency field meeting at the proposed project area, discussion of project plan and alternatives, and updates regarding project alternatives and considerations. A list of meetings conducted thus far with USACE is provided in Table 4-1.

The USACE has stressed the importance of using avoidance, minimization, and mitigation measures to reduce and avoid impacts to the maximum extent practicable. The USACE also indicated that an alternative that kept the current alignment would be favorable over a realignment of SR-9 and that mitigation onsite would be preferrable to offsite mitigation. Any project features left onsite longer than one year would be considered a permanent impact, even if they were temporary construction features. USACE would also prefer to see an alternative where the central pier was moved further from the creek channel than the existing.

4.2.2 San Francisco Regional Water Quality Control Board, Region 2

A Section 401 Water Quality Certification is necessary when a project requires a federal license or permit that may result in a discharge to a water of the U.S. Because the proposed project will require a 404 permit, a 401 Water Quality Certification from the San Francisco RWQCB, Region 2, will also be required. Section 2.2.1 Water Quality and Stormwater Runoff discusses these potential impacts.

Caltrans coordinated with the Water Board to become a responsible agency on the project. The Water Board responded by email on April 15, 2016, with

agreement to act as a responsible agency under CEQA for the project. Additional Caltrans coordination with the San Francisco RWQCB has included an interagency field meeting, discussions on project alternatives, and updates regarding project alternatives and considerations. A list of meetings conducted with the RWQCB is provided in Table 4-1. The RWQCB has expressed similar concerns and recommendations about the project to those expressed by the USACE.

4.2.3 U.S. Fish and Wildlife Service

Caltrans initiates consultation with the USFWS when a project has the potential to affect a federally listed species, as discussed in Section 2.3.5 Threatened and Endangered Species. Caltrans' formal consultation with USFWS under FESA is documented in the BO issued for the project for the California red-legged frog, pursuant to Section 7 of the FESA, from USFWS on May 4, 2018.

Caltrans' coordination with USFWS has included discussion and correspondence regarding the proposed project and alternatives and technical assistance regarding species to consider in the analysis. A list of meetings conducted with USFWS is provided in Table 4-1. The USFWS has concurred with Caltrans' affects determination for California red-legged frog and proposed avoidance, minimization, and mitigation measures.

4.2.4 California Department of Fish and Wildlife

Sections 1600 to 1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. Caltrans assessed potential impacts to CDFW jurisdictional features and will obtain a Lake or Streambed Alteration Agreement for the proposed project.

As discussed in Section 2.3, Biological Environment, no CESA consultation has been undertaken with CDFW. It was determined that there is only a low potential for one state candidate species, the foothill yellow-legged frog, to occur within the project area. The species has not been detected within the watershed in recent years (CDFW 2017), therefore no impacts to the species are anticipated. Caltrans will conduct protocol level surveys for this species

prior to construction, and will consult with CDFW if there is evidence the species occurs in the area and will be impacted by the project.

Caltrans has coordinated informally with CDFW via email and in-person meetings to discuss the proposed project, project features, alternatives, species' presence, and avoidance minimization measures. CDFW commented on the draft environmental document (see Comment 18 in Appendix K: Comment Letters and Responses). CDFW suggested moving discussion of the foothill yellow-legged frog into Section 2.3.4 Threatened and Endangered Species since the species is currently being considered for formal listing. CDFW also expressed support for an alternative that did not have a central pier.

4.2.5 County of Santa Clara Roads and Airports Department

Caltrans held a coordination meetings with Santa Clara County Roads and Airports Department during the scoping phase of the project (see Table 4-1). The Roads and Airports Department also commented on the draft environmental document (see Comment 15 in Appendix K: Comment Letters and Responses). The Roads and Airports Department is concerned with traffic impacts along SR-9 and Sanborn Rd. They would like to see construction duration reduced to the maximum extent possible, no closures of Sanborn Road or construction staging and storage, and coordination with the county on construction impacts and timelines during construction.

4.2.6 Santa Clara County Parks and Recreation Department

The Santa Clara Parks and Recreation Department was included in the initial scoping phase of the project due to the close proximity of Sanborn County Park and the access requirements of the park via Sanborn Road. There were initial concerns that there would be Section 4(f) impacts to the park which have since been avoided due to changes in the design of the alternatives. The Santa Clara County Parks have since been involved in multiple meetings and communications for the project to coordinate efforts, address concerns about the project, and as a stakeholder in the development of the MOA. Table 4-1 lists a general overview of the meetings and coordination efforts with the Santa Clara County Parks. Multiple phone and email conversations also occurred to provide updates for the project. The main concerns expressed by Santa Clara County Parks were impacts related to access for Sanborn County Park and future planning of the Congress Springs Connector trail. The

response to the NOP included comments on concerns of community and traffic impacts, visual/aesthetics, hydrology and water quality, noise and vibration, biological resources, and Section 4(f) resources. Santa Clara County Parks also commented on the draft environmental document. This comment, and Caltrans' response, has been included in Appendix K: Comment Letters and Responses as Comment 14.

Santa Clara County Parks was included in the development of mitigation under Section 106 of the National Historic Preservation Act. They partnered with the Office of Cultural Resource Studies to develop mitigation measures at a roundtable held on May 22, 2018, and reviewed the draft MOA which was sent to them on April 18, 2019.

4.2.7 State Historic Preservation Officer

Caltrans has consulted with the SHPO per the requirements of Section 106 of the National Historic Preservation Act and the California Environmental Quality Act, which requires projects to consider cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. Section 2.1.5 Cultural Resources describes the historical resources with the potential to be impacted by the project. The Saratoga Creek Bridge is the only historical resource that the project would have an adverse effect on.

Caltrans submitted the FOE to the SHPO on March 29, 2018 and received concurrance on the FOE on April 26, 2018. A supplemental FOE was submitted to the SHPO on May 6, 2019 with the updated alternatives. Concurrance on the supplemental FOE was received on June 6, 2019. The MOA was also submitted to the SHPO on June 7, 2019. The MOA was executed on June 20, 2019 (see Table 4-1).

4.2.8 California Native American Heritage Commission

Caltrans contacted the California Native American Heritage Commission (NAHC) on August 25, 2015, requesting a search of their Sacred Lands file to determine if there are known historically significant sites within or near the Area of Potential Effects for the proposed project. The NAHC responded on September 4, 2015, stating that no Native American cultural resources were reported from the sacred lands file records search. Using the NAHC list of interested Native American groups and individuals, Caltrans contacted and

invited interested parties to participate in efforts to identify archaeological and Native American resources.

Caltrans sent letters requesting input, on August 25, 2015, to individuals and organizations listed under Senate Bill (SB) 18, in accordance with Department policy regarding PRC 21080.3.1 and Chapter 532 Statutes of 2014 (Assembly Bill [AB] 52). Follow-up phone calls were placed the week of October 5-8, 2015, to all individuals listed in the NAHC response.

The California NAHC provided a response to the NOP via letter on April 12, 2016. The NAHC recommended consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the project as early as possible. The NAHC also provided a brief summary of AB52 and SB18 and provided recommendations for conducting cultural resource assessments.

4.3 Public Participation

4.3.1 Notice of Completion of the Draft Environmental Document

A Notice of Completion for the Draft EIR/EA was circulated on February 12, 2018, by the State Clearinghouse. Notices were also sent via both email and postal mail to the project stakeholders (see Chapter 6.0, Distribution List). The notice provided information on the project, including a summary of the proposed improvements, where the environmental document could be reviewed, the address to where comments could be sent, and the close of the public comment period. The public comment period began on February 12, 2018 and ended on March 29, 2018. A total of 24 comments were received during this time. These comments and the project development team's responses, can be found in Appendix K: Comment Letters and Responses.

4.3.2 Public Meetings

A public meeting was held on February 28, 2018 at the Saratoga Prospect Center from 6:00 p.m. – 8:00 p.m. at 19848 Prospect Rd, Saratoga, California. The purpose of the meeting was to present the draft environmental document to the public and solicit feedback on the project alterantives and determinations from the environmental studies. The project development

team and eight members of the public and local agencies landowners were present at the meeting.

The meeting was held in an open house format with display boards of the purpose and need for the project, the proposed project alternatives, important environmental and community resources of concern, and an explanation of the environmental process. A project fact sheet and comment cards were handed out to meeting attendees. The meeting began with a presentation by the project manager with an overview of the project, the proposed alternatives, and areas of focus for assessment of the potential project impacts. A brief question and answer session followed the presentation and then guests were encouraged to view the display boards and ask specific questions of the project specialists. Comment cards were collected at the meeting.

Concerns brought up at the meeting focused on impacts to local businesses, and land owners, and potential impacts to county parks and bike trails. Three comment cards were collected at the meeting. Copies of these comment cards, and the response from the Caltrans project development team, are included in Appendix K: Comment Letters and Responses.

Chapter 5 Distribution List

This EIR/EA was distributed to the following federal, state, and regional responsible and trustee agencies and elected officials. Agencies with an asterisk (*) will receive notification via the California State Clearinghouse.

In addition to the following list, local officials, stakeholders, community groups, businesses, and interested persons were notified of the availability of this document. Public meetings, as described in Chapter 4.0, Comments and Coordination, were held. Furthermore, all property owners/occupants near the project area received a project mailer, informing them of the availability of this EIR/EA; property owners adjacent to the project site received a hardcopy of the document.

FEDERAL AGENCIES

United States Fish and Wildlife Service
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Santa Clara County
Department of Planning and Development Planning Office
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Appendix A Section 4(f)

Introduction

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 USC 303, declares: that "…it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and
- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Responsibility for compliance with Section 4(f) has been assigned to the Department pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

Description of Proposed Project and Alternatives

Project Description

Caltrans proposes to address seismic and structural safety concerns related to the Saratoga Creek Bridge (Bridge No. 37 0074). The project is located in Santa Clara County on SR-9, a Scenic Highway, just east of the City of Saratoga, near the intersection of SR-9 with Sanborn Road. The project limits start at PM 4.75 and extend 0.25 mile to PM 4.9. However, the extent of the

project effects along SR-9 would extend from PM 3.5 to PM 6.2 in order to include the area where traffic control would begin and end. The Saratoga Creek Bridge itself is located at PM 4.85, where SR-9 crosses Sanborn Creek. The existing bridge was constructed in 1902 as a two-span, earth-filled, unreinforced concrete arch bridge with rubble masonry spandrel walls. The total length of the bridge is 146 feet. The width of the bridge includes two 12-foot-wide lanes, for a total of 24 feet (from curb to curb), with no shoulder. The bridge has no pedestrian or bicycle accommodations. The average height of the bridge deck from the creek channel is approximately 40 feet.

Purpose and Need

The purpose of this project is to maintain connectivity along SR-9 between the City of Saratoga in Santa Clara County and the community of Felton in Santa Cruz County. The need for this project is due to seismic and structural deficiencies in the Saratoga Creek Bridge (Bridge No. 37 0074). These deficiencies were identified in a 2004 bridge inspection report by Caltrans' Office of Structures Maintenance and Investigations (Office of Structures Maintenance and Investigations 2004). This report documented seismic and structural concerns that could undermine the future ability of the structure to continue providing reliable traffic service. Further discussion of the purpose and need for this project can be found in Section 1.2 of the environmental impact report/environmental assessment (EIR/EA).

Alternatives

Caltrans proposes to address these concerns by proposes to construct a new bridge within the existing bridge while maintaining much of the original outer structure without modification (Alternative 1.1, the "Hybrid" Alternative). This alternative was selected as the preferred alternative, after considering a total of eleven possible build alternatives and a no build alternative. The build alternatives considered but rejected are listed below.

- Alternative 1.2: Maintain the existing bridge alignment and replace with new accelerated bridge construction bridge

<u>Rejected after DED circulation</u>

- Alternative 1: Maintain the existing roadway alignment and retrofit the existing Bridge

- Alternative 2: Realign Roadway to the south and Replace Bridge
- Alternative 3: Realign Roadway to the North and Replace Bridge

Rejected Prior to DED circulation:

- Alternative A: Realign Roadway to the north of current alignment and retain original Saratoga Creek Bridge.
- Alternative C: Retain existing alignment and construct a new bridge.
- Alternative D: Wire Saw and Bond existing Saratoga Creek Bridge.
- Alternative E: Map, Disassemble and Façade existing Saratoga Creek Bridge.
- Alternative F: Form, Replicate and Replace existing Saratoga Creek Bridge.
- Alternative G: Realign Roadway to the south of the current alignment and retain original Saratoga Creek Bridge.

A further discussion of each of these alternatives that were considered but eliminated can be found in Section 1.6.2 of the EIR/EA.

Programmatic Section 4(f) Determination

Section 4(f) properties that have the potential to be affected by the project are identified based on their proximity to the project area. All Section 4(f) properties identified within a 0.5-mile radius of the project area were analyzed in order to determine whether the proposed project would “use” these properties. There were two Section 4(f) properties identified within this 0.5-mile radius. The first property is the Saratoga Creek Bridge, located on SR-9 in Santa Clara County at PM 4.9, just west of the City of Saratoga. The bridge crosses Sanborn Creek, just before its confluence with Saratoga Creek. The second property is Sanborn County Park, located on Sanborn Road, just south of the project. Figure 1 Section 4(f) Properties Located in the Saratoga Creek Bridge Project Study Area shows the location of both Section 4(f) properties in relation to the project study area.

A programmatic Section 4(f) determination has been prepared for the Saratoga Creek Bridge, and it is summarized below. A no-use determination has been made for Sanborn County Park and can be found after the discussion of the programmatic Section 4(f) determination for Saratoga Creek Bridge.

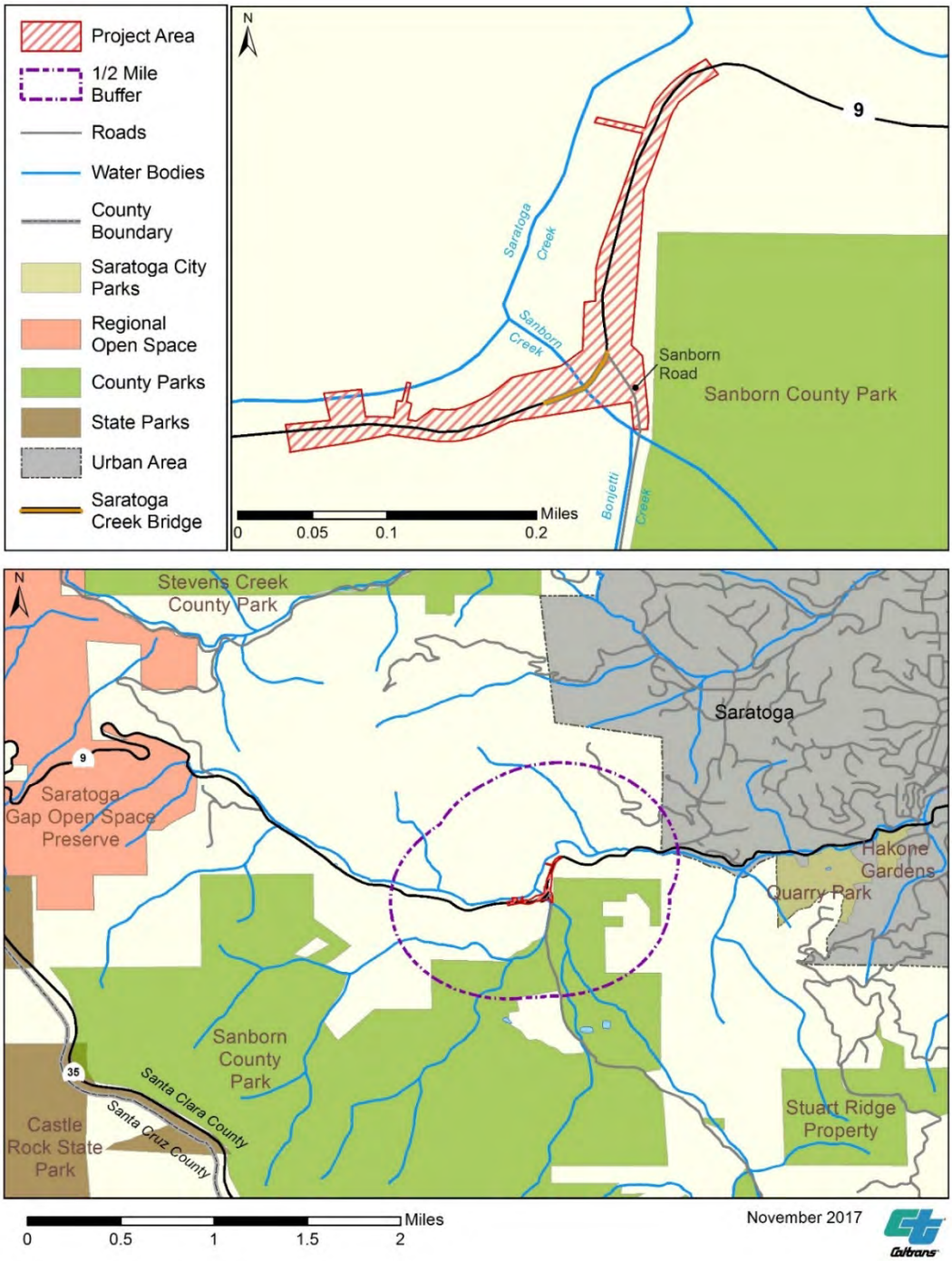

Figure 1 Section 4(f) Properties Located in the Saratoga Creek Bridge Project Study Area

Description of Section 4(f) Property

The Saratoga Creek Bridge (Bridge No. 37 0074) was determined eligible for listing in the National Register of Historic Places (NRHP) in 1985, as part of the first Caltrans Statewide Historic Bridge Inventory. The Saratoga Creek Bridge is significant under NRHP Criterion A for its association with the development of transportation and recreation trends at a local level in Santa Clara County. The bridge is also significant under NRHP Criterion C as an example of early masonry bridge construction. See Section 2.1.5 of the EIR/EA for more details.

The Saratoga Creek Bridge is a two-span, earth-filled concrete arch bridge with rubble masonry spandrel walls that was built in 1902. It is 146 feet long and 24 feet wide with no shoulders, with the average height between the bridge deck and the creek channel at approximately 40 feet. In 2012, a Director's Order authorized the replacement of the bridge deck and railing due to a car collision that damaged the bridge railing and structure. The bridge is flanked on either side by private property; on one side is a private residence and on the other is a private event venue.

The bridge's eligibility for listing on the NRHP qualifies it as a historic property under Section 4(f). Currently, the bridge is owned and maintained by Caltrans. In this 0.5-mile radius study area, there are no other historic properties identified by the Caltrans Office of Cultural Resource Studies (Office of Cultural Resource Studies 2016).

Impacts on Section 4(f) Property

The selected alternative, the Maintain Existing Roadway Alignment with "Hybrid" Bridge ("Hybrid" Alternative) proposes to construct a new steel girder bridge within the body of the existing bridge. The deck of the existing historic bridge will be removed and approximately 8 feet of its earthen fill will be dug out. New support columns will be placed at the abutments and center pier. The new bridge will be supported by the new columns. The masonry walls and stone arches of the existing bridge will remain and serve as a façade, concealing the support columns of the new bridge. The deck of the new bridge will appear to be supported by the historic masonry walls, however, it will not rely on the existing bridge for seismic stability. Removing the weight of

traffic and the weight associated with upper part of the earthen fill is anticipated to improve the ability of the remnant structure to survive a seismic event. Minor cosmetic repairs and scour protective measures will be made to the remnant structure of the existing bridge to address some of the previously documented deficiencies.

Construction of the new bridge would be completed in multiple stages. In the first stage, temporary support would be constructed underneath the existing structure to provide stability during construction. Temporary traffic barriers will be set on the bridge to accommodate one-way traffic. New support columns will be installed at the abutments and center pier on the closed portion of the bridge. Once completed, steel plates will be placed over the column locations, work will switch to the other side of the bridge, and the process will be repeated.

The selected traffic management strategy would be implemented in stage two of construction. The existing bridge will be closed and the entire bridge deck and a portion of the earthen-fill will be removed. Precast abutment and bent caps will be placed at the new abutments and piers. Steel girder sections will be placed on the bent caps and bolted together to form a series of continuous steel beam. Once all the girders are installed, then the precast, prestressed concrete deck panels will be installed on the girders. Approach slabs and a polyester-concrete overlay will then be constructed to tie the new bridge with the existing portion of SR-9.

The bridge will be ready to carry traffic at the beginning of stage three. The temporary railing would be placed on the bridge and the roadway reopened to traffic under one-way traffic control. New concrete barriers would be constructed during this time. SR-9 would be reopened to two-way traffic once all of the concrete barriers and guardrails are finished.

Minor cosmetic repairs to the joint mortar of the existing stone would be completed and then the support structures would be removed. Rock slope protection (RSP)[1], or similar scour protection countermeasures, will be placed

[1] RSP is layers of rock that are laid down on a slope to protect the soil of the slope from water erosion.

along the creek bank at the central pier to prevent further undermining of the pier foundation due to the pre-existing scour concern from Sanborn Creek. Scouring occurs when high water flows wash away the supporting soil and undermine the stability of the structure. Once all other construction is complete above the creek, the last task will be to remove the creek diversion system and/or temporary stream crossing.

Alternative 1.1 would have an adverse effect on the Saratoga Creek Bridge as this alternative would create a second bridge within the historic structure, leaving the masonry walls and the concrete arch surrounding the steel girder bridge as a decorative façade with no structural purpose and thus the integrity of the historic bridge's structure would be lost. The integrity of materials would be somewhat retained because the only loss of historic material is that of approximately 8-12 feet of the rubble in-fill of the bridge where it will be excavated to install the new bridge. Further, the new railings will replace the railings that were installed in 2012 and thus not character defining features. However, the material of the bridge would be heavily added to by the new construction of the interior bridge. The workmanship of the bridge would also be somewhat retained as the masonry walls would remain, and again the railings that would be replaced are non-character defining features of the bridge. To see concurrence on Caltrans' finding of adverse effect, see Appendix F: SHPO Consultation,

The integrity of feeling would be moderately affected as the way the current bridge is experienced by roadway users makes it hard to determine that you are on a historic bridge given the existing concrete barrier railing. From below the bridge, the large masonry spandrel walls would be retained. .However, the new deck would overhang the spandrel walls by approximately 2-3 feet making the new bridge within the existing structure more apparent. Further, this overhang would cast a large shadow down the spandrel walls calling more attention to the new structure.

The setting of the bridge would be moderately impacted by this alternative through the removal of over 300 trees during construction. As discussed in Section 2.1.4 Visual/Aesthetics, the dense mature trees create a sense of enclosure that is defining of the visual character of this scenic highway. These trees will be replanted directly after construction is completed and the mature tree canopy will be re-established over time.

The bridge would retain its integrity of location as it will not be moved. The integrity of association would be largely diminished, although the bridge would still serve to facilitate connectivity on this route for tourism and industry, per its Criterion A significance. However, the bridge would no longer demonstrate its significance under Criterion C as a rare example of a concrete arch bridge with aesthetically significant design, nor as the work of master engineer John McMillian, because the new structure would render the existing one an architectural adornment with no structural value.

The historic integrity of the existing Saratoga Creek Bridge would be almost entirely lost under this alternative. This would be considered an adverse effect under Section 106 of the National Historic Preservation Act and would be considered a “use” of the Section 4(f) property. Chapter 2, Section 2.1.7 Cultural Resources of the environmental document discusses how the historic integrity of the bridge would be affected by the hybrid bridge alternative.

However, as compared to all other build alternatives, the “Hybrid” Alternative is the only prudent and feasible alternative. Any of the alternatives that would preserve the historic integrity of the bridge would result in severe environmental and economic impacts. Please see the discussion below.

Applicability of Programmatic Section 4(f)

The proposed project is eligible for the Programmatic Section 4(f) for the Use of Historic Bridges. This evaluation is applicable under the following conditions as identified by the Federal Highway Administration (FHWA) (Federal Highway Administration 2016):

1. Federal funding would be used for this project through the State Highways Operation and Protection Program.

2. The Saratoga Creek Bridge is eligible for the NRHP.

3. The Saratoga Creek Bridge is not a National Historic Landmark.

4. The Department, as delegated by FHWA, has determined that the facts of the project match those set forth in this document; and

5. An agreement (Memorandum of Agreement) with the Department, as delegated by the FHWA, the State Historic Preservation Officer (SHPO),

and the Advisory Council on Historic Preservation will be reached through procedures pursuant to Section 106 of the National Historic Preservation Act. Section 2.1.7 of the EIR/EA discusses this agreement.

Avoidance Alternatives and Other Findings

The project explored all necessary alternatives in an effort to identify one that would avoid a use of the Saratoga Creek Bridge. Under Section 4(f), Caltrans is required to assess the following types of alternatives: (1) No build; (2) build a new structure at a different location without affecting the historic integrity of the old bridge; and (3) rehabilitate the historic bridge without affecting the historic integrity of the structure.

Caltrans initially developed alternatives that fit these three types in an attempt to avoid impacts to the Saratoga Creek Bridge. However, all the proposed avoidance alternatives were either infeasible or would potentially have severe impacts on the environment. The following section discusses each of these previously explored alternatives and why they were eventually dropped from consideration.

No Build

As discussed in Chapter 1, Section 1.2 Purpose and Need of the environmental document Saratoga Creek Bridge is an unreinforced stone masonry bridge, with mortar joint deterioration, located less than one mile of the San Andreas fault. The continued deterioration of the material properties and lack of reinforcement within the bridge make it susceptible to damage and potential collapse during a seismic event.

The No Build Alternative does not correct the situation that causes the bridge to be structurally deficient and normal maintenance is not considered adequate to cope with the situation because such maintenance cannot correct the underlying structural seismic deficiencies.

Build a New Structure at a Different Location Without Affecting the Historic Integrity of the Old Bridge

Caltrans assessed this type of alternative with its consideration of Alternative A: Realign roadway to the north of current alignment and retain

original Saratoga Creek Bridge and Alternative B: Realign roadway to the south of the current alignment and retain original Saratoga Creek Bridge. Both alternatives are included in Section 1.6.2 Alternatives Considered but Eliminated from Further Discussion in the environmental document. Alternative C is also included, but this alternative proposed to replace the existing bridge on the current alignment.

Alternatives A and B are not feasible or prudent because they could both result in environmental, social, and economic impacts of extraordinary magnitude. These impacts of extraordinary magnitude are due to the seven construction seasons these alternatives would require. This would disrupt traffic on SR-9 for approximately seven years and likely result in economic impacts to local businesses, residents, and visitors. SR-9 is the only direct route across the Santa Cruz Mountains from the City of Saratoga to the community of Fenton. A detour around this location would be over an hour long. If one-way traffic control is possible, the traffic delays would be about 5 minutes on average, but likely longer during the summer months when there is heavy visitor traffic to the surrounding parks and event venues.

The impacts on biological resources for seven years would also be considered high due to the prolong disruption of the natural environment. Sanborn Creek is used by local wildlife for foraging, nesting, and dispersal habitat. Section 2.3.4 Animal Species discusses the use of the site by local wildlife species.

Additional social and economic impacts from Alternative A would be caused from the location of a new bridge through the primary reservation picnicking area that provides revenue for the neighboring private events venue. This picnicking area is located directly adjacent and to the north of the current bridge. The existing bridge is the dominant visual element of the picnicking area, which also features wooden picnic tables, cooking facilities, and open space. The venue would lose income from the rental of this picnicking area both during construction and, likely, following construction because this section of the property would be acquired and incorporated into the state highway system.

Additional impacts to natural resources from Alternative B would be caused from the location of a new bridge through a densely vegetated and steep

hillside to the south of the existing bridge. Constructing this alternative would require cutting back into the hillside and constructing large retaining walls at both ends of the bridge. This would cause greatly increased impacts to biological and visual resources, add construction time onto the project timeline, and would require acquisition of property from both the southwestern and south eastern corners of the bridge.

The new bridge in Alternative B would be moved closer to the nearby residential home located on the southwestern corner of the existing bridge. This could cause an increase in noise impacts to the residence and potential air quality impacts, especially with the long construction duration.

A retaining wall required under Alternative B would cause substantial adverse impacts to visual resources through the removal of trees and the installation of 375 feet of retaining wall up to 35 feet high (Caltrans Office of Landscape Architecture 2017), adjacent to the bridge area on Sanborn Road. SR-9 is a designated State Scenic Highway. The corridor has several existing retaining walls, and more are likely to be built in the future. The visual impact of this alternative when combined with existing and future projects could amount to cumulative impacts sufficient to compromise the scenic value status of this section of the highway.

The overall area affected by Alternatives A and B, respectively, is approximately double that of the current alternatives being considered in the environmental document. The mitigation costs for biological resources are proportional to the area of impact. In addition, the longer timeline (up to seven construction seasons) would increase the duration of impacts to biological resources and habitat connectivity within the biological study area. This would have likely increased the mitigation costs even further.

The purpose of developing Alternative A and B was to allow the existing Saratoga Creek Bridge to remain in place and avoid impacting its historical standing. This purpose could not be met with either alternative because the existing bridge would not be able to remain even if SR-9 was realigned to avoid using the bridge. This is because Caltrans would not be able to retain ownership of the existing bridge once it is no longer being used in the State Highway System. The maintenance responsibilities and ownership of the bridge would have to be transferred to another public agency. Unfortunately,

Caltrans was unsuccessful in finding an entity that they could transfer ownership to without bringing the bridge up to the standard of safety. Bringing the structure to standard would require rehabilitating the existing bridge, which has been deemed infeasible–from an engineering standpoint– to do in a way that would not have an adverse effect on the historic features of the bridge. Rehabilitation options are discussed in the following section.

REHABILITATE THE HISTORIC BRIDGE WITHOUT AFFECTING THE HISTORIC INTEGRITY OF THE STRUCTURE

Caltrans assessed this type of alternative with its consideration of two retrofit alternatives:

1. Alternative D: Wire saw and bond the existing Saratoga Creek Bridge
2. Alternative E: Map, disassemble, and façade the existing Saratoga Creek Bridge.

Both Alternatives D and E had major engineering safety concerns.

Alternative D was determined infeasible because of the high risk of the masonry spandrel walls collapsing during construction, as well as the possible instability of the shoring.

Alternative E was determined to be infeasible due to the uncertainty with the seismic stability of the façade after construction and the uncertainty of how the façade could be tied into the new interior core of the bridge without damaging the historic integrity of the façade. Another approach to this would require using steel plates as discussed in Alternative 1: Retrofit the Existing Bridge Along Current Alignment of the draft environmental document. However, the use of these plates would still adversely affect the historical integrity of the existing bridge since they would effectively cover much of the façade.

There was also a high risk the internal fill collapsing during the removal of the spandrel walls for Alternative E. This would be a concerning hazard for construction workers. It was also considered very likely that many of the stones in the spandrel walls would be damaged during the deconstruction of the masonry spandrel walls because of the stones' size and the unknown quality of their bonding to one another and the infill. The loss of enough

stones would defeat the purpose of the deconstruction since the retention of the materials is what allows this alternative to retaining the bridge's historical standing.

The Alternatives D and E were also not considered feasible or prudent because of the social and environmental impacts of extraordinary magnitude that would likely result from the seven construction seasons these alternatives would require. This would disrupt traffic on SR-9 for approximately seven years and likely result in economic impacts to local businesses, residents, and visitors. The impacts on biological resources for seven years would also be considered high due to the prolonged disruption of the environment. SR-9 is the only direct route across the Santa Cruz Mountains from the City of Saratoga to the community of Fenton. A detour around this location would be over an hour long. If one-way traffic control is possible, the traffic delays would be about 5 minutes on average, but likely longer during the summer months when there is heavy visitor traffic to the surrounding parks and event venues.

The impacts on biological resources for seven years from both of these alternatives would also be considered high due to the prolong disruption of the natural environment. Sanborn Creek is used by local wildlife for foraging, nesting, and dispersal habitat. Section 2.3.4 Animal Species discusses the use of the site by local wildlife species.

Conclusion

As a result of these findings, Alternative 1.1, the "Hybrid" Alternative, was determined to be the most feasible and prudent alternative. The impacts to the community, economic, and biological impacts are greatly reduced because the construction time is only 1 year instead of the 7 years estimated for the previously discussed alternatives. The footprint of the impact area for Alternative 1.1 is about half of that estimated for Alternatives A and B, and is engineeringly feasible, unlike Alternatives D and E.

Measures to Minimize Harm to the Section 4(f) Property

There are no feasible measures to minimize impacts to the historic Saratoga Creek Bridge. The nature of the rubble fill and stone walls, in combination with the overall size of the bridge, make it infeasible to retrofit without affecting the historical integrity of the structure. Re-routing SR-9 to the north or south would potentially cause excessive impacts to natural resources and private properties, while still necessitating the retrofit of the existing bridge in order to transfer responsibility of the bridge to another public agency. No other public agencies have been willing to accept responsibility for the bridge.

Caltrans has signed a Memorandum of Agreement with the SHPO concerning mitigation for the adverse effect on the Saratoga Creek Bridge. The finalized list of measures can be found in Section 2.1.5 Cultural Resources and in Appendix C Avoidance, Minimization, and/or Mitigation of the environmental document.

Coordination

The California SHPO is the official with jurisdiction over historic properties in the State of California. SHPO is responsible for the operation and management of the California Office of Historic Preservation. Caltrans submitted a Notice of Preparation to SHPO, via the State Clearinghouse, on April 5, 2016, as part of the scoping process to solicit feedback on the project scope, range of alternatives, and level of analysis for cultural resources.

Three meetings were held during the scoping process to discuss the project, the range of alternatives, and resource impact concerns. The first of these was with the Santa Clara County Parks and Santa Clara Roads and Airports Department; this meeting was held on March 24, 2016. An invitation was also sent to the City of Saratoga, the Town of Los Gatos, the City of Monte Sereno, Santa Cruz County, and Bike Silicon Valley. The second meeting was a public meeting held on April 21, 2016. The third was a focus meeting with all of the landowners adjacent to the project limits, held on May 12, 2016.

Caltrans' Office of Cultural Resource Studies submitted a Historic Property Survey Report (HPSR) to SHPO on October 27, 2016 (Office of Cultural

Resource Studies 2016). The HPSR contains information on the types and extent of review that Caltrans has done to identify cultural resources within the project's Area of Potential Effects (APE). The HPSR determined that there are two historic properties in the APE: the Saratoga Creek Bridge and a mid-century can/debris scatter; the latter was assumed eligible for the NRHP for the purposes of this project. Three other resources within the APE were determined ineligible for the NRHP. SHPO concurrence on the eligibility of the historic properties was received on December 20, 2016

OCRS submitted a Finding of Adverse Effect (FAE) Report to the SHPO on March 29, 2019, which was concurred upon on April 26, 2018. A Supplemental Finding of Adverse Effect (Supp FAE) submitted to the SHPO on May 7, 2019 and was concurred upon by the SHPO on June 6, 2019.

Caltrans signed a Memorandum of Agreement with the SHPO concerning mitigation for the adverse effect on the Saratoga Creek Bridge on June 20, 2019. Mitigation will include completion of a Historic American Engineering Record Survey, as well as public outreach.

Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determination(s)

This section of the appendix discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because (1) they are not publicly owned, (2) they are not open to the public, (3) they are not eligible historic properties, or (4) the project does not permanently use the property and does not hinder the preservation of the property.

There is one private park and one public park within the 0.5-mile radius study area surrounding the project location. These are Saratoga Springs Picnic and Campgrounds, Inc. and Sanborn County Park. The Saratoga Springs Picnic and Campgrounds is located directly adjacent to the project area, but it is not publicly owned; therefore, the provisions of Section 4(f) do not apply. Sanborn County Park is a public park managed by Santa Clara County. The provisions of Section 4(f) do apply to this park because it is publicly owned and operates as recreational facilities open to the general public.

Sanborn County Park

Sanborn County Park (Figure 2) is located adjacent to the project area. This is a 3,453-acre regional park that offers tent and recreational vehicle (RV) camping, hiking, picnicking, group picnic reservation sites, summer outdoor theater performances, fishing, biking, mountain biking, equestrian trails, volleyball courts, and horseshoe pits (Santa Clara County 2017). The park features the steep slopes that are characteristic of the Santa Cruz Mountains with dense, mature vegetation; multiple creeks that flow through the park; the San Andreas Trail, the Skyline Trail, the John Nicholas Trail, the Lake Ranch Trail, the Sanborn Trail, the Peterson Trail, the Summit Rock Loop Trail, and various nature trails; the stands of mature sequoia trees in the park; the Sequoia Group Area, the Ohlone Group Area, and the Costanoan Group Area; the walk-in campground and the RV campground; the horseshoe pits, volleyball courts, bathrooms, and showers; an RV dump station; a youth campground; the Dyer House Visitor Center; the Lake Ranch Reservoir; and the dense and mature forest that covers the surrounding Santa Cruz Mountains. The park's attributes are the quiet natural setting along the trails and in the campgrounds, the wide-open grass lawns in the main park picnicking area, the native wildlife that lives and moves through the park, and the connection with other regional trail networks.

Figure 2: Open Space Area at Sanborn County Park

The majority of the park is located farther down and to the west of Sanborn Road. The portion nearest the project area is to the east of Sanborn Road and only contains a small network of hiking only trails. There are more than 22 miles of trails overall in the park (Santa Clara County 2017). These trails are a mix of hiking only, hiking and bicycling, and hiking, bicycling, and equestrian. The larger trail network is located in the larger portion of the park that is to the west of Sanborn Road. Skyline Trail and Saratoga Trail are two regional trails that connect with this larger trail network. All of the other park amenities are located in the larger section of Sanborn County Park, approximately 1.1 miles down Sanborn Road from the project area. The park is open year-round from 8 a.m. to sunset (Santa Clara County 2017). Summer is the most active season for the park, with weddings, theatrical performances, hiking, and camping serving as popular attractions.

The smaller network of trails that is closest to the project area has four trailheads that begin on the eastern side of Sanborn Road. There are no official parking areas for these trailheads. Instead, visitors use unofficial pullouts in the county right-of-way along Sanborn Road. These trails mostly follow either Sanborn Creek or Aubry Creek at different points along their length. The trails wind through the steep Santa Cruz Mountains, and the area is heavily wooded with mature trees (see Figure 3).

Figure 3: Paved Trail Section in Wooded Area of Sanborn County Park Near the Peterson Grove

The main entrance to the park is located on Sanborn Road, about 1 mile from the project area. Sanborn Road intersects with SR-9 next to the eastern approach to Saratoga Creek Bridge. Most visitors to the park use SR-9 to access Sanborn County Park.

The project does not propose temporary or permanent land acquisition from Sanborn County Park. The main area of the park is far enough away from the project area that the sights and sounds of construction would not be experienced by park visitors.

Traffic traveling along SR-9 to the Sanborn County Park may experience some travel time delays due to the one-way traffic control across the bridge. These delays will be brief and are not likely to exceed 5 minutes. As a standard project feature, Caltrans will work with Santa Clara County Parks Department to inform of travel time delays and any changes to traffic management strategies that may result in increased travel time delays. These traffic management strategies will form the basis of a Traffic Management Plan.

Measures to Minimize Harm to the Section 4(f) Property

Both proposed alternatives would be located on the same alignment as the existing bridge. There would be no use of Sanborn County Park under any of the alternatives for this project. Caltrans will continue to work with the Santa Clara County Parks Department throughout the development of the project design and during construction.

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Appendix B Title VI Policy Statement

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

DEPARTMENT OF TRANSPORTATION
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Making Conservation a California Way of Life.

April 2018

NON-DISCRIMINATION POLICY STATEMENT

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

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

For information or guidance on how to file a complaint, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

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

LAURIE BERMAN
Director

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

Appendix C Avoidance, Minimization and/or Mitigation Summary

Visual/Aesthetics

AMM VISUAL-1: Bridge aesthetic treatment. An aesthetic treatment will be incorporated into the bridge structure, including the bridge barrier and bicycle rail. A context-sensitive texture and color will be used to minimize the change to the visual character caused by replacing or rehabilitating the existing historic structure.

AMM VISUAL-2: Funding for replacement planting. Any proposed replacement planting would be funded through the parent project, programmed, and completed within two years of completion of all roadwork.

Cultural Resources

AMM CULT-1: Historic American Building Engineering Record Survey (HAER) – Level II Documentation. This report will be prepared by a Professionally Qualified Staff per the guidelines outlined in the *Secretary of the Interiour's Standards and Guidelines for Architectural and Engineering Documentation* (National Park Service 1983). The report will document the historic bridge as it exists prior to construction. It will include a written history and description of the bridge as well as selected drawings and photographs that showcase the historic structure and its unique elements.

AMM CULT-2: Digital Scan of Bridge. Caltrans will complete a digital scan of the existing bridge before construction begins to document its existing dimensions and features.

AMM CULT-3: Historical Narrative. A narrative will be completed that documents the transportation history along SR-9, to create an electronic publication.

AMM CULT-4: Campfire Program with Sanborn County Park. Caltrans will work with Sanborn County Park to develop an appropriate Campfire Program to be used in the park's Interpretive Program.

AMM CULT-5: Digital Content for Electronic Historic Platform(s). Caltrans will contribute documentation of the historic Saratoga Creek Bridge to online digital platform(s) that document historic structures.

Water Quality and Storm Water Runoff

AMM WATER-1: Water treatment BMPs. A treatment strategy would be developed with the RWQCB to incorporate the best method for removing pollutants of concern, particularly litter, from stormwater runoff from the new and replaced paved areas. Bioswales, low-impact development BMPs (such as bioretention basins), vegetated ditches, and other strategies for designing collectors for concentrated water flows would be considered based on the area topography, soil properties[2], how frequently ponds/puddles occur after rainfall, weather conditions, and the land classification.

AMM WATER-2: Permanent Water Treatment BMPs. Caltrans will work with the RWQCB to determine potential areas for permanent treatment BMPs during the process for obtaining the Section 401 permit. Offsite locations/mitigation would be considered if there is not enough room for the required square footage of treatment BMPs onsite.

AMM WATER-3: Stormwater pollution prevention plan. A SWPPP would be developed and implemented for this project per the requirements of the Construction General Permit.

AMM WATER-4: Erosion prevention. New flared end outlets, velocity dissipation devices, replacement planting of vegetation, and erosion control netting would be incorporated into the project design in order to prevent and minimize permanent erosion of exposed soils after the project is constructed.

Paleontology

AMM PALEO-1: Worker Paleontological Awareness Training. Construction personnel will attend a mandatory paleontological resources awareness program delivered by a Caltrans-approved paleontologist.

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[2] Soil properties, such as the type of soil, how well it drains, and how easily it erodes, can all factor into determining the appropriate strategy for using these design features.

Biological Environment

AMM BIO-1: ESA fencing. The ESA (including riparian habitat) outside of the active construction area will be clearly deliniated as an ESA and protected with high visibility fencing. This is included as a requirement in the Biological Opinion from the USFWS.

AMM BIO-2: Tree removal tally. Trees will be counted, measured, and recorded as they are trimmed or removed to determine the actual number of trimmed and removed trees.

AMM BIO-3: Tree replacement. Caltrans proposes to replace trees onsite per anticipated requirements by CDFW, USFWS, and the RWQCB. A CDFW-approved offsite location will be used if not all of the replacement trees are able to fit onsite. The tree replacement ratios will be 10:1 for California black walnut, 6:1 for all oak species, 3:1 for other native California tree species, and 2:1 for non-native tree species. However, non-native tree species will be replanted with native tree species. The replanting will be done onsite within one year of the completion of construction.

AMM BIO-4: Riparian habitat replacement ratio. Caltrans will work with CDFW for offsets to potential impacts on riparian habitat that falls under CDFW jurisdiction. Caltrans proposes to restore acres of riparian habitat onsite at a 1:1 ratio for permanent and temporary riparian impacts. Replacement of lost riparian habitat in CDFW jursidiction will be done at a 3:1 ratio offsite if there is not enough room onsite for all of the required restoration. This will be achieved by acquiring a conservation easment, or covenant, to preserve similar habitat.

AMM BIO-5: Creek Diversion/Temporary Creek Crossing. A creek diversion system will be used to keep construction debris from entering Sanborn Creek. Caltrans will submit the plans for the water diversion to USFWS and CDFW for review.

AMM BIO-6: Bat Breeding Season and Roosting Sites. A qualified biologist will conduct a habitat assessment for potentially suitable bat roosting habitat, between March 1 to April 1 or August 31 to October 15 prior to bridge construction activities. If the habitat assessment reveals the bridge structure is suitable roosting habitat for bats then the appropriate exclusionary

measures will be implemented prior to bridge construction during the period between March 1 to April 15, or August 31 to October 15. These measures may include blocking or filling potential cavities with foam, visual monitoring and staging construction activities to avoid bats. If bats are known to use the bridge structure, exclusion netting shall not be used.

If trees are determined to be bat habitat, and tree removal is scheduled for October 16 through January 15, then presence/absence surveys shall be conducted two to three days prior to tree removal or trimming. If presence/absence surveys are negative, then tree removal may be conducted by following a two phased tree removal system conduced over two consecutive days. On the first day (in the afternoon) limbs and branches are removed using chainsaws or other hand tools. Limbs with cavities, crevices, or deep bark fissures are avoided and only branches or limbs without those features are removed. On the second day the entire tree shall be removed.

AMM BIO-7: Fish species relocation plan. Prior to the use of a creek diversion system, a fish relocation plan will be developed to avoid impacts to fish from construction.

AMM BIO-8: California red-legged frog construction work window and timing. The Biological Opinion from the USFWS requires that all construction activities within the bed and bank of Sanborn Creek will be limited to the maximum extent practicable to work between June 15th and October 15th. This work window will be to avoid the period when California red-legged frog are the most active. Construction activities, such as vegetation clearing necessary to minimize effects on birds and bats, may be conducted outside this period.

AMM BIO-9: California red-legged frog habitat replacement ratio. The Biological Opinion from the USFWS requires a replacement ratio of 1:1 onsite and 3:1 offsite for permanent habitat loss of 1.8 acres of California red-legged frog habitat.

AMM BIO-10: Biological monitor. The Biological Opinion from the USFWS requires that a USFWS-approved biological monitor be onsite during all work that could reasonably impact California red-legged frogs. Monitoring and surveys will be done per USFWS guidelines as well as those included in the Biological Opinion.

AMM BIO-11: Preconstruction survey for California red-legged frog. The Biological Opinion for the USFWS requires that preconstruction surveys for special status species, including California red-legged frog, will be conducted by the USFWS-approved biological monitor no more than 20 calendar days prior to any initial ground disturbance and immediately prior to ground disturbing activities (including vegetation removal) within the project footprint.

AMM BIO-12: Protected species discovery. The Biological Opinion from the USFWS requires the biological monitor will alert the resident engineer to stop work if any protected species are discovered. Work will resume after observed individuals leave the site voluntarily, the USFWS-approved biological monitor determines that no wildlife is being harassed or harmed by construction activities, or the wildlife is removed by the biologist to a release site using USFWS-approved handling techniques.

AMM BIO-13: Handling protected species. Only the biological monitor will handle any discovered protected species.

Construction Noise

AMM Noise-1: Bridge Demoliton and Pile Driving Work Restriction. Bridge demolition and pile driving shall not be allowed between the hours of 9:00 pm to 6:00 am of the following day.

AMM Noise-2: Construction Delivery Hours Limit. No construction equipment and material will be delivered and dropped off between the hours of 9:00 pm to 6:00 am of the follwing day.

Appendix D List of Acronyms and Abbreviations

AADT	average annual daily traffic
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	asbestos-containing material
ADL	aerially deposited lead
APE	Area of Potential Effect
ASR	Archaeological Study Report
AT&T	American Telephone and Telegraph Company
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BAT	best available technology
BAU	business as usual
BIRIS	Bridge Inspection Records Information System
BMP	best management practices
BO	Biological Opinion
BSA	biological study area
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board

CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	*Code of Federal Regulations*
CH_4	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO-CAT	Coastal Ocean Climate Action Team
CO	carbon monoxide
CO_2	carbon dioxide
CRHR	California Register of Historical Resources
CRLF	California red-legged frog
CTC	California Transportation Commission
CTIP	California Transportation Infrastructure Priorities
CTP	California Transportation Plan
CTS	California tiger salamander
CWA	Clean Water Act
Department	California Department of Transportation
DNA	deoxyribonucleic acid
DOT	U.S. Department of Transportation
DPS	Distinct Population Segment

EA	environmental assessment
EIR	environmental impact report
EO	executive order
EPA	U.S. Environmental Protection Agency
ESA	environmentally sensitive area
FED	final environmental document
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GHG	greenhouse gas
HM	hydromodification
HOV	high-occupancy vehicle
HPSR	Historic Property Survey Report
HRER	Historic Resources Evaluation Report
H&SC	Health and Safety Code
IGR	intergovernmental review
IPCC	Intergovernmental Panel on Climate Change
ITP	Incidental Take Permit
ITS	Intelligent Transportation System
LBP	lead-based paint
LEDPA	Least Environmentally Damaging Practicable Alternative
MBTA	Migratory Bird Treaty Act

MLD	Most Likely Descendent
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MMT	million metric tons
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
mph	mile per hour
MPO	metropolitan planning organization
MS4s	Municipal Separate Storm Sewer Systems
MTC	Metropolitan Transportation Plan
NAHC	Native American Heritage Commission
N_2O	nitrous oxide
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Act

OSM	Office of Structures and Material
OSTP	Office of Science and Technology Policy
PA	Programmatic Agreement
PCE	primary constituent elements
PDT	project development team
PER	Paleontological Evaluation Report
PG&E	Pacific Gas & Electric
PIR	Paleontological Identification Report
PLACs	permits, licenses, agreements, and certifications
PM	post mile
$PM_{2.5}$	particulate matter less than 2.5 micrometers in diameter
PM_{10}	particulate matter less than 10 micrometers in diameter
PMP	paleontological mitigation plan
PRC	Public Resources Code
RC	resource change
RSA	Resource Study Area
RSP	rock slope protection
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCS	sustainable communities strategy
SDC	Seismic Design Criteria

SFPUC	San Francisco Public Utilities Commission
SFWD	San Francisco Water Department
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SHOPP	State Highway Operation and Protection Program
SLR	sea-level rise
SR-	State Route
SR-9	State Route 9
Sta.	Station
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TASAS	Traffic Accident Surveillance and Analysis System
TCAR	Temporary Construction Access Road
TIP	transportation improvement plan
TMDL	total maximum daily load
TMP	traffic management plan
TSAR	Traffic Safety Analysis Report
UCMP	University of California Museum of Paleontology
USACE	United States Army Corp of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation

USFWS	United States Fish and Wildlife Service
VIA	visual impact assessment
VR	viewer response
WB	westbound
WDR	waste discharge requirement
WPCP	Water Pollution Control Plan

Appendix E Notice of Preparation

SCH NO.

NOTICE OF PREPARATION

To:

From: California Dept. of Transportation
111 Grand Ave, MS 8-B
Oakland, CA 94612

Subject: **Notice of Preparation of a Draft Environmental Impact Report**
Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Project Title: Saratoga Creek Bridge Project

Project Location: State Highway 9 (Post Miles 4.3/5.3)

Project Description: Caltrans proposes a bridge replacement to address seismic and structural deficiencies in the Saratoga Creek Bridge (No. 37-0074).

This is to inform you that the California Department of Transportation (Caltrans) will be the lead agency and will prepare an Environmental Impact Report (EIR) for the project described below. Your participation as a Responsible Agency is requested in the preparation and review of this document.

We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

A more detailed project description, location map, and the potential environmental effects are contained in the attached materials.

A copy of the Initial Study (__ is) (X is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please direct your response to Noray-Ann Spradling Telephone (510) 286-5961 at the address shown above. Please supply us with the name for a contact person in your agency.

Date 3/31/2016

Signature

Title Environmental Analysis Branch Chief

Project Description

Saratoga Creek Bridge (No. 37-0074) is a two-span, earth filled concrete arch bridge with rubble masonry spandrel walls. This bridge was constructed in 1902 and is approximately of 165 feet long, 24 feet wide, and has an average height of 40 feet. It is located on State Route 9 (SR-9) less than a mile west from the city limits of the City of Saratoga, CA.

A Structure Maintenance and Investigations (SM&I) Report was prepared in 2004 and documented a number of seismic and structural concerns with the existing bridge. Further geotechnical investigations in 2011 found that the earth fill within the bridge had no steel reinforcement and does not meet the current Load and Resistance Factor Design standard. The in-depth investigation revealed that the material properties do not meet the strength and mechanical property standards for current bridge designs. In addition to this, the spandrel walls have begun to separate from the rest of the bridge structure. These conditions must be addressed in order to ensure the future ability of the structure to continue providing reliable traffic service on State Highway 9.

Caltrans proposes to address these concerns with the four possible alternatives identified below:

1. Southern Alignment: A new bridge would be constructed south of the existing bridge. If feasible, the existing structure would remain in place and open to traffic during construction. Once the new structure is built, it will service SR-9 traffic. The existing structure will then be removed unless another organization or individual will agree to accept legal and maintenance responsibility for it.
2. Northern Alignment: A new bridge would be constructed north of the existing bridge. If feasible, the existing structure would remain in place and open to traffic during construction. Once the new structure is built, it will service SR-9 traffic. The existing structure will then be removed unless another organization or individual will agree to accept legal and maintenance responsibility for it
3. Existing Alignment: The existing structure would be replaced with a new structure on the same alignment as the existing structure.
4. No Build: The existing structure would remain in place without modification.

All alternatives, except the No Build, will require retaining walls to some degree. The most extensive retaining walls will be required for the Northern Alignment alternative, while the least extensive will be required for the Existing Alignment alternative.

Temporary construction access outside of the Caltrans right-of-way may be required for construction activities at the base of the existing bridge. These details will be further refined during the project development process.

Pile driving will be required for all but the No Build Alternative. The location and number of piles will be dependent on the specific alternative and will be determined once specific bridge designs have been identified.

Abutments and wingwalls will be constructed for the Southern, Northern, and Existing Alignment alternatives. A single bridge pier will be required approximately half way across the span of the bridge for all Alternative on the existing alignment. Other alternative may require zero to four piers. Sanborn Creek runs along the east side of the span, under one of the existing bridge arches, and it is not currently anticipated to have a bridge column placed within the active channel for any of the proposed alternatives.

Caltrans is currently considering three build options for the Existing Alignment alternative. The first option is to replace the existing bridge with a modern bridge that meets current Caltrans design standards. The second option is to replace the existing structure with one that is designed to mimic the look and shape of the existing structure. A visual treatment would be applied to the façade to replicate the stone look. The third option is to replace the existing with a new bridge that has the same look and shape of the existing but to reuse the stones from the existing façade to replicate the look of the original. During construction, the stones would be systematically removed from the façade of the existing bridge, stored during construction, and then reapply them as a visual treatment. However, the construction technique for this final build option is under consideration pending further analysis of the feasibility of construction and a cost-benefits comparison with other proposed alternatives that weighs all of the potential environmental and community impacts.

Potential Environmental Effects

A preliminary environmental analysis report was prepared for this project in 2013 to identify potential areas of concern for human and natural resources that may be affected permanently or temporarily by the project. Since this time, further investigation of the project and development of potential project alternatives has revealed additional areas of concern.

Resources that would be potentially affected by the project are: community impacts, community character, visual/aesthetics, cultural resources, hydrology and floodplain, water quality and stormwater runoff, noise and vibration, biological resources, cumulative impacts, utilities and emergency services, and Section 4(f) concerns.

Resources that are not likely to be affected by the project are: community cohesion, land use designations, inducing population growth, agriculture, timber or mineral extraction, hazardous waste/materials, energy and climate change, air quality, and paleontology.

The following discussion addresses the potential effects of the project related to those resources that may potentially be affected.

Community Impacts: This section of SR-9 connects the City of Saratoga with the Santa Cruz Mountains and is used by both commuters and recreational seekers traveling to and from the South Bay region. Traffic delays caused by construction have the potential to add to the travel time of these road users. Traffic congestion caused by detour routes has the potential to affect both the community of Saratoga and surrounding recreational uses.

Community Character: The Saratoga Creek Bridge is a distinctive bridge that has existed in this location for the last 114 years. It has the potential to be a valued resource to the residents of the City of Saratoga and of Santa Clara County.

Visual/Aesthetics: SR-9 is a designated scenic highway. There are extensive retaining walls proposed for the Southern and Northern Realignment alternatives. These walls will be visible from SR-9. The Saratoga Creek Bridge can be viewed from the Saratoga Springs Resort. All of the build alternatives will alter the visual appearance to the bridge area, though the Existing Alignment alternatives (a) and (b) would replicate the original bridge appearance to the maximum extent practicable.

Cultural Resources: The Saratoga Creek Bridge is a historic bridge and is on eligible for the National Register for Historic Places. There are also potential archeological sites near the project area that may require protection.

Hydrology and Floodplain: Retaining walls, fill material, and abutments built along the Sanborn Creek bank have the potential to alter the local hydrology.

Water Quality and Stormwater Runoff: Work potentially in and around Sanborn Creek and its banks during construction has the potential to release sediment and other construction related runoff into the creek waters.

Noise and Vibration: There is a potential to use pile driving as a construction method for each of the build alternatives. Pile driving may cause a noticeable rise in ambient noise within the area surrounding the project location. This may affect local wildlife and the surrounding residences and campground. Vibrations from pile driving may also have an effect on the local wildlife and on the existing Saratoga Bridge for the Southern and Northern Alignment alternatives.

Biological Resources: Impacts to state and federally listed species and their habitats will be evaluated. Riparian tree removal is anticipated along the banks of Sanborn Creek where the

possible bridge alternatives would be constructed. There may also be trees removed along the hill slopes where the retaining walls would be constructed for each build alternative.

Cumulative Impacts: There are a number of construction projects occurring along SR-9. The environmental and community effects of these projects, in conjunction with this project, will be taken into account.

Utilities and Emergency Services: There are overhead utility poles that run along the existing bridge alignment. These lines will have to be relocated for the project. Access for emergency services along SR-9 will be a concern for construction along the existing alignment due to the potential for road closures during construction. The nearest detour route would add a significant amount of travel time to any trips along this corridor to and from the City of Saratoga.

Section 4(f) Resources: The Saratoga Creek Bridge is considered a protected historic resource, as defined in Section 4(f) of the US Federal Highway Administration's Department of Transportation Act (1966). The first three proposed alternatives have the potential to affect the historic integrity of the existing bridge through alteration of the visual setting of the bridge. Alternative 3 will have the largest impact on the existing bridge since it would guarantee removal of the bridge. However, the Northern and Southern Alignment alternatives also have the potential to negatively affect the existing bridge's structural integrity through the vibrations caused by pile driving if the bridge remains in place for these alternatives.

Additionally, Sanborn County Park is also likely to be considered a protected park resource under Section 4(f). The retaining walls proposed for the Southern, Northern, and Existing Alignment alternatives may require the use of the part of the county park property that abuts SR-9 and part of Sanborn Road.

Scoping Process

Caltrans held a preliminary scoping meeting on March 24, 2016 with the County of Santa Clara and the Santa Clara County Parks Department. Also invited to this meeting, but not in attendance, were representatives of the City of Saratoga, the City of Los Gatos, the City of Monte Sereno, the City of Santa Cruz, the County of Santa Cruz, and the Bike Silicon Valley Coalition. The meeting was held in the Santa Clara County Roads Department building at 101, Skyport Drive in San Jose, CA.

A public scoping meeting has been planned for April 21, 2016 in the Saratoga Prospect Center at 19848 Prospect Road in the City of Saratoga, CA. The meeting will be held from 6 pm until 8 pm and will be attended by the Project Development Team (PDT). Notices for the public scoping meeting will be sent out at least a week in advance and be pulished in the San Jose Mercury news, in local newspapers, and posted in the project area and in public spaces in the City of Saratoga.

Trustee and Responsible agencies will receive a copy of the Notice of Preparation in the mail and a scoping meeting for these agencies is currently being organized pending interest from the agencies. Our current list of Trustee and Responsible agencies includes the following:

Santa Clara County Parks

California Department of Fish and Wildlife

U.S. Department of Fish and Wildlife

U.S. Army Corps of Engineers

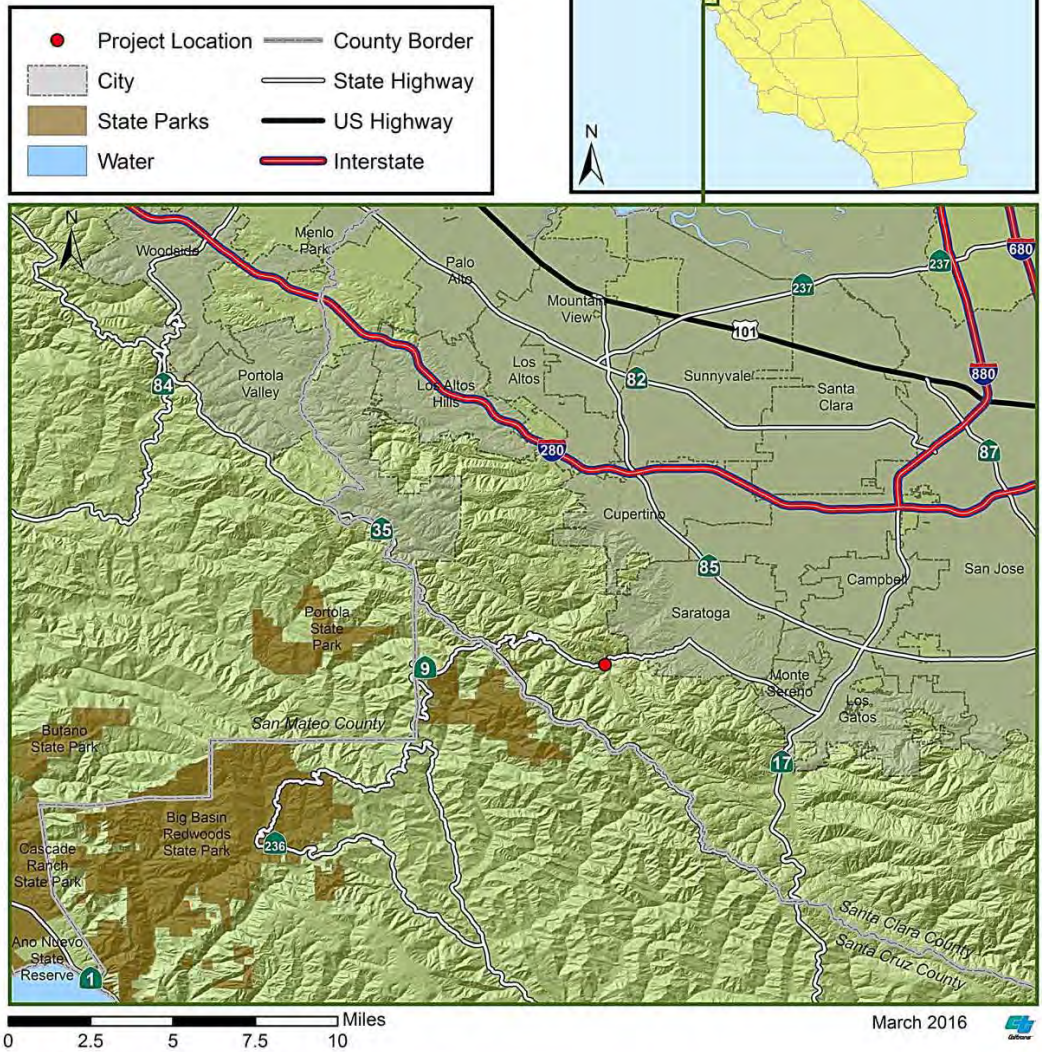
California Native American Heritage Commission

California State Historic Preservation Office

This list is not final and more agencies and organizations may be added as the scoping process develops and other interested parties are identified.

Saratoga Creek Bridge Project

Santa Clara County
State Route 9
Post Miles 4.3/5.3
Project ID #0412000409
EA #04-3G630



Appendix F SHPO Consultation

STATE OF CALIFORNIA – THE NATURAL RESOURCES AGENCY EDMUND G. BROWN, JR., *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

December 20, 2016

Reply in Reference To: FHWA_2016_1102_001

Brett Rushing
Office Chief, Office of Cultural Resource Studies
California Department of Transportation
District 4
111 Grand Avenue
Oakland, CA 94623-1697

Re: Eligibility Determinations for the Replacement of Saratoga Creek Bridge Project in Santa Clara County

Dear Mr. Rushing:

The Office of Historic Preservation received your letter on November 2, 2016 requesting review and comment with regard to the above-referenced undertaking. The California Department of Transportation (Caltrans) is consulting with the State Historic Preservation Officer (SHPO) in accordance with the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Office, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA). In accordance with Stipulation VIII.C.6 of the Section 106 PA and 36 CFR §800.4(c)(2), Caltrans is seeking SHPO concurrence on Caltrans' determination of eligibility. Along with the consultation letter, the following document was provided:

- *Historic Property Survey Report for the Replacement of Saratoga Creek Bridge Project in Santa Clara County*;
- *Historic Resources Evaluation Report for the Replacement of Saratoga Creek Bridge Project in Santa Clara County*; and
- *Archaeological Survey Report for the Replacement of Saratoga Creek Bridge Project in Santa Clara County*.

Caltrans proposes to replace the existing two-span earth filled concrete bridge with rubble masonry spandrel walls that currently crosses Saratoga Creek on State Route (SR) 9 in Santa Clara County. A complete description of the undertaking can be found in Section 1 of the enclosed Historic Property Survey Report (HPSR).

Caltrans has found the following four properties ineligible for listing on the National Register of Historic Places (NRHP):

Name	*Address*	*APN*	*OHP Status Code*
	22900 Big Basin Way, Saratoga	517-04-051	6Z

Mr. Rushing
December 20, 2016

FHWA_2016_1102_001
Page 2 of 2

FSCL-005	22900 Highway 9, Saratoga	517-04-051	6Z
Saratoga Springs Campground	22801 Big Basin Way, Saratoga		6Z
Campbell's Sawmill	Saratoga Springs Campground, Saratoga		6Z

I have reviewed your letter and supporting documentation and **concur** with your determinations. A mid-century can/debris scatter (Primary No. pending) has been recorded in the area of potential effects (APE) and will be considered eligible for the inclusion in the NRHP for the purposes of this undertaking only and will be protected through the establishment of an Environmentally Sensitive Area (ESA) in accordance with Stipulation VIII.C.3 of the Section 106 PA.

Please be advised that under certain circumstances, such as post-review discoveries or a change in the undertaking description, Caltrans may have future responsibilities for this undertaking under the Section 106 PA and 36 CFR Part 800. If you require further information, please contact Natalie Lindquist of my staff at 916-445-7014 or at natalie.lindquist@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

April 26, 2018

VIA EMAIL

In reply refer to: FHWA_2016_1102_001

Ms. Emily Castano, Acting Section 106 Coordinator
Cultural Studies Office
Caltrans Division of Environmental Analysis
1120 N Street, PO Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Finding of Adverse Effect for the Proposed Saratoga Creek Bridge Replacement Project, Santa Clara County, CA

Dear Ms. Castano:

Caltrans is continuing consultation about the subject undertaking in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration (FHWA), 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* (PA). As part of your documentation, Caltrans submitted a Finding of Adverse Effect (FOAE) for the proposed project.

Caltrans proposes to either retrofit or completely replace the Saratoga Creek Bridge. The bridge has several deficiencies and retrofitting/replacing the bridge is required to ensure the safety of the traveling public and to maintain connectivity along SR 9 between the City of Saratoga and the community of Felton in Santa Cruz County.

Identification efforts for the project found that there is one historic property, the Saratoga Creek Bridge (37-0074), which was determined eligible for the National Register of Historic Places under Criteria A and C.

Pursuant to Stipulation IV and V of the PA, Caltrans has initiated and/or is in continuing consultation with Native Americans and other interested parties as summarized on pages 10-13 of the FOAE.

Ms. Castano
April 26, 2018
Page 2

FHWA_2016_1102_001

Pursuant to Stipulation X.A. of the PA, Caltrans applied the criteria of adverse effect set forth at 36 CFR 800.5(a)(1) and finds that the undertaking will a direct adverse effect on the Saratoga Creek Bridge.

Based on my review of the submitted documentation, I have no objection to this finding.

If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 with e-mail at natalie.lindquist@parks.ca.gov or Alicia Perez at (916) 445-7020 with e-mail at alicia.perez@parks.ca.gov .

Sincerely,

Julianne Polanco
State Historic Preservation Officer

Appendix G Memorandum of Agreement

MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION
AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE SARATOGA CREEK BRDIGE PROJECT,
NEAR THE CITY OF SARATOGA, SANTA CLARA COUNTY, CALIFORNIA

WHEREAS, the Federal Highway Administration (FHWA), has assigned and California Department of Transportation (Caltrans) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Project Delivery Program Pursuant to 23 U.S.C. 327*, which became effective on December 23, 2016, and applies to this undertaking; and

WHEREAS, pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and 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* (Section 106 PA), Caltrans is deemed to be a federal agency for all highway-aid projects it has assumed, and in that capacity Caltrans has assigned the role of "agency official" to the Caltrans Division of Environmental Analysis (DEA) Chief for the purpose of compliance with 36 CFR 800 and is responsible for oversight of District environmental responsibilities. To provide for effective compliance, day-to-day responsibilities and coordination of the Section 106 process are further delegated to the DEA Cultural Studies Office (CSO) Chief; and

WHEREAS, Caltrans proposes to implement the federally funded Saratoga Creek Bridge project (Undertaking) on State Route 9 (SR-9) in Santa Clara County, which would construct a new bridge inside the existing Saratoga Creek Bridge between postmiles 4.6/5.1, as described in Attachment A; and

WHEREAS, Caltrans has consulted with the California State Historic Preservation Officer (SHPO) pursuant to Stipulations X.C, and XI of the Section 106 PA, and, where the Section 106 PA so directs, in accordance with 36 CFR Part 800, the regulation that implements Section 106 of the National Historic Preservation Act of 1966 (54 USC Section 470 (f)), as amended (NHPA), regarding the Undertaking's effects on historic properties, and has notified the Advisory Council on Historic Preservation (ACHP) and will file a copy of this Memorandum of Agreement (MOA) with the ACHP in accordance with Stipulation X.C. 3.b of the Section 106 PA; and

WHEREAS, the Undertaking's Area of Potential of Effects includes maximum existing or proposed right-of-way for the alternative under consideration, easements (temporary and permanent), all improved properties subject to temporary or permanent changes in access (ingress and egress), and areas where visual or audible changes could occur outside the required right-of-way, as described in Attachment B; and

1 of 12

WHEREAS, Caltrans has determined that the Undertaking will have adverse effects on the Saratoga Creek Bridge, a property eligible for listing in the National Register of Historic Places (National Register) under Criterion A for its association with transportation trends and the settlement of the Santa Clara County, as well as under Criterion C for its engineering and architectural aesthetics; and

WHEREAS, Caltrans in consultation with SHPO, has determined that the Undertaking's adverse effects cannot be avoided and that implementation of the treatments set forth in Stipulations I, II and III of this MOA will satisfactorily take into account the Undertaking's adverse effects on the historic properties; and

WHEREAS, Caltrans District 4 has a responsibility to fulfill terms of this MOA and is participating as invited signatories; and

WHEREAS, Caltrans has consulted with Saratoga Historical Foundation, Santa Clara County Historical Heritage Commission, San Jose Public Library, Saratoga Library, Historic Bridge Foundation, Preservation Action Council San Jose, California Historical Society, California Preservation Foundation, History San Jose, Santa Clara County Parks – Sanborn County Park, and the Santa Clara County Historical & Genealogical Society regarding the Undertaking and its adverse effect on the subject historic property and have invited them to participate in the development and implementation of mitigation;

WHEREAS, Caltrans has initiated consultation with Ohlone/ Costanoan groups and individuals including representatives from the Amah Mutsun Tribal Band of Mission San Juan Bautista; Indian Canyon Mutsun Band of Costanoan; Muwekma Ohlone Indian Tribe of the SF Bay Area; The Ohlone Indian Tribe; and the Amah Mutsan Tribal Band; Jakki Kehl, Katherine Erolinda Perez, and Linda Yamane, regarding the Undertaking and none of the groups or individuals requested to be a consulting party; will continue to consult with them and will afford them, should they so desire, the further opportunity to more directly and actively participate in the implementation of the Undertaking itself and this MOA;

NOW, THEREFORE, Caltrans and the SHPO agree that, upon Caltrans' decision to proceed with the Undertaking, Caltrans shall ensure that the Undertaking is implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on the historic properties, and further agrees that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

Caltrans shall ensure that the following stipulations are carried out:

I. AREA OF POTENTIAL EFFECTS

A. The Undertaking's Area of Potential Effects (APE) is depicted as Attachment B of this MOA. The APE includes the maximum existing or proposed right-of-way for the alternative under consideration, easements (temporary and permanent), all improved properties subject to temporary or permanent changes in access (ingress and egress), and areas where visual or audible changes could occur outside the required right-of-way.

B. If modifications to the Undertaking subsequent to the execution of this MOA necessitate the revision of the APE, District 4 will consult with Caltrans and the SHPO to facilitate mutual agreement on the subject revisions. If Caltrans, District 4, and the SHPO cannot reach such agreement, then the parties to this MOA shall resolve the dispute in accordance with Stipulation IV.B below. If Caltrans, District 4, and the SHPO reach mutual agreement on the proposed revisions, then District 4 will submit a final map of the revisions, consistent with the requirements of Stipulation VIII.A and Attachment 3 of the Section 106 PA no later than 30 days following such agreement. Any additional required identification and evaluation efforts necessitated due to changes to the APE will be undertaken consistent with the requirements of Stipulation VIII.B and VIII.C of the Section 106 PA. Amendment of the APE will not require an amendment to the MOA. The revised APE and supporting documentation shall be incorporated into Attachment B to this MOA.

II. TREATMENT OF HISTORIC PROPERTIES

Caltrans District 4 shall:

A. Prior to commencement of any work that could adversely affect any characteristics that qualifies the Saratoga Creek Bridge as a historic property, Caltrans District 4 shall document the Saratoga Creek Bridge in accordance with the standards of the Historic American Engineering Record (HAER). Documentation will be HAER Level II and will include large-format architectural drawings, archival photographs and narrative description of the Saratoga Creek Bridge. Documentation will be completed by a qualified professional who meets the standards for History or Architectural History set forth by the Secretary of the Interior's Professional Qualification Standards (36 CFR, Part 61).

1. Photographic documentation will include up to ten (10) views of the Saratoga Creek Bridge, in addition to the following:
    a. Contextual views showing the historic property in its setting;
    b. Elevation and oblique views; and
    c. Detail views of character-defining features.

2. Documentation shall include plans, sections and elevations of Saratoga Creek Bridge. These plans will be photographically reproduced in accordance with HAER photographic specifications or included in the report as reduced size copies that fit onto 8-1/2" x 11" paper, if legible in this format.

3. The narrative description shall include the history of the Saratoga Creek Bridge within the context of transportation along State Route 9 .

4. The final documentation will be distributed to the SHPO, Caltrans District 4, the Caltrans Transportation History Library in Sacramento, and the San Jose Public Library. Caltrans will also offer the documentation and provide copies upon request to the Santa Clara County Planning Department; Santa Clara County Parks; Saratoga Historical Foundation; History San Jose; Preservation Action Council San Jose; California Preservation Foundation; California Historical Society; and San Jose Public Library.

B. Prior to commencement of any work that could adversely affect any characteristics that qualifies the Saratoga Creek Bridge as a historic property, Caltrans District 4 shall complete a three-dimentional (3D) scan, such as LiDAR, of the Saratoga Creek Bridge that can be developed into a digital 3D model. The scan will be made available to History San Jose; Preservation Action Council and San Jose Public Library. Caltrans District 4 will also offer the scan to the Santa Clara County Planning Department; Santa Clara County Parks; Saratoga Historical Foundation; California Preservation Foundation; and the California Historical Society.

C. Caltrans District 4 shall research and write a historical narrative of the transportation history along State Route 9 from the nineteenth century to the twentieth century, including the history of previous crossings at the current location of the Saratoga Creek Bridge. The narrative will incorporate historical information from the HAER report and other relevant historical reports or documentary sources to create an electronic publication.

   1. The electronic publication will be made available on a public website for a minimum for the life of the project and will be archived in perpetuity for future access on the Caltrans mitigation website prior to termination of this MOA. The information link will also be made available to the Caltrans Transportation Library and History Center at Caltrans Headquarters in Sacramento for inclusion on its website. Additionally, the link will be provided to stakeholder groups, including the Santa Clara County Planning Department; Santa Clara County Parks; Saratoga Historical Foundation; History San Jose; Preservation Action Council San Jose; California Preservation Foundation; California Historical Society; and San Jose Public Library.

D. Caltrans District 4 shall develop content for a Campfire Program at Sanborn County Park. The content will discuss the transportation history along State Route 9 with specific reference to the history and significance of the Saratoga Creek Bridge and its contribution to the development of recreation and industry in the area. The program will incorporate the historical information from the HAER report and other relevant historical reports or documentary sources. It will be made available for use to the Sanborn County Park at their discretion.

E. Caltrans District 4 will create electronic content for a smartphone application (such as Clio or Historypin) that describes and interprets historic resources identified in California Historical Landmark Nomination #435, of which the Saratoga Creek Bridge is listed. The content will include historical narrative information, as well as historical photographs and other documentation. This application will be available free to the public through smartphone application stores prior to the termination of this agreement.

III. DISCOVERIES, UNANTICIPATED EFFECTS

A. As legally mandated, human remains and related items discovered during implementation of the terms of this Agreement and the Undertaking will be treated in accordance with the requirements of Health and Safety Code Section 7050.5(b). If pursuant to Health and Safety Code § 7050.5(c), the coroner determines that the human remains are or may be those of a Native American, then the discovery shall be treated in accordance with the provisions of Public Resources Code § 5097.98 (a)(d). The County Coroner shall be contacted if human remains are discovered. The County Coroner shall have two working days to inspect the remains after receiving notification. During this time, all remains, associated soils, and artifacts shall remain in situ and/or on site, and shall be protected from public viewing. This may include restricting access to the discovery site and the need to hire 24-hour security.

The County Coroner has 24 hours to notify the NAHC. The NAHC shall then notify a Most Likely Descendant (MLD), who has 48 hours to make recommendations to the landowner. District 4 shall contact the California SHPO and the Most Likely Descendent(s) within 24 hours of the County Coroner's determination that the remains are Native American in origin. Caltrans District 4 shall ensure that the views of the Most Likely Descendent(s), as determined by the NAHC, is taken into consideration when discussions are made about the disposition of Native American human remains and associated objects. Caltrans District 4 shall take appropriate measures to protect the discovery site from disturbance during any negotiations. Information concerning the discovery shall not be disclosed to the public pursuant to the specific exemption set forth in California Government Code Section 6254.5(e).

A. If Caltrans determines, during implementation of the terms of this MOA or after construction of the Undertaking has commenced, that the Undertaking will affect a previously unidentified property that may be eligible for listing in the National Register, or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR Section 800.13(b)(3). Caltrans at its discretion may hereunder assume any discovered property to be eligible for the National Register in accordance with 36 CFR Section 800.13.

IV. ADMINISTRATIVE PROVISIONS

A. STANDARDS

1. **Definitions**. The definitions provided at 36 CFR Section 800.16 are applicable throughout this MOA.

2. Parties to this agreement are defined as follows:

   a. **Signatory parties** have the sole authority to execute, amend or terminate the MOA.

   b. **Invited signatories** have the authority to amend or terminate the MOA.

   c. **Concurring parties,** signing the MOA do so to acknowledge their agreement or

concurrence with the MOA, but have no legal authority under the MOA to terminate or amend the MOA. Concurring with the terms of the MOA does not constitute their agreement with the Undertaking.

d. **Professional Qualifications.** Caltrans shall ensure that the actions and products required by Stipulation II of this MOA shall be carried out by or under the direct supervision of persons meeting the *Secretary of the Interior's Professional Qualification Standards for Archeology and Historic Preservation* (36 CFR Part 61) in the relevant field of study.

B. RESOLVING OBJECTIONS

1. Should any party to this MOA object at any time in writing to the manner in which the terms of this MOA are implemented, to any action carried out or proposed with respect to implementation of the MOA (other than the Undertaking itself), or to any documentation prepared in accordance with and subject to the terms of this MOA, Caltrans shall immediately notify the other MOA parties of the objection, request their comments on the objection within 15 days following receipt of Caltrans' notification, and proceed to consult with the objecting party for no more than 30 days to resolve the objection. Caltrans will honor the request of the other parties to participate in the consultation and will take any comments provided by those parties into account.

2. If the objection is resolved during the 30-day consultation period, Caltrans may proceed with the disputed action in accordance with the terms of such resolution.

3. If at the end of the 30-day consultation period, Caltrans determines that the objection cannot be resolved through such consultation, then Caltrans shall forward all documentation relevant to the objection to the ACHP, including Caltrans' proposed response to the objection, with the expectation that the ACHP will, within thirty (30) days after receipt of such documentation:

   a. Advise Caltrans that the ACHP concurs in Caltrans' proposed response to objection, whereupon Caltrans will respond to the objection accordingly. The objection shall thereby be resolved; or
   b. Provide Caltrans with recommendations, which Caltrans will take into account in reaching a final decision regarding its response to the objection. The objection shall thereby be resolved; or
   c. Notify Caltrans that the objection will be referred for comment pursuant to 36 CFR §800.7(c) and proceed to refer the objection and comment. Caltrans shall take the resulting comments into account in accordance with 36 CFR § 800.7(c)(4) and Section 110(1) of the NHPA. The objection shall thereby be resolved.

4. Should the ACHP not exercise one of the above options within 30 days after receipt of all pertinent documentation, Caltrans may proceed to implement its proposed response. The objection shall thereby be resolved.

5. Caltrans shall take into account any of the ACHP's recommendations or comments provided in accordance with this stipulation with reference only to the subject of the objection. Caltrans's responsibility to carry out all actions under this MOA that are not the subjects of the objection shall remain unchanged.

6. At any time during implementation of the measures stipulated in this MOA, should a member of the public raise an objection in writing pertaining to such implementation to any signatory party to this MOA, that signatory party shall immediately notify Caltrans. Caltrans shall immediately notify the other signatory parties in writing of the objection. Any signatory party may choose to comment in writing on the objection to Caltrans. Caltrans shall establish a reasonable time frame for this comment period. Caltrans shall consider the objection, and in reaching its decision, Caltrans will take all comments from the other signatory parties into account. Within 15 days following closure of the comment period, Caltrans will render a decision regarding the objection and respond to the objecting party. Caltrans will promptly notify the other signatory parties of its decision in writing, including a copy of the response to the objecting party. Caltrans' decision regarding resolution of the objection will be final. Following issuance of its final decision, Caltrans may authorize the action subject to dispute hereunder to proceed in accordance with the terms of that decision.

7. Caltrans shall provide all parties to this MOA, and any parties that have objected pursuant to section B.3 and B.4 of this stipulation, with a copy of its final written decision regarding any objection addressed pursuant to this stipulation.

8. Caltrans may authorize any action subject to objection under this stipulation to proceed after the objection has been resolved in accordance with the terms of this stipulation.

C. AMENDMENTS

Any signatory party to this MOA may propose that this MOA be amended, whereupon all signatory parties shall consult for no more than 30 days to consider such amendment. The amendment will be effective on the date a copy signed by all of the original signatories. If the signatories cannot agree to appropriate terms to amend the MOA, either signatory may terminate the agreement in accordance with Stipulation III.D, below.

D. TERMINATION

1. If this MOA is not amended as provided for in Section C of this stipulation, or if either signatory proposes termination of this MOA for other reasons, the signatory party proposing termination shall, in writing, notify the other MOA parties, explain the reasons for proposing termination, and consult with the other parties for at least 30 days to seek alternatives to termination. Such consultation shall not be required if Caltrans proposes termination because the Undertaking no longer meets the definition set forth in 36 CFR Section 800.16 (y).

2. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with the terms of that agreement.

3. Should such consultation fail, the signatory party proposing termination may terminate this MOA by promptly notifying the other MOA parties in writing. Termination hereunder shall render this MOA without further force or effect.

4. If this Agreement is terminated hereunder, and if Caltrans determines that the Undertaking will nonetheless proceed, then Caltrans shall comply with the requirements of the Section 106 PA, or request the comments of the ACHP pursuant to 36 CFR Part 800.

E. DURATION OF THE MOA

1. Unless terminated pursuant to Section C of this stipulation, or unless it is superseded by an amended MOA, this MOA will be in effect following execution by the signatory parties until Caltrans, in consultation with the other signatory parties, determines that all of its stipulations have been satisfactorily fulfilled.

2. The terms of this MOA shall be satisfactorily fulfilled within five (5) years following the date of execution by the signatory parties. If Caltrans determines that this requirement cannot be met, the MOA parties will consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment of the MOA, or termination. In the event of termination, Caltrans will comply with Section D of this stipulation if it determines that the Undertaking will proceed notwithstanding termination of this MOA.

3. If the Undertaking has not been implemented within five (5) years following execution of this MOA, this MOA shall automatically terminate and have no further force or effect. In such event, Caltrans shall notify the other signatory parties in writing and, if it chooses to continue with the Undertaking, shall reinitiate review of the Undertaking in accordance with the Section 106 PA.

F. REPORTING REQUIREMENTS AND RELATED REVIEWS

Caltrans District 4 shall provide the parties to this agreement an annual update. Such updates shall include any scheduling changes proposed, any problems encountered, failures to adopt proposed mitigation measures, and any disputes and objections received in Caltrans' efforts to carry out the terms of this MOA. The update will be due no later than December 31 of each year, beginning December 31, 2019 and continuing annually thereafter throughout the duration of this MOA. If MOA parties deem it necessary, a meeting will be scheduled in lieu of an update.

G. EFFECTIVE DATE

This MOA will take effect on the date that it has been executed by Caltrans and the SHPO.

EXECUTION of this MOA by Caltrans and the SHPO, its filing with the ACHP in accordance with 36 CFR Section 800.6 (b)(l)(iv), and subsequent implementation of its terms, shall evidence, pursuant to 36

CFR Section 800.6 (c), that this MOA is an agreement with the ACHP for purposes of Section 110 (1) of the NHPA, and shall further evidence that Caltrans has afforded the ACHP an opportunity to comment on the Undertaking and its effects on historic properties, and that Caltrans has taken into account the effects of the Undertaking on historic properties.

MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION
AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE SARATOGA CREEK BRDIGE PROJECT,
NEAR THE CITY OF SARATOGA, SANTA CLARA COUNTY, CALIFORNIA

SIGNATORY PARTIES:

California Department of Transportation

By _____ 19 June 2019
Philip J. Stolarski, Division Chief — Date
Caltrans Division of Environmental Analysis

California State Historic Preservation Officer

By _____ 20 June 2019
Julianne Polanco — Date
State Historic Preservation Officer

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MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION
AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE SARATOGA CREEK BRDIGE PROJECT,
NEAR THE CITY OF SARATOGA, SANTA CLARA COUNTY, CALIFORNIA

INVITED SIGNATORY:

California Department of Transportation

By _____ 6/28/19
District Director
District 4, Oakland

Date

10 of 12

Attachment A: Project Description

The project will build a new composite steel girder bridge within the existing bridge. The existing bridge will remain and serve as a façade to the new bridge. Minor cosmetic repairs and scour protective measures will be made to the existing bridge to address some of the documented deficiencies, including scour protection measures along the creek banks near the existing foundation. The existing bridge will remain seismically vulnerable; however, this would not affect the structural integrity of the new bridge.

Construction of the bridge will commence with cast-in-drilled hole piles being installed along with reinforcing steel, and formwork, onto which concrete will be poured. Where practical, precast members will be used to minimize construction time. Steel plates will be placed over the piles. Precast abutment and bent caps will be placed at the abutments and piers. The top layer of rubble infill will be excavated. Temporary support will be placed inside the existing bridge and be used to support the steel girder segments as they are bolt field splices to form one continuous steel beam. Once all the girders are installed, precast prestressed concrete deck panels will be erected over the girders. Approach slabs and polyester concrete overlay will then be constructed to tie the new bridge with the existing portion of State Route 9. New concrete barriers and guardrail will be constructed.

Attachment B: Area of Potential Effects Map

Figure 1. Area of Potential Effects Map

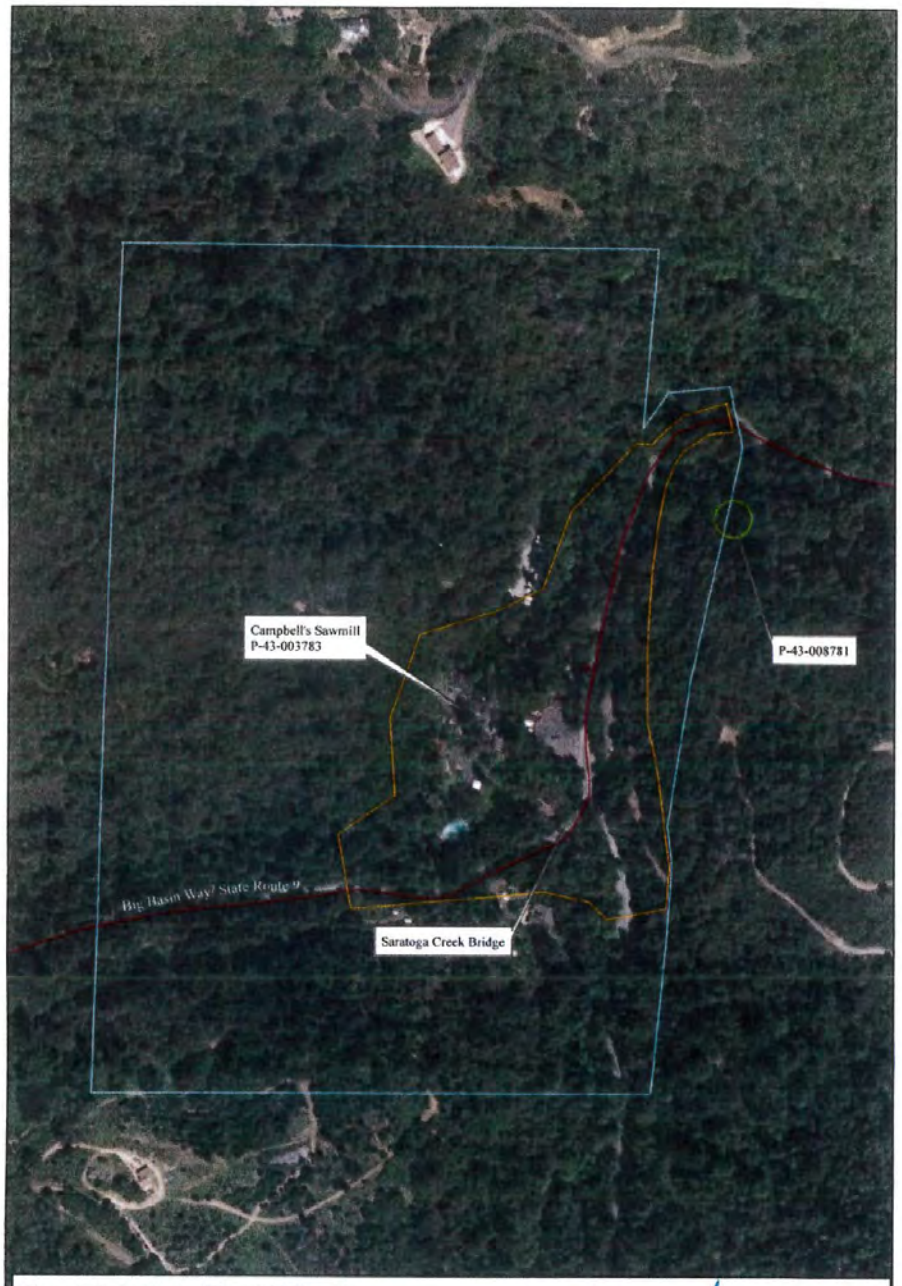

Figure 2. Revised Area of Potential Effects Map

Saratoga Creek Bridge Replacement Project
Santa Clara County, California
4-SCL-9 Post Mile 4.75
EA 3G630- EFIS 0412000409

N

Architectural History APE

Archaeology APE

0 250 500 1,000 Feet

Scale 1:4,000

Project Manager
for Inder Preet Singh, Acting PM — 3/26/18 Date

PQS Architectural Historian
Helen Blackmore — 7/26/18 Date

PQS Co-Principal Investigator, Archaeologist
Kristina Montgomery — 3/26/18 Date

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Appendix H U.S. Fish and Wildlife Service Species List

United States Department of the Interior

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

In Reply Refer To:
Consultation Code: 08ESMF00-2016-SLI-1776
Event Code: 08ESMF00-2020-E-02424
Project Name: Saratoga Creek Bridge Replacement

January 14, 2020

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2016-SLI-1776

Event Code: 08ESMF00-2020-E-02424

Project Name: Saratoga Creek Bridge Replacement

Project Type: TRANSPORTATION

Project Description: The California Department of Transportation (Caltrans) has classified the Saratoga Creek Bridge as "functionally obsolete" with a sufficiency rating of 35.6 out of 100 after documenting a number of significant seismic, traffic safety, hydraulic, and structural concerns that could undermine the future ability of the structure to continue providing reliable traffic service. The existing bridge lies at post mile 4.85 on State Route 9 (SR 9) in Santa Clara County, adjacent to Saratoga Springs Picnic & Campgrounds and just north of Sanborn County Park. The purpose of this project is to maintain connectivity along SR 9 between the City of Saratoga and the community of Felton in Santa Cruz County. The three build alternatives under consideration include 1) retrofitting the existing bridge, 2) constructing a new bridge at the current alignment that aesthetically resembles the existing bridge and 3) constructing a new bridge at the current alignment that is aesthetically modern. The project is currently expected to take approximately two construction seasons to complete. Night work may be necessary.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.249778460906796N122.06827678024297W

Counties: Santa Clara, CA

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened

Amphibians

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

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Bay Checkerspot Butterfly *Euphydryas editha bayensis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2320	Threatened
San Bruno Elfin Butterfly *Callophrys mossii bayensis* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Nagarkar, Mita@DOT

From: Nagarkar, Mita@DOT
Sent: Tuesday, January 14, 2020 8:25 AM
To: nmfswcrca.specieslist@noaa.gov
Subject: Saratoga Creek Bridge Replacement Project Updates Species List

Agency name: California Department of Transportation (District 4)
Address: 111 Grand Ave, Oakland, CA 94612
Project Name: Saratoga Creek Bridge Replacement Project
Point-of-contact Name: Mita Nagarkar
Email: mita.nagarkar@dot.ca.gov
Phone: 510-286-5636

Quad Name **Castle Rock Ridge**
Quad Number **37122-B1**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

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

1

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

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

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

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Cupertino**
Quad Number **37122-C1**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

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

ESA Marine Invertebrates

3

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

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

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -
MMPA Pinnipeds -

Appendix I U.S. Fish and Wildlife Service Biological Opinion

United States Department of the Interior

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

In Reply Refer to:
08ESMF00-
2016-F-2295-1

MAY 04 2018

Ms. Jo Ann Cullom
California Department of Transportation
Environmental Division, MS-8E
111 Grand Avenue
Oakland, California 94612

Subject: Formal Consultation on the State Route 9 Saratoga Creek Bridge Replacement Project, Santa Clara County, California (Caltrans EA 04-3G630)

Dear Ms. Cullom:

This letter is in response to the California Department of Transportation's (Caltrans) February 22, 2018, request to initiate formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed State Route (SR) 9 Saratoga Creek Bridge Replacement Project in Santa Clara County, California. Your request was received by the Service on February 16, 2018. At issue are the proposed project's effects on the Federally threatened California red-legged frog (*Rana draytonii*). Critical habitat has been designated for the California red-legged frog but does not occur within the action area. This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.)(Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

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

The federal action we are consulting on includes the replacement of the existing SR 9 bridge crossing of Sanborn Creek (also referred to as the Saratoga Creek Bridge) at Post Mile 4.9. Caltrans submitted a Biological Assessment (BA) for our review and requested concurrence with the findings presented therein. These findings conclude that the proposed project may affect, and is likely to adversely affect the California red-legged frog.

In considering your request, we based our evaluation on the following: (1) an October 21, 2016 field visit; (2) Caltrans' February 22, 2018 request for consultation and accompanying February 2018 BA; (3) Caltrans' March 8, 2018, response to the Service's March 7, 2018, electronic mail (e-mail) message; and (4) other information available to the Service.

The remainder of this document provides our biological opinion on the effects of the proposed project on the California red-legged frog.

Consultation History

June 16, 2016:	The Service received introductory project information and Caltrans' initial request for technical assistance.
July 27, 2016:	The Service received additional project information from Caltrans via an e-mail message.
October 21, 2016:	The Service visited the proposed project site with Caltrans for general orientation and to provide technical assistance.
February 27, 2018:	The Service received Caltrans' February 22, 2018, request for consultation along with a February 2018 BA.
March 7, 2018:	The Service sent Caltrans an e-mail message concerning our review of their February 2018 BA. The message was the functional equivalent of a 30-day letter.
March 8, 2018:	The Service received Caltrans' response to our March 7, 2018, request for additional information needed to complete the consultation.

BIOLOGICAL OPINION

Description of the Action

According to Caltrans, the purpose of the proposed project is to replace the existing SR 9 Sanborn Creek Bridge at Post Mile 4.9 while maintaining through traffic. To achieve this, half of the new bridge will be constructed adjacent to the existing bridge. Traffic will be shifted to the new half bridge while the old bridge is demolished. The remaining half will be constructed and followed by fusing of the two halves. Construction will require extensive work within the Sanborn Creek bed and bank, including the establishment of temporary access, dewatering, and flow diversion.

The proposed project will proceed as follows:

1. Retaining walls will be constructed along Sanborn Road.
2. A construction access road will be constructed and dewatering and creek diversion will be implemented.
3. A one-lane bridge will be constructed directly adjacent to the existing structure.
4. New roadway approaches through the project limits will be constructed.
5. Traffic will be diverted onto the new bridge.
6. The existing 146-by-24-foot bridge will be demolished.
7. A one-lane bridge will be constructed in the place of the former bridge.

8. The two bridge sections will be connected and sealed with the deck closure pour creating the completed 40-foot wide bridge.

9. Rock slope protection (RSP) will be installed at the base of the central piling to prevent scour.

Further details concerning construction methods and project components are as follows:

Site Preparation
As the first order of business, temporary high-visibility fencing and silt fencing will be installed within the project footprint to define the project footprint boundaries and discourage entry in to surrounding environmentally sensitive areas such as jurisdictional waters, special-status species habitat, and natural communities of concern beyond the described ground-disturbing actions. The fencing will remain in place throughout the project duration and will be inspected regularly and fully maintained. Repairs will be made within 24 hours of discovery of damage that can compromise the purpose of the fencing. The fencing will be removed only when all construction equipment is removed from the job site.

Pre-construction surveys for the California red-legged frog and other special status resources will be completed prior to the start of ground-disturbing activities.

Vegetation hanging over the paved work area will be trimmed and trees will be removed in the areas of bridge, access road, or retaining wall construction.

In areas subject to ground disturbance, native topsoil will be salvaged and stored until project completion, then replaced.

Construction Staging Area
Two areas will be used for construction staging and materials storage areas. One will be located within an existing picnic area on the northern side of the footing for the existing bridge. The other will be located in an existing parking area at the intersection of Sanborn Road and SR-9.

Construction Access
One or more temporary construction access roads will be established to provide access for construction equipment and crews from the existing roadway to the work area beneath the bridge. At this stage of project design, two access roads are proposed.

Access Option 1 would include the use of an existing paved access road within private property to the north of the bridge. This road meanders downslope from the property's parking lot next to the eastern end of the bridge, down to the base of the bridge. The route includes use of an existing steel bridge over Sanborn Creek which may be used for the access route. If this bridge is determined to be unable to support the heavier loads, actions will be needed to strengthened it or establish a separate temporary creek crossing. Vegetation clearing and grading will be needed to widen Access Option 1 to accommodate equipment.

Access Option 2 will be cut into the side slope below SR-9. This access route will parallel SR-9, starting approximately 600 feet west of the existing bridge and descending toward the creek bed below at an approximately 17 percent grade slope. The access road will be at least 24 feet wide. Establishment will require extensive vegetation removal and grading.

Temporary retaining walls and/or a temporary trestle may be needed in steep slope areas to support the base of the access roads. If used, trestle supports would be composed of steel or wooden piles driven into the hillside with steel and/or wooden beams and decking.

Temporary Falsework/Support
Heavy equipment will be used to construct temporary falsework under the existing bridge. The falsework will be situated on a temporary platform established over the creek bed. The falsework will be used for both bridge demolition and construction.

Temporary Creek Crossing/Creek Diversion
A temporary creek crossing and/or creek diversion system will be established to provide a stable work zone and to protect the creek bed. A creek crossing would provide a platform over the creek bed from which crews would work and equipment, and the above described framework, would be situated. This platform will likely be a culvert or a bridge. The crossing and diversion will be removed after each June 15th to October 15th, creek bed work window.

A temporary creek diversion system will be installed to dewater the work area and route continued flow of the creek through the work area in a protected and contained system. Work within the stream bed is expected to occur from June 15 to October 15. A pump system will be used if dewatering of the work area is necessary. The diversion system will be placed at the up and downstream ends of the construction easement, a minimum of 50 feet from the upper and lower extent of construction.

Cofferdams will be constructed up and downstream of the roadway to form the diversion. The dams will be up to 5 feet tall and will consist of stacked gravel bags wrapped in plastic sheeting to prevent seepages. A subsurface cutoff wall below the cofferdams may be needed to reduce water infiltration into the work area, which would require additional pumping. A pipe, up to 3 feet in diameter, would convey stream flow between the two cofferdams, thus creating a dry work area. Work necessary for removing the culvert and reconstructing and regrading the channel to restore the creek to its natural setting would take place in the area between the cofferdams.

Cofferdams will be constructed of a non-erodible material that does not contain soil or fine-grained sediment. Cofferdams and the stream diversion system will remain in place and functional throughout the construction season. Reintroduction of stream flows will be gradual to the isolated work area to prevent stranding of aquatic wildlife, channel instability, or excessive scour. The Service-Approved Biological Monitor will monitor upstream and downstream reaches to ensure aquatic species are not stranded or in distress during reintroduction of flows. If conditions causing or contributing to stress and/or injury to aquatic organisms are observed, Caltrans will take immediate remedial actions directed at lessening sources of stress. This may include a more gradual reintroduction of flows to avoid abrupt water surface elevation changes both downstream and upstream of the action area.

Cofferdams or stream diversions that fail for any reason will be repaired immediately along with the temporary creek diversion system adjacent to the cofferdams. Work necessary for removing the existing culvert and the backfill around it to revert the creek to its near-natural setting will take place in the dry environment created between the cofferdams. The diversion will be installed and removed manually if there is no dry access for equipment to operate.

Caltrans will submit the creek diversion plan to the Service for review 10 working days prior to its installation. The temporary dewatering system will be removed by October 15 at the end of the construction season.

Foundation Work
Activities associated with the construction of the foundations for abutments, bents, and retaining walls will consist of excavating earth material down to the bottom of the footings, installing piling, placing reinforcing steel bars, constructing formwork, and pouring concrete.

Bridge Construction and Staging
The construction of the new bridge will be done in multiple phases. During the first phase, half of the new bridge will be constructed adjacent to the existing bridge, which will remain open to traffic during this time. Work will start with the installation of piles at the new location for the abutments, bent, and superstructure. Pile columns will be 18-inch-diameter, steel shell piles. They will be installed in the ground to act as anchors for the foundation and columns of the bridge. The abutments are the support components at either end of the bridge. They will be anchored in the ground and support the bridge deck. The bent is a transverse bridge component that supports the bridge structure. It is composed of a column and a bent cap.

The new foundation, columns, abutments, and bent cap will be constructed after the piles are in place. The superstructure will then be built on top of the support structure. The superstructure is the body of the bridge that sits atop the bent. It includes the bridge deck, slabs, girders, and bridge railing. Traffic will then be re-routed onto the completed half of the new bridge, and the existing bridge will be removed.

In the last phase, the second half of the new bridge will be constructed, similarly to the first half, in the location of the old bridge. The two fully constructed halves of the bridge will then be joined together with a closure pour of the deck. Once this is completed, the new deck will be restriped, and two-way traffic will be restored.

The new bridge will be widened to a total of 40 feet in order to allow for 12-foot wide travel lanes and 8-foot wide shoulders in both travel directions. Small retaining walls will be built into the new bridge abutments to support the new widening.

Retaining Walls
Retaining walls along Sanborn Road and on SR-9 will need to be constructed leading up to the bridge to accommodate the roadway approaches to the new half bridge. The retaining wall on the west approach will be approximately 250-feet long, with a maximum height of 15 feet. The wall on the east approach will be approximately 375-feet long, with a maximum height of 25 feet. Both walls will be located upslope from SR-9. Piles may be required for the retaining walls, depending on the type of retaining wall suitable for each location. A safety barrier will be constructed at the base of the retaining walls.

Rock Slope Protection
RSP and rip rap, or a similar countermeasure, will be used to protect the central bridge pier. The existing material will be excavated and the RSP will be placed along the creek bank at the base of the pier.

Utility Relocation
The existing electrical and telephone utility poles within the project boundary will be temporarily relocated prior to construction. Their temporary locations will still be within the project boundary, but outside of the areas where active construction will take place. The utility poles will be temporarily relocated, using cranes, working from the existing roadway or one of the temporary construction access roads. This process will be completed as quickly as possible to minimize disruption to utilities. Some vegetation trimming may be required to provide a clear pathway for the utility lines between the new pole locations. If possible, the utility lines will be moved back to their original locations once the project is completed.

Drainage Systems
As a result of a wider bridge structure, a new drainage system will be required to accommodate the additional volume of rainwater collected from the increased bridge deck surface area. The new drainage system will be tied into the existing drainage systems. If the existing systems are determined to be inadequate, the existing system will be upgraded or expanded, including additional drainage inlets, as necessary to help reduce the velocity of storm water runoff from the road surface of SR-9. The drainage systems may include, but are not be limited to, drainage inlets and gutters.

Site Clean-Up and Restoration
All construction-related materials, including fencing, will be removed after construction has been completed for each activity, at the end of the construction season and project completion. Areas identified as temporary access and work space will be restored at the completion of the project. These areas will be recontoured if appropriate and replacement native vegetation will be planted in areas where they will not affect roadway safety. Revegetation specifications will be provided later during the design phase of the project. Proposed work will likely include incorporating amendment of the soil; planting native trees, shrubs, and ground cover such as grasses or forbs species; caring for the planting to ensure a healthy, growing condition for the expected 3-year plant establishment period; providing in-kind replacement of suitable plants; weeding; non-chemical rodent and other pest control; mowing; removing trash and debris; plant pruning and fertilizer application; plant basin mulching; and installing foliage protectors as needed or as determined necessary during the 3-year plant establishment period. Hand or truck watering will be used to establish plant materials. A temporary above- or below-grade irrigation system may be installed. Permanent erosion control, including soil stabilization measures such as hydro-seeding, coir netting and non-filament mesh, will be applied to all areas of ground disturbance to minimize erosion following each construction phase.

Construction Equipment
Typical heavy equipment and hand tools will be used during construction. Cranes will be used in the various operations during construction, such as setting up the construction site, pile driving, and assisting with the delivery of construction materials. Excavators will be used to excavate and construct new roadway or retaining walls, the bridge abutments, and the bridge footing. Drilling equipment will be used in the construction of the bridge foundations and retaining walls. Concrete pumps will be used to place concrete for the various concrete structures. Other equipment will include loaders, lifts, hoe-rams, jackhammers, backhoes, bulldozers, and compaction machines.

Construction Schedule
Construction will take three to four construction seasons (3 to 4 calendar years) to complete. All work within the bed and bank of Sanborn Creek will be conducted during the dry season between June 15th and October 15th.

Conservation Measures

Caltrans proposes to reduce adverse effects to the California red-legged frog by implementing the following measures:

1. Habitat Compensation. Compensation for temporary California red-legged habitat loss will be satisfied with successful onsite restoration to baseline or better ecological function. Compensation for permanent habitat loss (1.8 acres) will be satisfied through purchase of credits at a Service-approved conservation bank at 3:1 (5.4 acres of credit) or through other Service-approved off-site compensation options. Caltrans will complete Service-approved offsite compensation prior to the completion of the first year of construction.

2. Service-Approved Biological Monitor. The names and qualifications of the proposed biological monitor(s) will be submitted to the Service for approval at least 30 calendar days prior to the start of construction. The Service-Approved Biological Monitor will keep a copy of this Biological Opinion in their possession when onsite. The Service-Approved Biological Monitor will be onsite during all work that could reasonably result in take of the California red-legged frog. The Service-Approved Biological Monitor will have the authority to stop work that may result in the unauthorized take of the California red-legged frog through communication with the Resident Engineer. If the Service-Approved Biological Monitor exercises this authority, the Service will be notified by telephone and e-mail message within one (1) working day.

3. Worker Environmental Awareness Training. Construction personnel will attend a mandatory environmental education program delivered by the Service-Approved Biological Monitor prior to any ground disturbing activity, including vegetation clearing. The program will focus on the conservation measures and will include information as how to best avoid take of the California red-legged frog. At a minimum, the training will include a description of the listed frog; how it might be encountered within the project area; its status and protection; and the relevant *Conservation Measures* and *Terms and Conditions* of the Biological Opinion. A fact sheet conveying this information will be prepared and distributed to all construction and project personnel. Distributed materials will include cards with distinctive photographs of the California red-legged frog, compliance reminders, and relevant contact information. Documentation of the training, including sign-in sheets, will be kept on file and made available to the Service upon request.

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

5. Frog Discovery. If a California red-legged frog is discovered, the Resident Engineer and Service-Approved Biological Monitor will be immediately informed.

    a. If a California red-legged frog gains access to a construction zone, work will be halted immediately within 50 feet until the animal leaves the construction zone or is removed by the Service-Approved Biological Monitor.

    b. The Service will be notified within one (1) working day if a California red-legged frog is discovered within the construction site.

    c. The captured California red-legged frog will be released within appropriate habitat outside of the construction area within the Sanborn Creek or Saratoga Creek riparian corridor. The release habitat will be determined by the Service-Approved Biological Monitor.

    d. The Service-Approved Biological Monitor will take precautions to prevent introduction of amphibian diseases in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (Service 2005).

    e. Injured California red-legged frogs will be cared for by a Service-Approved Biological Monitor or a licensed veterinarian, if necessary. Any deceased California red-legged frogs will be preserved according to standard museum techniques and will be held in a secure location. The Service will be notified within one (1) working day of the discovery of a death or an injury to any listed species resulting from project-related activities or if a listed species is observed at a construction site. Notification will include the date, time, and location of the incident or the finding of a deceased or injured animal, clearly indicated on a United States Geological Survey (USGS) 7.5-minute quadrangle and other maps at a finer scale, as requested by the Service, and any other pertinent information.

6. Cover Boards. The Service-Approved Biological Monitor will place cover boards in strategic locations throughout the project footprint during the pre-construction surveys. During construction, these cover boards will be checked on a daily basis for the California red-legged frog when the Service-Approved Biological Monitor is onsite.

7. Seasonal Avoidance. Except for limited vegetation cutting (necessary to minimize effects to nesting birds), ground-disturbing construction activities within the bed and bank of Sanborn Creek will be limited to a June 15 to October 15 work window.

8. Night Work. Nighttime work will be avoided for activities that are practicable to complete during the day. For the nighttime work that needs to be conducted, all lighting will be directed downwards and towards the active construction work area.

9. Work Boundary. The work limits will be identified with high-visibility fencing, flagging, or other obvious means. Limits will also be defined near other environmentally sensitive locations, such as bird nests, as needed. The materials used to identify work boundaries will be removed at the end of construction.

10. Staging. Construction access, staging, storage, and parking areas will be located on paved or compacted surfaces or within those routes established for the project.

11. Vegetation Removal. Vegetation removal will be limited to the designated work areas including areas designated for staging, access, and workspace. Where possible, vegetation removal will be cut above soil level to promote revegetative growth of established plants following construction. Vegetation clearing will be conducted between October 1 and January 15 to avoid impacts to birds and active nests. All nest avoidance requirements of the Migratory Bird Treaty Act will be observed. In order to prevent the creation of animal cover, all cleared vegetation will be removed from the project area.

12. Avoidance of Entrapment. To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1-foot deep will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks at an angle no greater than 30 degrees. Before such holes or trenches are filled they must be thoroughly inspected for trapped animals. All replacement pipes, hoses, culverts, or similar structures less than 12 inches in diameter will be closed, capped, or covered upon entry to the project site. All similar structures greater than 12 inches must be inspected before they are subsequently moved, capped and/or buried.

13. Dewatering. Dewatering and discharging activities will be conducted according to standard Caltrans requirements.

    a. The dewatering plan will be provided to the Service for review, comment, and approval in advance of its establishment.

    b. A Service-Approved Biological Monitor will be present during dewatering activities.

    c. For dewatering systems that require pumping, all intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system.

    d. Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

14. Proper Use of Erosion Control Devices. To avoid California red-legged frog entanglement or entrapment, plastic monofilament netting (i.e., erosion control matting) or similar material will not be used within the action area. Acceptable substitutes will include coconut coir matting or tackified hydro-seeding compounds.

15. Inclement Weather Restriction. No work will occur during or within 24 hours following a rain event exceeding 1/4th-inch as measured by the National Oceanic and Atmospheric Administration National Weather Service at the San Jose, CA base station (available at: http://www.wrh.noaa.gov/mesowest/getobext.php?wfo=mtr&sid=KRHV&num=72&raw=0). Service/California Department of Fish and Wildlife approval to continue work during or within 24 hours of a rain event will be considered on a case-by-case basis. After any storm event, all sites currently under construction, or scheduled to begin construction within the next 72 hours will be inspected for erosion and sediment problems. Corrective actions will be taken as needed.

16. Implementation of Best Management Practices (BMPs). In accordance with Regional Water Quality Control Board requirements, a Stormwater Pollution Prevention Plan (SWPPP) will be developed and erosion control BMPs implemented to minimize wind- or water-related erosion. The Caltrans *BMP Guidance Handbook* provides guidance for the inclusion of provisions in all construction contracts to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include the following:

    a. Disallowing discharging of pollutants from vehicle and equipment cleaning into storm drains or watercourses.

    b. Keeping vehicle and equipment fueling and maintenance operations at least 50 feet away from watercourses, except at established commercial gas stations or an established vehicle maintenance facility.

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

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

    e. Using water trucks and dust palliatives to control dust in unvegetated areas and covering of temporary stockpiles when weather conditions require.

    f. Installing coir rolls or straw wattles along or at the base of slopes during construction to capture sediment.

    g. Protecting graded areas from erosion using a combination of silt fences, fiber rolls along toes of slopes or along edges of designated staging areas, and erosion control netting (jute or coir) as appropriate on sloped areas.

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

17. Construction Site Management Practices. The following site restrictions will be implemented to avoid or minimize potential effects on the California red-legged frog and their habitat:

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

    b. Locating construction access, staging, storage, and parking areas within the project right-of-way (ROW) outside any designated Environmentally Sensitive Areas or outside the ROW in areas environmentally cleared and permitted by the contractor. The following areas will be limited to the minimum necessary to construct the proposed project: access routes, staging and storage areas, and contractor parking. Routes and boundaries of roadwork will be clearly marked before initiating construction or grading.

c. Certifying, to the maximum extent practicable, borrow material is non-toxic and weed free.

d. Enclosing food and food-related trash items in sealed trash containers and removing them from the site at the end of each day.

e. Prohibiting pets from entering the project footprint area during construction.

f. Prohibiting firearms within the project site, except for those carried by authorized security personnel or local, state, or Federal law enforcement officials.

g. Maintaining equipment to prevent the leakage of vehicle fluids such as gasoline, oils, or solvents and developing a Spill Response Plan. Hazardous materials such as fuels, oils, solvents, etc. will be stored in sealable containers in a designated location that is at least 50 feet from aquatic habitats.

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

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

19. Reduce Spread of Invasive Species. To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is provided to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of them in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. Where seeding is not practical, the target areas within the action area will be covered to the extent practicable with heavy black plastic solarization material until the end of the project.

20. Service Access. If requested, before, during, or upon completion of groundbreaking and construction activities, Caltrans will allow access by Service personnel into the project footprint to inspect the project and its activities.

21. Reporting. Caltrans will submit post-construction compliance reports prepared by the Service-Approved Biological Monitor to the Service within 60 calendar days following completion of project activities or within 60 calendar days of any break in construction activity lasting more than 60 calendar days. This report will detail (1) dates that relevant project activities occurred; (2) pertinent information concerning the success of the project in implementing avoidance and minimization measures for listed species; (3) an explanation of

failure to meet such measures, if any; (4) known project effects on listed species, if any; (5) occurrences of incidental take of any listed species, if any; (6) documentation of employee environmental education; and (7) other pertinent information.

Action Area

The action area is defined in 50 CFR § 402.02, as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." For the proposed project, the action area encompasses a 2.46-acre construction footprint plus a 300 foot habitat buffer to account for noise, vibration, visual disturbance, and barrier effects, and 500 feet or more downstream of the construction footprint relative to water quality.

Analytical Framework for the Jeopardy Determinations

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

The jeopardy analysis in this biological opinion considers the effects of the proposed Federal action, and any cumulative effects, on the range wide survival and recovery of the listed species. It relies on four components: (1) the *Status of the Species,* which describes the range wide condition of the species, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline,* which analyzes the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action,* which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and (4) the *Cumulative Effects,* which evaluates the effects of future, non-Federal activities in the action area on the species.

Status of the Species

Listing Status: The California red-legged frog was listed as a threatened species on May 23, 1996 (Service 1996). Critical habitat was designated for this species on April 13, 2006 (Service 2006) and revisions to the critical habitat designation were published on March 17, 2010 (Service 2010). At this time, the Service recognized the taxonomic change from *Rana aurora draytonii* to *Rana draytonii* (Shaffer *et al.* 2010). A recovery plan was published for the California red-legged frog on September 12, 2002 (Service 2002).

Description: The California red legged frog is the largest native frog in the western United States (Wright and Wright 1949), ranging from 1.5 to 5.1 inches in length (Stebbins 2003). The abdomen and hind legs of adults are largely red, while the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish background color. Dorsal spots usually have light centers (Stebbins 2003), and dorsolateral folds are prominent on the back. Larvae (tadpoles) range from 0.6 to 3.1 inches in length, and the background color of the body is dark brown and yellow with darker spots (Storer 1925).

Distribution: The historic range of the California red-legged frog extended from the vicinity of Elk Creek in Mendocino County, California, along the coast inland to the vicinity of Redding in Shasta County, California, and southward to northwestern Baja California, Mexico (Fellers 2005; Jennings and Hayes 1985; Hayes and Krempels 1986). The species was historically documented in 46 counties but the taxa now remains in 238 streams or drainages within 23 counties, representing a loss of 70 percent of its former range (Service 2002). California red-legged frogs are still locally abundant within portions of the San Francisco Bay area and the Central California Coast. Isolated populations have been documented in the Sierra Nevada, northern Coast, and northern Transverse Ranges. The species is believed to be extirpated from the southern Transverse and Peninsular Ranges, but is still present in Baja California, Mexico (CDFW 2017).

Status and Natural History: California red-legged frogs predominately inhabit permanent water sources such as streams, lakes, marshes, natural and manmade ponds, and ephemeral drainages in valley bottoms and foothills up to 4,921 feet in elevation (Jennings and Hayes 1994, Bulger *et al.* 2003, Stebbins 2003). However, they also inhabit ephemeral creeks, drainages and ponds with minimal riparian and emergent vegetation. California red-legged frogs also can be found in disturbed areas such as channelized creeks and drainage ditches in urban and agricultural areas. For example, an adult California red-legged frog was observed in a shallow isolated pool on North Slough Creek in the American Canyon area of Napa County (C. Gaber, PG&E, pers. comm., 2008). This frog location was surrounded by vineyard development. Another adult California red-legged frog was observed under debris in an unpaved parking lot in a heavily industrial area of Burlingame (P. Kobernus, Coast Ridge Ecology, pers. comm., 2008). This frog was likely utilizing a nearby drainage ditch. Caltrans also has discovered California red-legged frog adults, tadpoles, and egg masses within a storm drainage system within a major cloverleaf intersection of Millbrae Avenue and SR 101 in a heavily developed area of San Mateo County (Caltrans 2007). California red-legged frog has the potential to persist in disturbed areas as long as those locations provide at least one or more of their life history requirements.

California red-legged frogs breed from November to April, although earlier breeding records have been reported in southern localities. Breeding generally occurs in still or slow moving water often associated with emergent vegetation, such as cattails, tules, or overhanging willows (Storer 1925, Hayes and Jennings 1988). Female frogs deposit egg masses on emergent vegetation so that the egg mass floats on or near the surface of the water (Hayes and Miyamoto 1984).

Habitat includes nearly any area within 1-2 miles of a breeding site that stays moist and cool through the summer including vegetated areas with coyote brush, California blackberry thickets, and root masses associated with willow and California bay trees (Fellers 2005). Sheltering habitat for California red-legged frogs potentially includes landscape features that provide cover, such as animal burrows, boulders or rocks, organic debris such as downed trees or logs, and industrial debris. Agricultural features such as drains, watering troughs, spring boxes, abandoned sheds, or hay stacks may also be used. Incised stream channels with portions narrower and depths greater than 18 inches also may provide important summer sheltering habitat. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and can be a factor limiting frog population numbers and survival.

California red-legged frogs do not have a distinct breeding migration (Fellers 2005). Adults are often associated with permanent bodies of water. Some individuals remain at breeding sites year-round, while others disperse to neighboring water features. Dispersal distances are typically less than 0.5-mile, with a few individuals moving up to 1-2 miles (Fellers 2005). Movements are typically along riparian corridors, but some individuals, especially on rainy nights, move directly from one site to

another through normally inhospitable habitats, such as heavily grazed pastures or oak-grassland savannas (Fellers 2005).

In a study of California red-legged frog terrestrial activity in a mesic area of the Santa Cruz Mountains, Bulger *et al.* (2003) categorized terrestrial use as migratory and non-migratory. The latter occurred from one to several days and was associated with precipitation events. Migratory movements were characterized as the movement between aquatic sites and were most often associated with breeding activities. Bulger *et al.* (2003) reported that non-migrating frogs typically stayed within 200 feet of aquatic habitat 90 percent of the time and were most often associated with dense vegetative cover, *i.e.*, California blackberry, poison oak and coyote brush. Dispersing frogs in northern Santa Cruz County traveled distances from 0.25 mile to more than 2 miles without apparent regard to topography, vegetation type, or riparian corridors (Bulger *et al.* 2003).

In a study of California red-legged frog terrestrial activity in a xeric environment in eastern Contra Costa County, Tatarian (2008) noted that 57 percent of frogs fitted with radio transmitters in the Round Valley study area stayed at their breeding pools, whereas 43 percent moved into adjacent upland habitat or to other aquatic sites. Her study reported a peak seasonal terrestrial movement occurring in the fall months associated with the first 0.2 inch of precipitation and tapering off into spring. Upland movement activities ranged from 3 to 233 feet, averaging 80 feet, and were associated with a variety of refugia including grass thatch, crevices, cow hoof prints, ground squirrel burrows at the base of trees or rocks, logs, and under man-made structures; others were associated with upland sites lacking refugia (Tatarian 2008). The majority of terrestrial movements lasted from 1 to 4 days; however, one adult female was reported to remain in upland habitat for 50 days (Tatarian 2008). Upland refugia closer to aquatic sites were used more often and were more commonly associated with areas exhibiting higher object cover, *e.g.*, woody debris, rocks, and vegetative cover. Subterranean cover was not significantly different between occupied upland habitat and non-occupied upland habitat.

California red-legged frogs are often prolific breeders, laying their eggs during or shortly after large rainfall events in late winter and early spring (Hayes and Miyamoto 1984). Egg masses containing 2,000-5,000 eggs are attached to vegetation below the surface and hatch after 6-14 days (Storer 1925, Jennings and Hayes 1994). In coastal lagoons, the most significant mortality factor in the pre-hatching stage is water salinity (Jennings *et al.* 1992). Eggs exposed to salinity levels greater than 4.5 parts per thousand resulted in 100 percent mortality (Jennings and Hayes 1990). Increased siltation during the breeding season can cause asphyxiation of eggs and small larvae. Larvae undergo metamorphosis 3.5-7 months following hatching and reach sexual maturity at 2-3 years of age (Storer 1925; Wright and Wright 1949; Jennings and Hayes 1985, 1990, 1994). Of the various life stages, larvae probably experience the highest mortality rates, with less than 1 percent of eggs laid reaching metamorphosis (Jennings *et al.* 1992). California red-legged frogs may live 8 to 10 years (Jennings *et al.* 1992). Populations can fluctuate from year to year; favorable conditions allow the species to have extremely high rates of reproduction and thus produce large numbers of dispersing young and a concomitant increase in the number of occupied sites. In contrast, the animal may temporarily disappear from an area when conditions are stressful (*e.g.*, during periods of drought, disease, etc.).

The diet of California red-legged frogs is highly variable and changes with the life history stage. The diet of the larvae is not well studied, but is likely similar to that of other ranid frogs, which feed on algae, diatoms, and detritus by grazing on the surface of rocks and vegetation (Fellers 2005; Kupferberg 1996a, 1996b, 1997). Hayes and Tennant (1985) analyzed the diets of California red-legged frogs from Cañada de la Gaviota in Santa Barbara County during the winter of 1981 and

found invertebrates (comprising 42 taxa) to be the most common prey item consumed; however, they speculated that this was opportunistic and varied based on prey availability. They ascertained that larger frogs consumed larger prey and were recorded to have preyed on Pacific chorus frogs, three-spined stickleback, and, to a limited extent, California mice, which were abundant at the study site (Hayes and Tennant 1985, Fellers 2005). Although larger vertebrate prey was consumed less frequently, it represented over half of the prey mass eaten by larger frogs suggesting that such prey may play an energetically important role in their diets (Hayes and Tennant 1985). Juvenile and subadult/adult frogs varied in their feeding activity periods; juveniles fed for longer periods throughout the day and night, while subadult/adults fed nocturnally (Hayes and Tennant 1985). Juveniles were significantly less successful at capturing prey and all life history stages exhibited poor prey discrimination, feeding on several inanimate objects that moved through their field of view (Hayes and Tennant 1985).

Recovery Plan: The recovery plan for the California red-legged frog identifies eight recovery units (Service 2002). The establishment of these recovery units is based on the determination that various regional areas of the species' range are essential to its survival and recovery. The status of the California red-legged frog was considered within the small scale recovery units as opposed to their overall range. These recovery units are delineated by major watershed boundaries as defined by USGS hydrologic units and the limits of its range. The goal of the recovery plan is to protect the long-term viability of all extant populations within each recovery unit. Within each recovery unit, core areas have been delineated and represent contiguous areas of moderate to high California red-legged frog densities that are relatively free of exotic species such as bullfrogs. The goal of designating core areas is to protect metapopulations. Thus when combined with suitable dispersal habitat, will allow for the long term viability within existing populations. The management strategy identified within the Recovery Plan will allow for the recolonization of habitats within and adjacent to core areas that are naturally subjected to periodic localized extinctions, thus assuring the long-term survival and recovery of California red-legged frogs

Threats: Habitat loss, non-native species introduction, and urban encroachment are the primary factors that have adversely affected the California red-legged frog throughout its range. Several researchers in central California have noted the decline and eventual local disappearance of California and northern red-legged frogs in systems supporting bullfrogs (Jennings and Hayes 1990, Twedt 1993), red swamp crayfish, signal crayfish, and several species of warm water fish including sunfish, goldfish, common carp, and mosquitofish (Moyle 1976, Barry 1992, Hunt 1993, Fisher and Schaffer 1996). This has been attributed to predation, competition, and reproduction interference. Twedt (1993) documented bullfrog predation of juvenile northern red-legged frogs, and suggested that bullfrogs could prey on subadult California red-legged frogs as well. Bullfrogs may also have a competitive advantage over California red-legged frogs. For instance, bullfrogs are larger and possess more generalized food habits (Bury and Whelan 1984). In addition, bullfrogs have an extended breeding season (Storer 1933) during which an individual female can produce as many as 20,000 eggs (Emlen 1977). Furthermore, bullfrog larvae are unpalatable to predatory fish (Kruse and Francis 1977). Bullfrogs also interfere with California red-legged frog reproduction by eating adult male California red-legged frogs. Both California and northern red-legged frogs have been observed in amplexus (mounted on) with both male and female bullfrogs (Jennings and Hayes 1990, Jennings 1993, Twedt 1993). Thus bullfrogs are able to prey upon and out-compete California red-legged frogs, especially in sub-optimal habitat.

The urbanization of land within and adjacent to California red-legged frog habitat has also affected the threatened amphibian. These declines are attributed to channelization of riparian areas, enclosure of the channels by urban development that blocks dispersal, and the introduction of predatory fishes

and bullfrogs. Diseases may also pose a significant threat, although the specific effects of disease on the California red-legged frog are not known. Pathogens are suspected of causing global amphibian declines (Davidson *et al.* 2003). Chytridiomycosis and ranaviruses are a potential threat because these diseases have been found to adversely affect other amphibians, including the listed species (Davidson *et al.* 2003; Lips *et al.* 2006). Mao *et al.* (1999 cited in Fellers 2005) reported northern red-legged frogs infected with an iridovirus, which was also presented in sympatric threespine sticklebacks in northwestern California. Non-native species, such as bullfrogs and non-native tiger salamanders that live within the range of the California red-legged frog have been identified as potential carriers of these diseases (Garner *et al.* 2006). Human activities can facilitate the spread of disease by encouraging the further introduction of non-native carriers and by acting as carriers themselves (*i.e.*, contaminated boots, waders or fishing equipment). Human activities can also introduce stress by other means, such as habitat fragmentation, that results in the listed species being more susceptible to the effects of disease.

Negative effects to wildlife populations from roads and pavement may extend some distance from the actual road. The phenomenon can result from any of the effects already described in this Biological Opinion, such as vehicle-related mortality, habitat degradation, and invasive exotic species. Forman and Deblinger (1998, 2000) described the area affected as the "road effect" zone. Along a four-lane road in Massachusetts, they determined that this zone extend for an average of approximately 980 feet to either side of the road for an average total zone width of approximately 1,970 feet. They describe the boundaries of this zone as asymmetric and in some areas diminished wildlife use attributed to road effects was detected greater than 0.6 mile from Massachusetts Route 2. The "road-zone" effect can also be subtle. Van der Zande *et al.* (1980) reported that lapwings and black-tailed godwits feeding at 1,575-6,560 feet from roads were disturbed by passing vehicles. The heart rate, metabolic rate and energy expenditure of female bighorn sheep increase near roads (MacArthur *et al.* 1979). Trombulak and Frissell (2000) described another type of "road-zone' effect due to contaminants. Heavy metal concentrations from vehicle exhaust were greatest within 66 feet of roads, but elevated levels of metals in both soil and plants were detected at 660 feet of roads. The "road-zone" apparently varies with habitat type and traffic volume. Based on responses by birds, Forman (2000) estimated the effect zone along primary roads of 1,000 feet in woodlands, 1,197 feet in grasslands, and 2,657 feet in natural lands near urban areas. Along secondary roads with lower traffic volumes, the effect zone was 656 feet. The "road-zone" effect with regard to California red-legged frogs has not been adequately investigated.

The necessity of moving between multiple habitats and breeding ponds means that many amphibian species, such as the California red-legged frog, are especially vulnerable to roads and well-used large paved areas in the landscape. Van Gelder (1973) and Cooke (1995) have examined the effect of roads on amphibians and found that because of their activity patterns, population structure, and preferred habitats, aquatic breeding amphibians are more vulnerable to traffic mortality than some other species. Large, high-volume highways pose a nearly impenetrable barrier to amphibians and result in mortality to individual animals as well as significantly fragmenting habitat. Hels and Buchwald (2001) found that mortality rates for anurans on high traffic roads are higher than on low traffic roads. Vos and Chardon (1998) found a significant negative effect of road density on the occupation probability of ponds by the moor frog (*Rana arvalis*) in the Netherlands. In addition, incidents of very large numbers of road-killed frogs are well documented (*e.g.*, Ashley and Robinson 1996), and studies have shown strong population level effects of traffic density (Carr and Fahrig 2001) and high traffic roads on these amphibians (Van Gelder 1973; Vos and Chardon 1998). Most studies regularly count road kills from slow moving vehicles (Hansen 1982; Rosen and Lowe 1994; Drews 1995; Mallick *et al.* 1998) or by foot (Munguira and Thomas 1992). These studies assume that every victim is observed, which may be true for large conspicuous mammals, but it certainly is not

true for small animals, such as the California red-legged frog. Amphibians appear especially vulnerable to traffic mortality because they readily attempt to cross roads, are slow-moving and small, and thus cannot easily be avoided by drivers (Carr and Fahrig 2001).

Environmental Baseline

The action area is located in a fairly rugged and heavily forested eastern slope of the Santa Cruz Mountains. SR 9 loosely parallels Saratoga Creek from the western edge of the City of Saratoga west and up to its headwaters before climbing to its ridgeline intersection with SR 35 (Skyline Boulevard).

The action area is primarily characterized by undeveloped forested landscape which includes private ownership as well as public lands for outdoor recreation and habitat conservation. Much of the action area, including the base of the bridge is located within the Saratoga Springs camping and event center. The existing historical bridge structure is a backdrop for weddings and other events. Sanborn Creek crosses under the bridge before joining Saratoga Creek within the grounds of the event center.

Almost all of Sanborn Creek and much of the upper reaches of Saratoga Creek are contained within the Santa Clara County's Sanborn County Park. The northern boundary of Sanborn Park meets the SR 9 ROW along the eastern edge of the project footprint.

The action area is located with the range of the California red-legged frog. A map depicting the species' range is included in the Service's online profile for the species at http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D02D. The proposed project is also within California red-legged frog Recovery Unit 5 (Central Coast) (Service 2002).

Protocol California red-legged frog surveys were not conducted by Caltrans and to our knowledge, previous protocol surveys for the listed frog have not been conducted in the general vicinity. The California Natural Diversity DataBase (CNDDB) includes a recorded observation of the species approximately 1.4 miles downstream of the project footprint within Saratoga Creek (CDFW 2018, occurrence 211). Caltrans concluded that the species was likely present in the action area due to the location within its range, the proximity of the previous observation within Saratoga Creek, and the presence of appropriate aquatic and upland habitat within the action area.

The Service used aerial photography and field observations from available access locations to independently identify available upland habitat for refugia and dispersal as well as the presence of suitable riparian and aquatic habitat throughout the action area. Sanborn and Saratoga Creeks include stream flow habitat types that are likely variable depending on the season and evolve over time. However, the action area includes a variety of hydrological sequences that include riffle, glides, slack water, undercut banks, and ponded features that provide complex habitat that can be utilized by the California red-legged frog for refuge, forage, and physiological regulation. It is unclear if potential breeding habitat, such as pools and backwater areas may be present in favorable years within the action area portion of these creeks. Dense vegetation makes it difficult to identify potential breeding ponds using aerial photography. The associated riparian corridor within the action area includes canopy cover and ground cover that is often associated with riparian habitat utilized by the California red-legged frog.

Adult California red-legged frogs are highly mobile and have been documented to move more than 2 miles over upland habitat. The frog habitat within the action area has direct connectivity with

suitable habitat adjacent to the project site and is well within the feasible movement distance to other resources vital to its life history.

The land adjacent to the proposed project is influenced by the use of the SR 9 transportation corridor. SR 9 is one of the few east-west connections over the Santa Cruz Mountains between the South San Francisco Bay Area and the Pacific Coast. The road ROW includes several associated features such as vehicle pullouts, overhead utilities, road signs, and road shoulders that are subject to vegetation maintenance. The winding road, steep topography, and dense roadside vegetation hinder a driver's ability to detect wildlife on or entering the roadway. The California red-legged frog is small, most likely to be crossing roads at night, and poses little risk to driver safety and is therefore less likely to be detected or avoided by drivers. These features along with traffic volume, traffic noise, exhaust, fluid leaks, invasive vegetation, and the threat of animal-vehicle collision have an adverse effect on the function of the neighboring habitat for both common and listed wildlife. This parallel band of disturbance is referred to as a "road effects zone." The outward extent of this zone can vary with factors such as topography and the sensitivity of a given species to those effects. A spectrum of typical road effects are likely to negatively influence the suitability of the California red-legged frog habitat in and adjacent to the project footprint as well as the behavior of the species within their respective road effects zone.

The road effects zone applies to the California red-legged frog and in this case, road mortality is likely for frogs that attempt to cross SR 9 or Sanborn Road. These baseline conditions likely create a risk for California red-legged frog that diminishes with distance from these roadways.

The Service believes that the California red-legged frog is reasonably certain to occur within the action area due to: (1) the project footprint being located within the species' range and current distribution; (2) the presence of suitable upland and aquatic habitat within the project footprint; (3) the frog's ability to move long distances, combined with the habitat connectivity with previously observed occupancy within Saratoga Creek; and (4) the biology and ecology of the animal.

Effects of the Action

The direct effects of the proposed project are those effects occurring within the action area during construction of the proposed project. For this project much of the direct effects are associated with the loss of habitat for the California red-legged frog and construction-related disturbance. The effects of habitat loss were analyzed based on the term of the loss, restoration potential, and the associated changes to functional value.

The proposed project footprint is approximately 2.46 acres. This footprint includes differing levels of ground disturbance. Some of the identified staging and access areas are composed of compacted material which will not require modification or post-project restoration. Areas along the SR 9 shoulder that will be disturbed for utility relocation will require minor ground disturbance and will be replaced in-kind following construction. The combined compacted staging and temporary utility relocation footprint accounts for approximately 0.64 acre of the proposed construction footprint. The remaining 1.82 acres of proposed construction footprint will remain active over three to four years. A measureable effort will be made to restore the majority of this area to baseline ecological functions following completion of the project but will constitute a prolonged loss/degradation of habitat for the California red-legged frog due to prolonged use and the time needed for successful restoration to be achieved.

Indirect effects are the effects of the proposed project generally occurring later in time after construction has been completed (*e.g.*, degradation of habitat due to the spread of invasive plant species; barriers to dispersal due to the installation of retaining walls). An interrelated activity is an activity that is part of the proposed project and depends on the proposed project for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation.

Caltrans proposes to minimize adverse project-related effects by implementing the *Conservation Measures* included in the project description section of this Biological Opinion. Effective implementation of *Conservation Measures* will likely minimize adverse effects to the California red-legged frog during construction but incidental take is still likely to occur. Therefore, the proposed project has the potential to result in a variety of effects to the listed frog.

Construction activities could result in the killing, injuring, and disrupting juvenile and adult frogs in the action area. The project footprint includes hardscape, ruderal, ornamental, forest, riparian, wetland, and riverine land cover in which the frog could be encountered during construction.

Clearing of vegetation and grading for access will likely result in a variety of adverse effects to the California red-legged frog. Much of these activities will take place on steep topography with dense mature vegetation. These activities will daylight previously shaded areas, likely changing the micro climate below by increasing exposure and decreasing moisture retention. This could affect the movement and available cover sites for the frog. Cutting in access routes along the steep slopes will create a wall on the upslope side of the temporary road that will also affect frog movement. Vegetation removal and grading will also result in the loss of foraging habitat and cover from predators and the elements. The ground disturbance may result in exposure, stranding, crushing, maiming, or otherwise disturbing the California red-legged frog. The removal of vegetation and grading will result in a less stable exposed soil surface that will likely be prone to erosion and resulting sediment transport over the three or more years of use prior to restoration.

The noise and vibration generated by the use of heavy equipment will be disruptive and may result in California red-legged frogs avoiding the action area, therefore modifying their behavior and creating a barrier to resource areas. Noise and vibration may also result in California red-legged frogs taking cover in conspicuous areas rather than fleeing potential harm. This will make them more difficult to find, avoid, and rescue from harm's way.

Educating project personnel will encourage compliance with the conservation measures and increase the possibility that California red-legged frogs in the work area will be identified and addressed appropriately for avoidance. Worker education is limited by the effectiveness of the presentation and the willingness of the construction personnel to participate in compliance.

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

Despite being "cleared" prior to construction, California red-legged frogs can continue to move into the work site undetected. The project is within a creek and riparian corridor in which frogs would routinely move through as well as back and forth from the adjacent upland. Frogs may be actively moving around, through, or within the work area during the evening as well as when work is taking place. This places greater emphasis on thorough biological clearance of work areas and under staged equipment, under the plastic sheeting and gravel bags used in the coffer dam, and materials prior to the start of each day's activities.

Placement of cover boards may provide a relatively safer refugia option for California red-legged frogs that otherwise would have taken cover under equipment or project-related materials. The boards may increase the potential for the Service-Approved Biological Monitor to discover those frogs and other wildlife that are within active work areas, thereby decreasing the chance of injury.

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

If unrestricted, biologists and construction workers traveling to the action area from other project sites may transmit diseases by introducing contaminated equipment. The chance of a disease being introduced into a new area is greater today than in the past due to the increasing occurrences of disease throughout amphibian populations in California and the United States. It is possible that chytridiomycosis, caused by chytrid fungus, may exacerbate the effects of other diseases on amphibians or increase the sensitivity of the amphibian to environmental changes (*e.g.*, water pH) that reduce normal immune response capabilities (Bosch *et al.* 2001, Weldon *et al.* 2004).

Discovery, capture, and relocation of individual California red-legged frogs may avoid injury or mortality due to construction activities; however, capturing and handling animals may result in stress and/or inadvertent injury during handling, containment, and transport. The release locations selected by the Service-approved Biological Monitor will be important to the survival of captured frogs. The appropriateness of the release site will be a major factor, as will the distance from the capture location. The reaction of the captured frog may depend on whether it was captured within its typical home range or if it was found during dispersal. These factors will influence the frog's ability to survive in the release location and its likelihood to remain at the release site (Rathbun and Schneider 2001, Germano and Bishop 2009). Current and future land use activities adjacent to the release site should be compatible with amphibian survival. Many amphibian species demonstrate high site-fidelity; therefore it is likely that translocated individuals will attempt to return to their capture location if displaced.

California red-legged frogs and their prey could also be affected by contamination due to chemical or sediment discharge. Exposure pathways could include inhalation, dermal contact, direct ingestion, or secondary ingestion of contaminated soil, plants or prey species. Exposure to contaminants could cause short- or long-term morbidity, possibly resulting in reduced productivity or mortality. However, Caltrans proposes to reduce these risks by limiting the equipment used in the stream bed to hand tools, implementing BMPs and the SWPPP that consist of refueling, oiling, or cleaning of vehicles and equipment a minimum of 50 feet from riparian and aquatic areas; installing coir rolls, straw wattles and/or silt fencing to capture sediment and prevent runoff or other harmful chemicals from entering the aquatic habitat; and locating staging, storage and parking areas away from aquatic habitat.

Caltrans' commitment to use erosion control devices other than mono-filament should be effective in avoiding the associated risk of entrapment that can result in death by predation, starvation, or desiccation (Stuart *et al.* 2001).

The completed project is unlikely to increase the local risk of California red-legged frog mortality due to vehicle collision. The bridge replacement is not likely to result in significant increases in traffic volume or speed. The completed project will not provide the California red-legged frog with greater access to the roadway or result in the addition of structures such as barriers that may result in greater risk of being stranded in the roadway, increasing their risk of being killed. Likewise, the road effects zone described in the baseline section is unlikely to expand.

Proposed post-project removal and restoration of the access roads, stream bed and bank, and other work areas has the potential to replace baseline ecological functions over time. Installation of riparian vegetation, various sized boulders, and downed logs may begin providing some functional habitat component for the frog within a year of project completion but baseline habitat function is unlikely to be achieved until 5 to 20 years following construction.

The purchase of 5.4 acres of Service-approved conservation bank credits for the California red-legged frog or completion of other Service-approved off-site compensation options will contribute to the overall conservation of the species by protecting, managing, or enhancing their habitat.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the SR 9 Saratoga Creek Bridge Replacement Project are not considered in this section because they require separate consultation pursuant to section 7 of the Act. During this consultation, the Service did not identify any future non-Federal actions that are reasonably certain to occur in the action area of the proposed project.

Conclusion

After reviewing the current status of the California red-legged frog, the environmental baseline for the action area, the effects of the proposed SR 9 Saratoga Creek Bridge Replacement Project, and the cumulative effects, it is the Service's biological opinion that SR 9 Saratoga Creek Bridge Replacement Project, as proposed, is not likely to jeopardize the continued existence of the species. The Service reached this conclusion because the project-related effects to the species, when added to the environmental baseline and analyzed in consideration of all potential cumulative effects, will not rise to the level of precluding recovery or reducing the likelihood of survival of the species based on the following: (1) successful implementation of the described *Conservation Measures* is likely to reduce the potential for proposed project activities to result in the disruption of normal California red-legged frog behavior or risk of injury; (2) habitat disturbed for access and work space will be restored to baseline levels; and (3) the ground disturbing activities and new infrastructure will be located within and adjacent to the existing roadway and footprint of the existing bridge;

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any

such conduct. Harass is defined by Service regulations at 50 CFR 17.3 as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the same regulations as an act which actually kills or injures wildlife. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this *Incidental Take Statement.*

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

Amount or Extent of Take

The Service anticipates that incidental take of the California red-legged frog will be difficult to detect due to their small size, wariness, and cryptic nature. The project footprint includes vegetative cover, rocks, and debris which provide cover for the California red-legged frog. Finding an injured or dead California red-legged frog is unlikely due to their relatively small body size, rapid carcass deterioration, difficulties adequately searching the steep topography of the construction footprint, and likelihood that the remains will be removed by a scavenger or indistinguishable amongst the disturbed soil and debris. Losses of the California red-legged frog may also be difficult to quantify due to a lack of baseline survey data and seasonal/annual fluctuations in their numbers due to environmental or human-caused disturbances. There is a risk of harm, harassment, injury and mortality as a result of the proposed construction activities, the permanent loss/degradation of suitable habitat, and capture and relocation efforts; therefore, the Service is authorizing take incidental to the proposed action as: (1) the harassment of all California red-legged frogs within the action area; (2) the capture of all California red-legged frogs within the construction footprint; and (3) the injury or mortality of one adult or juvenile California red-legged frog.

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

Effect of the Take

In the accompanying biological opinion, the Service determined that this level of anticipated take for the California red-legged frog are not likely to result in jeopardy to the species.

Reasonable and Prudent Measure

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

1. Minimize the adverse effects to the California red-legged frog and it's habitat in the action area by implementing their proposed project, including the conservation measures as described, with the following terms and conditions.

Terms and Conditions

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

1. The following *Terms and Conditions* implement *Reasonable and Prudent Measure* one (1):

   a. Caltrans shall include a copy of the all relevant permits within the construction bid package of the proposed project. The Resident Engineer or their designee shall be responsible for implementing the *Conservation Measures* and *Terms and Conditions* of the Biological Opinion.

   b. Approval request for Service-Approved Biological Monitors shall include, at a minimum: (1) relevant education; (2) relevant training concerning California red-legged frog identification, survey techniques, handling individuals of different age classes, and handling of different life stages by a permitted biologist or recognized species expert authorized for such activities by the Service; (3) a summary of field experience conducting requested activities (to include project/research information); (4) a summary of Biological Opinions under which they were authorized to work with the California red-legged frog and at what level (such as construction monitoring versus handling), this will also include the names and qualifications of persons under which the work was supervised as well as the amount of work experience on the actual project; (5) a list of Federal Recovery Permits [10(a)1(A)] held or under which they are authorized to work with the species (to include permit number, authorized activities, and name of permit holder); and (6) any relevant professional references with contact information. No project construction will begin until Caltrans has received written Service approval for biologists to conduct specified activities.

   c. The Service-Approved Biological Monitor(s) shall permanently remove, from the project site, any aquatic exotic wildlife species, such as non-native fish, bullfrogs, and crayfish, to the extent possible.

   d. Retain cover objects such as logs, stumps, or other coarse woody debris during vegetation cutting and establishment of work areas and access for use in restoration.

   e. Each California red-legged frog encounter shall be treated on a case-by-case basis in coordination with the Service but general guidance is as follows: (1) leave the non-injured animal if it is not in danger or (2) move the animal to a nearby location if it is in danger.

These two options are further described as follows:

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

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

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

2) The animal should be captured and moved when it is the only option to prevent its death or injury.

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

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

   Only Service-approved biologists for the project can capture California red-legged frogs. Nets or bare hands may be used to capture California red-legged frogs. Soaps, oils, creams, lotions, repellents, or solvents of any sort cannot be used on hands within 2 hours before and during periods when they are capturing and relocating California red-legged frogs. To avoid transferring disease or pathogens

between sites during the course of surveys or handling of amphibians, Service-approved biologists must use the following guidance for disinfecting equipment and clothing. These recommendations are adapted from the *Declining Amphibian Population Task Force's Code* (http://www.open.ac.uk/daptf/).

i. All dirt and debris, including mud, snails, plant material (including fruits and seeds), and algae, must be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water and/or an amphibian. Cleaned items should be rinsed with fresh water before leaving each site.

ii. Boots, nets, traps, etc., must then be scrubbed with either a 70 percent ethanol solution, a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water), QUAT 128 (quaternary ammonium, use 1:60 dilution), or a 6 percent sodium hypochlorite 3 solution and rinsed clean with water between sites. Avoid cleaning equipment in the immediate vicinity of a pond or wetland. All traces of the disinfectant must be removed before entering the next aquatic habitat.

iii. Used cleaning materials (liquids, etc.) must be disposed of safely, and if necessary, taken back to the lab for proper disposal.

iv. Service-Approved Biological Monitors must limit the duration of handling and captivity. While in captivity, California red-legged frogs shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. Containers used for holding or transporting should not contain any standing water.

f. Caltrans shall provide a restoration and revegetation plan for the project to be reviewed and approved by the Service no later than sixty (60) calendar days prior to the initial groundbreaking at the project site. The plan will include, but will not be limited to: schedule, methodology, a list of the seed mixes and container plants, plant material source, irrigation, maintenance schedule, monitoring program, success criteria, control of invasive, noxious weeds, reestablishment of overhanging vegetation, and remediation and adaptive management. The planting assemblage will include native trees, shrubs, and vines appropriate for the riparian corridor. A revegetation status and success report will be submitted on or before December 31 of each year monitoring is conducted.

The revegetation plan will include a photo monitoring plan. The plan will include, but is not limited, to the following:

1) An adequate number of photo monitoring stations will be established to provide representative views of project restoration and construction activities. Each station will provide a representative panoramic view of the restoration footprint. Caltrans will ensure that photo monitoring stations numbers and locations are sufficient to document temporary effects restoration success.

2) Establishment and operation of photo monitoring at all stations will occur prior to vegetation clearing. Baseline photographs will be taken during the spring growing season prior to construction. Following the completion of ground

disturbance, photo documentation will be conducted quarterly to document restoration relative to four seasons. Photo documentation will conclude when the Service has agreed that success criteria have been met.

3) Photo monitoring station locations will be provided to the Service in an acceptable geographic format with the coordinate system identified.

4) If the Service or the biological monitor(s) determines that additional monitoring stations are necessary, the locations will be added to the inventory of photo monitoring stations prior to the date of the next photo documentation.

5) During each photo monitoring cycle all stations will be visited within a two (2) day period.

6) At the conclusion of restoration, the acreage of restored areas will be tabulated and provided to the Service. The extent of restoration will be delineated with a handheld Global Positioning System device and a trackfile provided to the Service Representative.

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

1. Notification of injured or dead listed species will be made to the Coast-Bay Division Chief of the Endangered Species Program at the Sacramento Fish and Wildlife Office (SFWO) at (916) 414-6623. When an injured or dead individual of the listed species is found, Caltrans shall follow the steps outlined in the following *Disposition of Individuals Taken* section.

2. Sightings of any listed or sensitive animal species should be reported to the CNDDB (http://www.dfg.ca.gov/biogeodata/cnddb/).

3. Construction compliance reports will be addressed to the Coast-Bay Division Chief of the Endangered Species Program at the SFWO.

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

Disposition of Individuals Taken
Injured listed species must be cared for by a licensed veterinarian or other qualified person(s), such as the Service-approved biologist. Dead individuals must be sealed in a resealable plastic bag containing a paper with the date and time when the animal was found, the location where it was

found, and the name of the person who found it, and the bag containing the specimen frozen in a freezer located in a secure site, until instructions are received from the Service regarding the disposition of the dead specimen. The Service contact person is the Coast-Bay Division Chief of the Endangered Species Program at the SFWO at (916) 414-6623.

CONSERVATION RECOMMENDATIONS

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

1. Caltrans District 4 should work with the Service to develop a conservation strategy that would identify the current safe passage potential along Bay Area highways and the areas where safe passage for wildlife could be enhanced or established.

2. Caltrans should assist the Service in implementing recovery actions identified in the *Recovery Plan for the California Red-legged Frog* (Service 2002).

3. Caltrans should consider participating in the planning for a regional habitat conservation plan for the California red-legged frog, other listed species, and at-risk species.

4. Caltrans should consider establishing functioning preservation and creation conservation banking systems to further the conservation of the California red-legged frog. Such banking systems also could be utilized for other required mitigation (i.e., seasonal wetlands, riparian habitats, etc.) where appropriate. Efforts should be made to preserve habitat along roadways in association with wildlife crossings.

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

REINITIATION--CLOSING STATEMENT

This concludes formal consultation on the SR 9 Saratoga Creek Bridge Replacement Project. As provided in 50 CFR §402.16, reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action.

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

Sincerely,

Jennifer M. Norris, Ph.D
Field Supervisor

cc:
Robert Stanley, California Department of Fish and Wildlife, Napa, California
Gregory Pera and Mita Nagarkar, Caltrans District 4, Oakland, California

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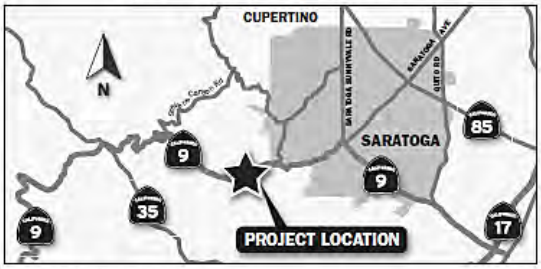
Appendix J Notification Advertisement in the Mercury News

Legal Advertising and Public Notices

Legal Notice | Legal Notice | Legal Notice | Legal Notice | Legal Notice

Public Notice

Draft Environmental Impact Report/ Environmental Assessment and Draft Section 4(f) Evaluation



WHAT'S BEING PLANNED

CALTRANS (California Department of Transportation) is proposing to address the seismic and structural concerns for the Saratoga Creek Bridge on State Route 9 (SR-9) in Santa Clara County near the intersection of SR-9 and Sanborn Road, either by replacing or retrofitting the existing bridge. One or more of the alternatives being evaluated will have an effect on historic properties eligible for the National Register of Historic Places. CALTRANS has evaluated whether adequate mitigation measures can be incorporated into the project plans.

WHY THIS AD

CALTRANS has studied the effects this project may have on the environment. This notice is to tell you of the preparation of the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) and of its availability for you to read. A hearing will be held to give you an opportunity to talk about certain design features of the project with CALTRANS' staff before the final design is selected.

WHAT'S AVAILABLE

The Draft EIR/EA is available at the project website, **www.dot.ca.gov/d4/9saratogacreekbridge/**, at the CALTRANS District 4 Environmental Documents website, **http://www.dot.ca.gov/d4/envdocs.htm,** through attendance of the public hearing, or at the following locations:

DISTRICT 4 OFFICE	SARATOGA CITY HALL	SARATOGA LIBRARY
111 Grand Ave	13777 Fruitvale Ave	13650 Saratoga Ave
Oakland, CA 94610	Saratoga, CA 95070	Saratoga, CA 95070

WHERE YOU COME IN

Have the potential impacts been addressed? Do you have information that should be included? Your comments will be part of the public record. If you wish to make a comment on the Draft EIR/EA, **you may submit your written comments until March 29, 2018** to **CALTRANS, Attn: Noray-Ann Spradling, P.O. Box 23660, Oakland, CA 94623-0660** or email them to **SaratogaCreekBridge@dot.ca.gov.** ***A public hearing will be held on Wednesday, February 28, 2018 from 6:00 pm until 8:00 pm at:***

SARATOGA PROSPECT CENTER
19848 Prospect Road Saratoga, CA

TDD users may contact the **California Relay Service TDD line** at **1-800-735-2929** or Voice Line at **1-800-735-2922.**

For more information about this project or any transportation matter, call **CALTRANS** at **(510) 286-4444.**

Caltrans

Legal Notice

FILED
February 5, 2018
SANTA CLARA COUNTY
Regina Alcomendras
County Clerk Recorder
SANTA CLARA COUNTY
By Regina Alcomendras, Deputy
File No. F18E3538
FICTITIOUS BUSINESS NAME STATEMENT
Pursuant To Business and Professions Code Sections 17900-17930
The name of the business: Palo Alto Oral Health
located at 2875 Middlefield Rd. #1, Palo Alto, Santa Clara County, CA 94306 is hereby registered by the following owner(s):
James D Stephens
205 Live Oak Lane , Los Altos, CA 94306
Susan L Paak
205 Live Oak Lane, Los Altos, CA This business is conducted by: a married couple
Business commenced on April 1, 1986
Expires 02/05/2023
James D Stephens
W60 195273
59
February 7, 14, 21, 28 2018

NOTICE OF APPLICATION FOR MERGER OF BANKS
HERITAGE BANK OF COMMERCE
150 ALMADEN BOULEVARD
SAN JOSE, CA 95113
intends to apply to the Federal Reserve Board for permission to merge with Tri-Valley Bank, located at 3160 Crow Canyon Road, Suite 160, San Ramon, California 94583. As a result of this merger, all offices of Tri-Valley Bank will become branches of Heritage Bank of Commerce. The Federal Reserve considers a number of factors in deciding whether to approve the application, including the record of performance of applicant banks in helping to meet local credit needs.
You are invited to submit comments in writing on this application to the Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco, California 94120-7702. The comment period will not end before March 2, 2018 and may be somewhat longer. The Federal Reserve Board's Policy Statement regarding notice of applications for processing applications may be found at 12 C.F.R. 262.25. To obtain a copy of the Federal Reserve Board's procedures, or if you need more information about how to submit your comments on the application, contact Gerald C. Tick, Director, Applications & Fin Tech at (415) 974-3415. The Federal Reserve will consider your comments and any request for a public meeting or formal hearing on the application if they are received in writing by the Federal Reserve Bank on or before the last day of the comment period.
1/31, 2/14, 3/2/18
CNS-3092489
MERCURY NEWS
SJMN 60957533
1/31 L2/14 L3/2, 2018

Appendix K Comment Letters and Responses

Comment 1 – Bill Giannini

Original Comment

[Comment 1-1 Need specific information on creek diversion and any effect it will have on Saratoga Springs water supply.**]**
Other concerns will be emailed.

Caltrans Response

Comment 1-1: Caltrans does not anticipate project related impacts to the water supply of Saratoga Springs Picnic and Campgrounds, Inc. The construction work for the bridge will occur above the proposed temporary creek crossing and/or creek diversion system that is described in Section 1.5.1 Common Design Features of All Build Alternatives. The purpose of the creek diversion system is to protect the water quality of Sanborn Creek by preventing construction activities from occurring on the creek bed and to prevent debris from entering the creek. The intake for Saratoga Spring's Picnic and Campgrounds, Inc. water supply is about 150 ft downstream from the location of the temporary creek crossing and/or creek diversion. Measures to ensure the project does not impact the water quality of Sanborn Creek are included in Sections 2.2.1 Water Quality and Storm Water Runoff, 2.3.1 Natural Communities, and 2.3.2 Wetlands and Other Waters. These include measures such as water quality monitoring during construction in and around Sanborn Creek, stormwater monitoring during rain events, BMP measures to prevent stormwater runoff from the project site from entering Sanborn Creek, and replacement planting to stabilize slopes once construction is completed.

Comment 2 – SCC Parks Department

Original Comment

[Comment 2-1 Could temporary construction access roads and bridges be retained for future use as a multi-use trail?**]**

[Comment 2-2 The Countywide Trails Master Plan (1995) should be referenced in the DEIR along with the Congress Springs Connector Trail, which uses SR-9 ROW as a bicycle route.**]**

[Comment 2-3 SR-9 should be striped and signed as a bicycle route.**]**
[Comment 2-4 Will water quality monitoring occur after a rain event during the non-construction periods?**]**

Caltrans Response

Comment 2-1: Caltrans does not currently plan to retain any of the temporary construction features after project construction is completed. The current plan is only to obtain a temporary use agreement with the private land owners. This would not allow Caltrans to leave any temporary features in place after construction.

Comment 2-2: The Santa Clara County Countywide Trails Master Plan Update (1995) has been included in the list of adopted plans that the project is consistent with on pages 3-34 and 3-35. An analysis of potential impacts to bicyclists currently using the section of SR-9 that is proposed for the Congress Springs Connector Trail and the Juan Bautista de Anza National Historic Trail bicycle route has been included on page 3-35 under a, f) No Impact.

Comment 2-3: This project's purpose and need is to address the identified seismic and safety concerns of the Saratoga Creek Bridge at post mile 4.9. Restriping of SR-9 would be outside of that purpose and need.

Comment 2-4: Storm Water Quality Monitoring is performed throughout construction, including active construction, non-active construction, and construction suspension periods between construction seasons. Storm Water Quality Monitoring is concluded when construction is completed.

Comment 3 – Matteoni O'Laughlin & Hechtman Lawyers

Original Comment

[Comment 3-1 Need to show beneath the overlay the specific improvements impacted.**]**
[Comment 3-2 How do temp const roads impact existing drives serving S/S.**]**
[Comment 3-3 How many trees removed in 70+K SF TCE.**]**
[Comment 3-4 After appearance of arches of bridge from S/S.**]**

Caltrans Response

Comment 3-1: Please see Figure 1-11, Alternative 1.1 Proposed Layout: Maintain Existing Roadway with "Hybrid" Bridge ("Hybrid" Alternative), in Section 2.5.2.

Comment 3-2: There are no impacts anticipated to the existing driveway from either of the proposed Temporary Construction Access Roads. The existing access road would be restored to its current condition if any unanticipated impacts do occur.

Comment 3-3: The FED analyzes tree removal on a project-wide level. The worst-case scenario for tree removal (assuming all trees within the project footprint are removed) is presented on page 2-86 of the FED. However, the exact tree removal amount necessary for this project will not be known until the next phase of project design. Prior to construction, a tree specialist, in conjunction with the project engineer, will determine exactly which trees need to be removed for construction access and safety, with the goal of limiting tree removal to the maximum extent practicable.

Comment 3-4: The façade of the existing arch bridge will be preserved and serve as a façade to the new bridge, concealing all but the new bridge deck. The new bridge is anticipated to be a steel girder bridge. Minor cosmetic repairs and scour protective measures will be made to the existing bridge to address previously documented deficiencies. A context sensitive architectural treatment will also be developed by the Caltrans Landscape Architect. See AMM Visual-1 in Appendix C: Avoidance, Minimization, and/or Mitigation Summary.

Comment 4 – Ken Lee

Original Comment

I would like to provide some comments after reading the environment report for Saratoga Creek bridge project.

[Comment 4-1 Among the four proposed alternatives, I like the first (replacing the bridge without realignment) and fourth (no build) alternatives the best. Between the first and fourth alternatives, I prefer the fourth alternative over the first.**]**

The no-build option is the only alternative that could save this beautiful bridge. Although the no-build option has its serious drawback such as the earthquake risk and long detour, I think there are some option that could mitigate this. **[Comment 4-2** For example, is it possible to build a bridge on top of the existing build? I mean to build a new bridge without anchoring onto the old one.**] [Comment 4-3** In addition, in the event that a bridge is damaged after an earthquake, is it possible to prebuild a bridge offsite now and have it ready to assemble onsite quickly?**] [Comment 4-4** Another good thing about the no-build option is that caltran could reevaluate the options to retrofitting the old bridge without destroying it from time to time (like once 5-10 years) as new technology become available.**]**

Among the three options that would build a new bridge, I choose the first alternative over the second and third alternative. The reason is simply. The first alternative costs less money and less time to build. I don't see real advantage of realigning the bridge either the north or south end other than the traffic flow could be smoother. **[Comment 4-5** However the downside is that could lead to higher speed for traffic on highway 9. Right now many car travels significantly faster speed (like 50-60mph) than the post speed limit 30mph.**]**

Ken

Caltrans Response

Comment 4-1: The commenter’s preference for Alternatives 1: Retrofit the Existing Bridge and Alternative 4: No Build, while favoring Alternative 4, has been acknowledged.

Comment 4-2: The project development team did consider an option to construct a new bridge on top of the original bridge. However, this proposal would not address the current seismic and scour vulnerabilities of the existing structure. In addition, this alternative would raise the bridge deck elevation by 8 feet, or more, thereby impacting the adjacent roads and driveways that would also need to be raised in order to match the new elevation of SR-9, thus increasing the overall environmental impacts of the project.

Comment 4-3: Caltrans has a policy of addressing safety concerns as soon as they are known. Allowing the bridge to fail during a seismic event would put the public at risk of injury and potential loss of life. In addition, pre-fabricated or pre-built permanent bridges specific to a site are built on-site. Building a prefabricated structure off site would generate challenges due to storage space, maintenance cost, and transportation feasibility.

Comment 4-4: California, and the Bay Area particularly, is a seismically active region. Caltrans has extensively researched programs and developed design procedures to further the state of practice for earthquake bridge engineering and seismic retrofitting in an effort to ensure public safety during seismic events. The recommendations of our Structure Maintenance and Investigations teams are taken seriously and the decision by Caltrans to develop a project to address seismic and/or structural deficiencies is not undertaken lightly. This project is only one of many in the state that a have been identified to address bridge seismic issues. Each project must go through its own development process and obtain funding as necessary to complete that process.

Comment 4-5: No significant change in speed is anticipated due to the approach re-alignment.

Comment 5 – Jim Stallman

Original Comment

[Comment 5-1 Please include features in the design of the bridge conducive to what swallows need to anchor their mud nests.**] [Comment 5-2** Include these even if no swallows are presently found nesting on the existing bridge.**]** Thank you.

Caltrans Response

Comment 5-1: It is structurally possible to include features in the new bridge design that would provide habitat for nesting swallows.

Comment 5-2: Bird and bat species are known to nest on or within bridge structures in California. They are particularly attracted to bridges with features that support nesting (e.g. weep holes or expansion joints) and those made entirely of concrete, which absorb warmth from the sun during the day and release it at night.

The Saratoga Creek Bridge is an earth-filled, concrete arch bridge with rubble masonry spandrel walls. The rounded arches, material properties, and bridge features do not appear to attract nesting birds. No evidence of birds nesting on or within the Saratoga Creek Bridge was observed during field surveys in 2016, 2017, or 2018. In addition, the surrounding habitat, which is heavily shaded with an enclosed tree canopy, may not make this site ideal for some bird species know to nest on bridges.

The commenter's request for swallow nesting features is acknowledged. If swallows (or other bird and bat species) are found to be nesting or roosting on the bridge structure, appropriate measures will be undertaken to ensure that any roosting or nesting structures that are lost will be replaced. However, if swallows are not found to utilize the bridge for nesting, no features will be added specifically to attract them to the area.

Comment 6 – Pamela Zimmerman

Original Comment

My main concern is Access in and out of our Driveway. **[Comment 6-1** Where will the traffic signals be positioned?**]** **[Comment 6-2** Will access to our driveway be blocked by backed up traffic?**]** **[Comment 6-3** Will there be painted signs on the street around our driveway saying "Keep Clear" as you see at intersections?**]** **[Comment 6-4** How will we know in which direction traffic will be moving when we exit our driveway onto Highway 9?**]**

A project starting in Spring 2021 lasting 3 to 4 years will put my husband and me in our 80's. We may need Emergency Medical Services. **[Comment 6-5** Will these services be able to get to us? Will they be able to get in and out of our driveway quickly?**]** Access to our driveway is of utmost importance!

Caltrans Response

Comment 6-1: The location of traffic signals will be determined and finalized during the next phase of project design. We anticipate that the signals will be within the construction limits.

Comment 6-2: If warranted, additional signing to alert drivers to not block driveway will be provided.

Comment 6-3: The project development team will consider including signage around the driveway next the bridge to ensure that traffic congestion does not block residents from accessing their property.

Comment 6-4: Traffic control devices such as changing arrow signals could be used to inform uses of the traffic direction.

Comment 6-5: The response time for the fire department is not anticipated to change. Caltrans will coordinate with all emergency services to ensure that emergency vehicles will be able to bypass any traffic congestion that may result from one-way traffic control. Please see Section 2.1.2 Utilities/Emergency Services, under subsection Environmental Consequences, for more information on emergency services traffic management plans.

Comment 7 – Roger Zimmerman

Original Comment

My concern is Emergency Vehicle Access. Mainly Fire Engines. Your construction season is also our fire danger season. Spring, summer, early fall are the busiest time on Highway 9. With traffic lights controlling one lane access across the bridge, traffic will be backed up. **[Comment 7-1** How quickly will fire engines be able to bypass backed up traffic and light signals?**]** Mountain fires spread very quickly! We live in a fire danger area! **[Comment 7-2** How fast will fire fighters be able to get to us?**]** **[Comment 7-3** Construction equipment has also been known to spark fires. How well will we be protected from this potential fire danger?**]** Fire and Emergency Vehicle Access is my main concern!

Caltrans Response

Comment 7-1: The response time for the fire department is not anticipated to change. Caltrans will coordinate with all emergency services to ensure that emergency vehicles will be able to bypass any traffic congestion that may result from one-way traffic control. Please see Section 2.1.2 Utilities/Emergency Services, under subsection Environmental Consequences, for more information on emergency services traffic management plans.

Comment 7-2: The current response times are not anticipated to change during, or after, construction.

Comment 7-3: Flame cutting of materials, as well as welding, are operations that have the potential to pose a fire risk. Fire prevention measures are detailed out in Caltrans' Construction Safety Orders, Division 1, Chapter 4, Article 36. General safety of compressed gasses and such used in flame cutting operations and welding are contained in the Construction Safety Orders, Division 1, Chapter 4, Article 32. These are laws that all construction projects must adhere to, just as multiple construction projects that have been successfully completed on Route 9 in the past decade.

Comment 8 – Matteoni O'Laughlin & Hechtman Lawyers

Original Comment

To Whom It May Concern:

This firm represents the Giannini family, the owner of Saratoga Springs, Inc. and the property located at the foot of, and surrounding area of the historic Saratoga Creek Bridge, formerly called Longbridge.

The family has reviewed the Draft ("EIR") and finds that it has not properly evaluated, nor contemplated the major impacts of Caltrans' proposed project on the Saratoga Springs Property. For the reasons explained below, the Giannini family urges Caltrans to conduct further analysis of its Bridge Project and fully evaluate its impacts on its environmental setting and the treasured historic resources of Saratoga Creek Bridge and Saratoga Springs.

What is clear to the family is that Caltrans' proposed project will destroy Longbridge's aesthetic and historical value to the community, and Caltrans' proposed use of the Saratoga Springs property for construction activity and related access for 3 to 4 years will have significant environmental impacts on their property and will likely destroy its use as a recreational and scenic event center certainly during construction and for years after to try to recover.

A. SARATOGA BRIDGE AND SARATOGA SPRINGS ARE HISTORICAL ICONS OF SANTA CLARA VALLEY

[Comment 8-1 Longbridge has been an iconic historic structure and a popular tourist destination since its construction in 1902. Its history is described by April Halberstadt, a Commissioner on Heritage Commission Santa Clara County, as follows: "Nearly 200 years ago a long bridge, a wood hewn structure, was created to bring lumber down from the Santa Cruz Mountains. Over a hundred years ago, a replacement stone bridge was created by journeymen masons - we still do not know who they were - but the stone bridge was built as a work of art. It was thoughtfully designed to fit in with Saratoga's natural landscape and created from stone quarried at the site."

We know the bridge was designed and built by the County's Surveyor, John J. McMillan. The stone used for facing the structure was an important design consideration. "McMillan was sensitive to design considerations of bridges in rural areas, often working stone into the surface texture to create harmony with the natural environment." - from COUNTY LEADERSHIP by Gloria Anne Laffey. Any replacement bridge proposed by Caltrans should also be as sensitive to design considerations and create harmony with the natural environment.

Saratoga Creek Bridge, as it is now known, and its surroundings are a state landmark under Saratoga's State Landmark "Saratoga #435." The bridge is also listed on Santa Clara County's Inventory of historic sites. Caltrans' own Historical Resources Evaluation Report acknowledges the Bridge is a state-owned historical resource and is eligible for both the National .and California Registers of Historic Places.

Saratoga Springs property is unique in California for being in continual use as a recreational and park event center since 1866. The Giannini family has owned the property since 1876 when it was purchased by their great, great grandfather, Joseph

Rispaud. These facts are also noted in Saratoga Historical Foundation's comment letter to the draft EIR: "Saratoga Springs is the Bay Area's oldest continually operating picnic facility. Family owned by 5 generations since 1876."**]**

Saratoga Bridge is also a part of Highway 9 which highway was designated in the 1970s a "State Scenic Highway." Streets and Highways Code section 260 sets forth that the legislative declaration of intent concerning scenic highways: " . . . is to establish the State's responsibility for the protection and enhancement of California's natural scenic beauty by identifying those portions of the state highway system which together with the adjacent scenic corridors require special scenic conservation treatment." **[Comment 8-2** Caltrans' build-alternatives for a replacement bridge fail to provide the requisite special *scenic conservation treatment* for Saratoga Creek Bridge and Saratoga Springs.**]**

B. INADEQUACIES OF THE DRAFT EIR

1. The Draft EIR/EA analysis is inadequate for failure to describe the Project's Environmental Setting so the Potential Impacts Can Be Evaluated

a. Caltrans' *Temporary* Use of Saratoga Springs' Property for Construction Activity and Access

[Comment 8-3 The project proposes, under all three-build alternatives, a taking of 73,000 square feet, about 1.7 acres, of Saratoga Springs Property, the heart of its event area, for a temporary construction easement estimated to last 3 to 4 years. This construction easement will take Saratoga Springs out of business during Caltrans' construction and likely years more to recover from such a drastic disruption and displacement.

The Project is also proposing two options for a temporary construction access road. Both of these road options are located on Saratoga Springs property.

The project's two construction staging and material storage areas, for all three build-alternatives, are also located on Saratoga Springs. The first area is within the 73,000-square-foot temporary construction area "on the northern side of the foot of the existing bridge, where there is an existing picnic area for a private event venue (see DEIR at p. 1 - 6). The picnic area, shown in DEIR Figure 1-4, is the largest and most used picnic area on the property as it is the scenic and historic heart of Saratoga Springs with the backdrop of Saratoga Creek Bridge. The second temporary construction area includes Saratoga Springs' main and overflow parking area at Sanborn Road and Highway 9.

Caltrans' use of the Saratoga Springs Property during construction, that is estimated to last 3 to 4 years, has permanent and disastrous consequences on Saratoga Springs historic and natural setting as well as its continued operation. Saratoga Springs cannot operate for the 3 to 4 years its property is occupied by Caltrans' for the project's construction activity, with the presence of the heavy equipment and trucks, with little to no visitor access and parking, construction noise, activity and dust.**]** Post-construction, the property's environmental setting will have been forever changed by Caltrans' 1.7 acre construction easement and **[Comment 8-4** its access road and will take years to recover**]**.

[Comment 8-5 The DEIR does not adequately describe the impacts of Caltrans' project on the Saratoga Springs property. Its description of the property's use and setting is

limited to a label: *private event venue*. That's it.**]** **[Comment 8-6** Caltrans has ignored the letters written by the Giannini family after the initial public hearing in May 2017, on its property, its history and use.**]** **[Comment 8-7** Moreover, the DEIR's use of the word "private" is misleading given the substantial number of people that visit Saratoga Springs. Its historical use for recreational, event and park use draws in tens of thousands of visitors a year who are there to appreciate its scenic, natural setting and views of the Saratoga Creek Bridge with its beautiful rock masonry and arches. The bridge is widely featured in wedding photos taken next to the creek.**]**

[Comment 8-8 There is no comprehensive analysis in the DEIR of the property's environmental setting on which Caltrans is imposing its 1.7-acre construction easement and access road. The property has two creeks Saratoga and Bonjetti (aka Sanborn), riparian habitat and vegetation, biological and forest resources with old and large oaks, redwoods and madrones located at the foot of Saratoga Creek Bridge. It has other cultural resources such as the remains of Campbell's Sawmill covered as a historic site under the State Historic designation given to Saratoga (California Historic Site # 435.)**]**

Caltrans' construction easement will cover 73,000 square feet of the property but the **[Comment 8-9** DEIR does not describe what exists within that 73,000 square feet and the proposed access roads. Without that description of the "baseline physical conditions," the DEIR cannot possibly determine the project's potential environmental impacts and thus does not comply with CEQA's requirements to describe the environmental conditions. A draft EIR " . . . must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published…, from both a local and a regional perspective. This environmental setting will normally constitute the *baseline physical conditions* by which a lead agency determines whether an impact is significant." (CEQA Guidelines, §15125, subd. (a) (italics added).**]**

This failure of Caltrans to evaluate in its draft EIR the baseline physical conditions to include environmental setting of the Saratoga Springs Property **[Comment 8-10** renders the EIR inadequate as was held in the case of *Galante Vineyards v. Monterey Peninsula Water Management District* (6th District 1997) 60 Cal.App.4th 1107.**]** In *Galante*, the Court of Appeal held inadequate under CEQA Guideline section 15125 the "environmental setting" portion of an EIR prepared for a proposed project to construct a new dam and reservoir. The EIR was found to not adequately assess the potential adverse effects of the project on the Galante vineyards particularly in the areas of traffic, air quality and climate. The court held the EIR's passing reference the land being mostly undeveloped with several vineyards did not satisfy the requirements of CEQA Guidelines. (Id. at p. 1121-1122.)

b. Caltrans; Temporary Construction Access Road- Options

The design and construction of temporary construction access roads have not been adequately described in order to evaluate their potential impacts on the environment and Saratoga Springs' Property. Without an adequate description of these proposed roads their potential impacts on the biological and forest resources (e.g., the trees, plants, riparian habitat and vegetation, Saratoga Creek and Bonjetti/Sanborn Creek) cannot be determined. Although the access road is considered temporary by Caltrans, its impacts on the environment are permanent.

The DEIR's description of these roads is very general (see DEIR pp. 1-6 - 1-8). **[Comment 8-11** Such a cursory description is insufficient to serve as the required, project-level EIR analysis.**]** "An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan … because the effects of construction can be predicted with greater accuracy. (CEQA Guidelines § 15146 subd. (b).) "[T]he courts favors specificity and use of details in EIRs." *Whiteman v. Board of Supervisors* (1979) 88 Cal.App.3d 397, 411.

[Comment 8-12 The road descriptions are also confusing because they appear to be mislabeled.**]** The DEIR states access option 1 "would use an existing paved access road in the adjacent property north of the bridge. (DEIR at p. 1-6.) But, Figures S-1 through S-3 show the location of Access Road option 1, paralleling Highway 9 and there is no paved, existing access road in that location. We assume the road options shown in Figures S-1 through S-3 are in error and that Access Option 2 should be labeled Access Option 1 and vice versa.

[Comment 8-13 The DEIR does not include a description of the existing paved road Caltrans intends to utilize for access road option 1.**]** The width of existing roads in Saratoga Springs are only 10 to 12 feet wide and down to 8 feet in some areas. **[Comment 8-14** The project proposes a 24-foot wide road, basically doubling the width of the current road.**]** It is not clear that the DEIR's description of the environmental condition includes the additional land area needed to double the size of the road. **[Comment 8-15** There is nothing specific on the trees, plants, vegetation and riparian habitat that may be damaged or removed to accommodate this wider road.**]** "An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. (CEQA Guideline § 15151.) **[Comment 8-16** There is no description in the DEIR of what the disturbed areas will look like at the completion of the construction and after the contractor leaves the property.**]**

[Comment 8-17 As to tree removal, Caltrans provided to Bill Giannini a project information sheet at public a meeting on February 28, 2018 (attached) which states that 80 to 260 trees will be removed for the three build alternatives and that the construction access roads will impact that total. This information conflicts with the tree removal discussion in the DEIR. We assume the tree removal tally in the DEIR (DEIR at p.86) and the proposed replacement of trees on-site at a 1 to 1 ratio (DEIR at p. 2-88) to be the correct information on tree removal.**]** The tree removal totals are substantial ranging from 234 to 258 trees. Tree replacement is a poor substitute, when "the trees planted after construction will take decades to reach the stature of existing condition." (DEIR at p. 2-41.)

Access option 1 is of particular concern because it proposes to use the existing bridge. This bridge is only about 8 feet wide and is a flat-rail car platform. **[Comment 8-18** It is not designed, nor is it wide enough to accommodate use by Caltrans' heavy, construction equipment and trucks.**]** **[Comment 8-19** The replacement or widening of this existing road would cause significant negative impact to the creek, the riparian habitat, the historic rock walls and remains of the Campbell Sawmill.**]** **[Comment 8-20** The damages to the environment caused by this road and bridge widening would be permanent and it does not appear that the DEIR has adequately examined these impacts.**]**

Many of the concerns we have with Access Option 1 are the same for Access Option 2, a new road to be constructed paralleling Highway 9. **[Comment 8-21** The primary concern is that the DEIR has not adequately studied the environmental setting of this proposed 24-foot-wide road in order to properly determine its impact on the environment. What are the specific trees, vegetation, and riparian habitat that will be damaged or removed to accommodate this new road?**]**

[Comment 8-22 The DEIR acknowledges the steep slope in this location and that grading is needed for the road but it gives no further information on the extent of grading**]** and **[Comment 8-23** whether it would conform with Santa Clara County's Grading ordinance.**]** The DEIR also states **[Comment 8-24** *temporary* retaining walls and/or a trestle to support the road may be necessary (DEIR at p. 56). No further detail is provided as to the potential location of these road features and the specific environment that will be disturbed or destroyed to accommodate these road features.**]**

It is also unclear from the project' description whether Caltrans **[Comment 8-25** intends to remove the access roads, retaining walls, and trestles post-construction.**]** And, if they are to be removed, what are the **[Comment 8-26** specific plans for restoration to mitigate the damage caused by the construction of these roads?**]**

Given what appears to be potentially significant impacts on the environment from these two access road options, **[Comment 8-27** the DEIR should evaluate alternative access from Sanborn Road or the property across Highway 9 from Saratoga Springs. The Family strongly feels that Caltrans needs to reconsider taking its temporary construction access from Sanborn Road. Although it is closer to the creek, this access would not have the current or lasting' affects of the two other road options on Saratoga Springs' property. Certainly Caltrans can impose mitigation measures to protect the creek during construction as it plans to do in diverting the creek.**]**

Lastly, of major importance to the Giannini Family **[Comment 8-28** is the DEIR does not address how access will be provided to their property during construction. If the existing private driveways are used only for Caltrans' construction access, the owners will have no access to the property. If access is to be shared there is no description in the DEIR of how this may work. Th DEIR fails to evaluate this traffic impact of the project.**]**

2. The Visual Impact Analysis Is Inadequate

a. The DEIR Should Have Saratoga Springs as a Key View Area

To be considered adequate under CEQA, the DEIR's **[Comment 8-29** visual impact analysis should include as a "Key View Area" the views of the Saratoga Creek Bridge at creek level from Saratoga Springs' Property.**]** It is significant that the photo selected for the DEIR's cover is a photo from creek level looking up at the bridge, but the DEIR contains no visual analysis from that viewpoint. Caltrans' explanation for this omission in its visual analysis hangs on a technicality. It claims the DEIR was only required to do a visual analysis from public viewing areas which only consists of highway users' views. This completely ignores the fact that **[Comment 8-30** Saratoga Springs, although privately owned, would be considered under CEQA as a public viewing area given the thousands of annual visitors who are there to enjoy this premium view of Saratoga Creek Bridge.**]** The DEIR's limited visual impact analysis conflicts with one of the primary goals of CEQA: " . . . the purpose of an EIR is to provide public agencies and the general public with detailed information about the effect which a proposed project is likely to have

on the environment. . . . " (Pub. Resources Code § 21061.) Saratoga Springs should be included as a key viewing area in the DEIR.

b. The DEIR Should Have Photo Simulations of Each Alternative from the Creek View

[Comment 8-31 The DEIR should also have photo simulations of each of the bridge alternatives to show the community how the bridge is expected to look under each alternative as viewed creek level from Saratoga Springs, which happens to be the bridge's most popular viewing area.**]**

Two of the three project alternatives will physically destroy this historic bridge and replace it with a modern structure. The third alternative, while a retrofit, will still basically destroy the aesthetics of the bridge, its stonework and arches. (DEIR at p. 2-30, the stone spandrel walls would be removed or covered.)

[Comment 8-32 The DEIR refers to the proposed "Bridge Aesthetic Treatment" but discusses it in very vague and general terms and with no photo simulations.**]** It states: "A context- sensitive texture and color will be used to minimize the change to the visual character caused by replacing or rehabilitating the existing historic structure." Without a photo simulation, it is hard to know what the bridge alternative will look like based on this very limited description in the DEIR. (The DEIR at p. 3-4.) **[Comment 8-33** It can only be assumed that the facing will be stamped concrete.**]**

c. The DEIR Should Have a Visual Impact Analysis of the Construction Access Road Options

[Comment 8-34 In addition to expanding the visual impacts analysis to include views of the bridge from Saratoga Springs Property and to include photo simulations of what each bridge alternative is expected to look like, further analysis is needed in the DEIR of the visual impact of the construction access road options as discussed above in this comment letter.**]** There are significant potential environmental impacts caused by the two road options which the DEIR has not properly evaluated. The visual impact of these roads must also be evaluated.

3. The DEIR Needs to Evaluate Additional Project Alternatives to Preserve the Saratoga Creek Bridge

Nothing is preserved of the historic Saratoga Creek Bridge under any of Caltrans' build alternatives. The double arches are removed and the stonework/rock masonry is either covered or replaced with some sort of concrete, stamp façade that will fool no one.

In recognition of the Saratoga Creek Bridge's historic stature and the aesthetic significance of its arches and masonry, the DEIR states that the impact of the project for all three build alternatives is "significant and unavoidable." (DEIR at p. 3-18.) Further it recognizes that even with mitigation measures being incorporated into the project, the measures would not reduce the impacts to a level of non-significance " . . . given the fact that the bridge is a rare example of its type in the area." (DEIR at p. 3-18.) **[Comment 8-35** But, the Draft E1R has no meaningful analysis of project alternatives to avoid the consequence of destroying this rare and historic bridge.**]** The EIR must analyze additional, feasible project alternatives to avoid the destruction of the bridge.

Such analysis should include alternatives that would improve the bridge's seismic safety standard to an acceptable level without destroying the Bridge's aesthetic qualities and

historical integrity and value.[3] **[Comment 8-36** The need for this bridge project is said to be based on seismic safety concerns but the engineering data to support that conclusion is not included in the DEIR. The DEIR needs to provide the engineering analysis relied on by Caltrans for its opinions on the seismic safety of the bridge.**]**

The DEIR states that the mitigation measure it proposes will not reduce the proposed project's impacts on the historical resources. (DEIR at p. 3-18.) But the measures it does propose are woefully inadequate. More analysis should be completed to propose more meaningful and detailed mitigation measures. **[Comment 8-37** The mitigation measures proposed are incomplete as Caltrans is still in consultation with SHPO regarding mitigation measures for the project.**]** (DEIR at p. 3-18.) **[Comment 8-38** And to the extent the draft EIR states what the mitigation may be they are extremely underwhelming, basically amounting to a record designation and a plaque that the bridge existed a one time.**]**

The fact that Highway.9 is a State scenic highway is an important factor that the DEIR should more fully analyze in its consideration of the project alternatives. **[Comment 8-39** The DEIR acknowledges this scenic designation but does not address the apparent conflicts between the project's build-alternatives and the State scenic highway protection statutes (Sts. & Hy. Code §§ 260-263.)**]** Section 260 requires for these scenic routes "continuing and careful coordination of planning; design, construction and regulation of land use and development by State and local agencies as appropriate to protect the social and economic values provided by the State's scenic resources." The destruction of the architectural beauty of Saratoga Creek Bridge and the scenic beauty of Saratoga Springs by Caltrans' bridge project certainly does not meet this legislative goal of protection. **[Comment 8-40** The DEIR also fails to describe how Caltrans' build alternatives comply with the pertinent planning and design standards for scenic highways as set forth in Section 261 of the Street and Highways Code, which specifically looks " . . . to protect the scenic appearance of the scenic corridor, the band of land generally adjacent to the highway right-of-way" which in this case includes Saratoga Springs. This protection includes " . . . careful attention to and control of earthmoving and landscaping; and the design and appearance of structures and equipment … " (Sts & Hwy Code § 261.)**]**

Given the project's build alternatives result in significant and unavoidable visual impacts and significant and unavoidable cultural resources impact, one can only conclude that these alternatives conflict with the design standards for scenic highways and scenic corridors.

The DEIR Evaluation of Agricultural and Forest Resource is Flawed.
[Comment 8-41 The DEIR finds no significant impact Agricultural based on its incorrect conclusion that "there are no_ parcels under a Williamson Act Contract within the project limits." (DEIR at p. 3-6.) In fact all the parcels in Saratoga Springs affected_ by the

[3] The Saratoga Historical Foundation has further suggested that the DEIR analyze and Caltrans consider keeping the Bridge for pedestrians and cyclists and constructing a second bridge for vehicular traffic.

project have been under the Williamson Act ·since the 1970s. The DEIR must correct this error and determine what additional analysis is needed.]

The DEIR's Noise Impact Analysis is Incomplete
[Comment 8-42 Because the DEIR does not adequately establish the baseline condition and describe the uses and environmental setting of Saratoga Springs it also fails to adequately evaluate the project's noise impacts on Saratoga Springs.] The Saratoga Springs property which has tens of thousands of visitors a year will be significantly impacted by the construction noise from the project. There are also more residences in the area than identified in the DEIR. [Comment 8-43 On Saratoga Springs property, there are 5 two-bedroom cabins and 42 RV sites.]

The DEIR Does Not Analyze the Projects Impact on Saratoga Springs' Water Supply Source from Sanborn (Bonjetti) Creek.
Saratoga Springs' water supply intake is just downstream from the bridge project. The DEIR makes no mention of this fact, therefore it does not describe how the project may impact the stream intake. For example, does the project propose to divert the water above or below· the point of intake? [Comment 8-44 The DEIR does not analyze the construction activity near the creek and diversion of the creek][Comment 8-45 that may result in the degradation of the water quality and negatively impacting Saratoga Springs' only water supply.]

CONCLUSION

For the reasons noted above, the DEJR is inadequate and CEQA requires further analysis of:

The project's environmental setting to include the Saratoga Springs Property,
Alternatives to the project which do not result in the destruction of Saratoga Creek Bridge,
The project's potential impacts on Saratoga Springs' Property, and
The adequacy of the proposed mitigation measures to alleviate the impacts on historical resources.
The Giannini Family urges Caltrans to conduct a more detailed environmental analysis of its Bridge project's significant environmental impacts on Saratoga Springs and the community and to conduct further analysis of project alternatives that would save the Saratoga Creek Bridge, an invaluable historical and cultural asset.

Caltrans Response

Comment 8-1: The HRER was prepared to evaluate the Saratoga Creek Bridge and nearby properties in 2016. This report was prepared by Caltrans Architectural Historians who are Professionally Qualified Staff, as defined by the California State Personnel Board and the Secretary of Interior's Professional Qualifications Standards. The methods used in the HRER are described in Section 2.1.5 Cultural Resources of this document.

The report details the history of the properties surrounding the Saratoga Creek Bridge, and the people involved with that history, to properly evaluate

the historical resources per state and federal requirements (laid out in the Regulatory sub-section of Section 2.1.5 of this document).

The Caltrans Professionally Qualified Staff determined that the Saratoga Creek Bridge was a historical resource eligible for inclusion in the NRHP and CRHR. The SHPO concurred with this determination in a letter dated December 20, 2016. A copy of this letter has been included here in Appendix F: Required Consultation/Concurrence Documentation.

A mitigation plan for impacts to the Saratoga Creek Bridge was proposed in the DEIR and has been finalized and included here in Appendix C: Avoidance, Minimization and/or Mitigation Summary. The mitigation measures were developed in coordination with a stakeholder coalition that was comprised of the Saratoga Historical Foundation, Santa Clara County Historical Heritage Commission, San Jose Public Library, Preservation Action Council San Jose, California Historical Society, California Preservation Foundation, History San Jose, and the Santa Clara County Parks – Sanborn County Park. Caltrans received concurrence from SHPO on June 20, 2019 for the mitigation measures. Additional measures to reduce visual impacts to the existing bridge have already been addressed as AMM Visual-1: Bridge Aesthetic Treatment (see Appendix C). AMM Visual-1 includes the use of a context sensitive approach to the design of the bridge façade in the selected preferred project alternative.

Caltrans Professionally Qualified Staff also made the determination in the HRER that the Saratoga Springs property, while historic, is eligible for neither the NRHP nor the CRHR. Therefore, under CEQA and NEPA, it is not considered a historic resource. The following excerpt from Attachment D: DPR 523 Forms in the HRER explains why this determination was made:

> Saratoga Springs did not earn the same degree of notoriety as Pacific Congress Springs, nor did it contain the same elaborate buildings. However, the site was continually used as a recreation and meeting place for the community and as such Saratoga Springs Campground is significant under National Register of Historic Places (National Register) Criterion A and the California Register of Historical Resources (California Register) Criterion 1 for its significant association with the settlement of the area as well as for its association with local recreation.
>
> Saratoga Springs Campground has been owned by the same family for almost all of the past one hundred and fifty years, apart from a brief time

at the turn of the twentieth century and a period in the 1960s-70s. French business partners Joseph Rispaud and Maurice Garcin purchased the property in 1866. When they resolved their partnership in the next decade the campground appears to have been sold to Maurice Dies, and briefly to the State of California when in 1921 Henry Rispaud and Renee Rispaud purchased the property. It was leased to Stubs Stollery in 1955, and by the mid-60s the campground was purchased by an investment company. Bill Gianinni, the current owner and grandson of Renee Rispaud purchased the property in 1972. Even though Garcin and Rispaud were some of the first people to inhabit the area they have proved to not have personally contributed to the development of the area, nor have the subsequent owners of the property, therefore Saratoga Springs Campground is not eligible for the National Register under Criteria B or the California Register under Criterion 2.

The buildings located on the campground have all either been substantially altered or constructed in the past decade. The ashlar walls that define the spaces are possibly from the original construction of the campground, but many have been relocated or truncated making it hard to determine the original layout of the campground. The general store was essentially rebuilt in 2014, and the only remaining features of the building are a few beams, which are somewhat visible from inside of the structure. The bathroom facilities have been heavily altered, and the new office building is a prefabricated structure installed circa 2014. Finally, the prefabricated WW II housing has been heavily altered with the additions of fenestrations. As such Saratoga Springs Campground is not significant under National Register Criterion C, nor California Register Criterion 3 as the types and methods of construction as no longer visible, the site was not constructed by a master, nor does it possess high artistic value.

Saratoga Springs Campground is also not significant under National Register Criterion D, or California Register Criterion 4 as it does not have the potential to yield new archaeological data.

The campground does have significance as a recreational site that has been continually used as such since 1866, however, the site no longer retains enough integrity to demonstrate this significance. As discussed above, the current general store was essentially rebuilt in 2014 on the foundation of the 1960s recreation room, which in turn was on the site

of the original bunkhouse dating back to the 1880s, however none of this history is evident on the site. Further, buildings have been added and removed continually over the past one hundred years. The ashlar walls, which are likely the only original features on the site, have been so altered that the original circulation of the campground is undiscernible. Additional walls that mimic the older ones have been added. As it stands today the campground appears as though it was constructed in the last fifty years, as such it does not retain integrity of design. The vast majority, save for some of the ashlar walls have been replaced, moved or removed and as such the integrity of materials and workmanship are also substantially affected. The setting and location of the campground remain, as it still sits in a wooded valley with a stream running through. The trees and landscape have continued to be incorporated into the spaces, apart from in the camping area, where they have been removed to make space for parking. Finally, the feeling and association of the site has been affected so much so that it appears a modern recreation facility. Due to its lack of integrity Saratoga Springs Campground no longer conveys its historic significance and as such is not eligible for the National or California Registers.

A copy of the HRER was provided to the Giannini family on May 8, 2017. The SHPO concurred with the determination in the HRER that the Saratoga Springs property is not eligible for the NRHP nor the CRHR in the previously mentioned concurrence letter (2016). The Saratoga Springs property is thus not eligible for regulatory protection under NEPA or CEQA as a cultural resource. The property has instead been evaluated as a private business on private property for the purposes of this document. This assessment is included in Section 2.1.1 Relocations and Real Property Acquisition.

The finished bridge will be context-sensitive, and the aesthetic treatments of the finished surface will have been developed with consideration of the public's input. The ABC Alternative proposes to also use a context sensitive architectural treatment on the body of the new bridge while the "Hybrid" Alternative would only need such treatments on the deck of the new bridge since the original structure would remain intact and visible. See minimization measure AMM Visual-1 below. Please see section 2.1.4 Visual/Aesthetics in the FED for more detailed information about context sensitive solutions Caltrans intends to employ.

AMM Visual-1: Bridge aesthetic treatment calls for a context-sensitive texture and/or color treatment to be incorporated in the final bridge structure design (see Sections 2.1.4 Visual/Aesthetics; 3.2.1 Aesthetics; and Appendix C. Avoidance, Minimization and/or Mitigation Summary). Caltrans will work with local agencies on developing a context-sensitive design treatment for the new bridge to minimize the change in the visual character caused by the replacement of the existing bridge.

Comment 8-2: Caltrans is committed to minimizing project-related visual impacts to scenic state highways. The build alternatives consider the designated scenic highway status of SR-9. Measures to minimize and mitigate visual impact have been incorporated into the project as listed in the environmental document in Section 2.1.4 Project Features, as well as Avoidance, Minimization, and/or Mitigation Measures.

The protections set forth for California's State Scenic Highways can be found in California Streets and Highway Code Article 2.5 State Scenic Highways [260-284]. Section 261 requires that Caltrans, "…shall give special attention both to the impact of the highway on the landscape and to the highway's visual appearance." A highway that has official designation as a State Scenic Highway has established its scenic character and quality, demonstrated public value of the highway's scenic quality, and indicated public desire to preserve that quality through a Corridor Protection Plan. The methods of this evaluation are explained in the Visual Setting subsection of Section 2.1.4 and adhere to Caltrans' standard practices laid out in Chapter 27 – Visual & Aesthetics Review (California Department of Transportation, 2018).

Per these guidelines, the existing bridge and Saratoga Springs were determined to not be visible from the scenic highway due to the curvature of the roadway alignment, the steepness of the hillside's slope, and the density of the mature trees lining SR-9 (see the Key Views 1 and 2 in Figures 2.1-6 and 2.1-7 respectively). Key View 3 (Figure 2.1-8) does have some visibility of the existing bridge structure but is taken from Sanborn Road. Visual impacts to the State Scenic Highway designation of SR-9 by the project alternatives are analyzed in Section 2.1.4 Visual/Aesthetics, Section 2.4 Cumulative Impacts, and Section 3.2.1 Aesthetics.

AMM Visual-1: Bridge aesthetic treatment calls for a context-sensitive texture and/or color treatment to be incorporated in the final bridge structure design (see Sections 2.1.4 Visual/Aesthetics; 3.2.1 Aesthetics; and Appendix C.

Avoidance, Minimization and/or Mitigation Summary). Caltrans will work with local agencies on developing a context-sensitive design treatment for the new bridge to minimize the change in the visual character caused by the replacement of the existing bridge.

Caltrans is committed to minimizing project-related visual impacts to scenic state highways. The build alternatives consider the designated scenic highway status of SR-9. Measures to minimize and mitigate visual impact have been incorporated into the project as listed in the environmental document in Section 2.1.4.5 Project Features and in Section 2.1.4.6 Avoidance, Minimization, and/or Mitigation Measures.

Comment 8-3: The preferred alternative is expected to be completed in 1 year. Since this is a novel design approach, there is some risk that it may take longer than 1 year, but this is not anticipated. Some activities at Saratoga Springs Picnic and Campgrounds, Inc. may continue given that the construction area will be cordoned off with high fences to prohibit access to the construction site. There would be no anticipated impacts to access if TCAR Option 1 is selected , and Caltrans will work with the property owners to ensure access if TCAR 2 is selected. Construction activities on Saratoga Springs property will stay within the TCE. Normal use of the property outside the TCE area may continue during construction at the discretion of the owner since the property owner has control of the area outside of the TCE. Limitations would only pertain to the area of the TCE. With the exception of tree maturity and addition of rock slope protection at the central pier, Caltrans will restore the TCE to its original condition.

In terms of the consequences to the “historic and natural setting”, Saratoga Springs Campground property is not a historic resource per NEPA/CEQA (Section 106). Saratoga Creek Bridge is and the impact to that resource is significant and unavoidable, which discussed in detail in Section 2.1.5 Cultural Resources, under subheading Cultural Resources Coordination Efforts, in addition to Appendix A Section 4f.

The largest effect to the natural setting on Saratoga Springs Property is from the vegetation removal, which would gradually lessen over the years as replacement trees mature. 2.1.4 Visual/Aesthetics, Environmental Consequences section.

Comment 8-4: Restoring impacted areas of the existing Saratoga Springs Picnic and Campgrounds, Inc. access road to their original condition is

currently anticipated to take about 1-2 months if TCAR Option 2 is selected and any impacts occur to the existing access road. There are no anticipated impacts to the existing access road if TCAR Option 1 is selected.

Comment 8-5: The Saratoga Springs Picnic and Campground's, Inc. is described as a private event venue in the environmental document because the property and business are privately owned. This is an important and accurate distinction with regards to the Section 4(f) evaluation in Appendix A. Under Section 4(f), public ownership is defined as ownership by a local, state, or Federal government agency. Since the business is not owned and operated by a public government agency, it is not considered a public facility. The project's potential impacts are evaluated for individual environmental resources across the entire area included in the project footprint, which includes the Saratoga Springs Property. The description of the environmental setting for each resource evaluated is included in each subsection titled Affect Environment for that resource, all of which are included in Chapter 2.

Comment 8-6: The PDT included the Giannini family in the public scoping process at the beginning of the project development phase in 2016. The project manager met with the family at the beginning of the project scoping period in 2016 to introduce the family to the project and discuss their concerns. The family was sent a Notice of Preparation for the project that described the purpose and need of the project, the current project alternatives, the project location, and the environmental concerns. The family was invited both to a public scoping meeting (see Section 4.1.2.1 Public Scoping Meeting) and to a focused scoping meeting where all of the adjacent landowners to the project site were invited (see Section 4.1.2.4 Landowner Scoping Meeting). The Giannini Family attending the landowner scoping meeting where the top concerns that were communicated to Caltrans were (in order of most to least important): relocation of the bridge to the north, impacts on the adjacent business, financial loss from construction, traffic detour congestion, impacts to adjacent residences with the south alignment, and retention of the visual value of the existing bridge. The PDT took this information and worked on refining the proposed alternatives to:

- Reduce the size of the realignment of the North and South Realignment Alternatives to reduce the amount of right of way impacts to both the Saratoga Springs Picnic and Campgrounds, Inc. and the adjacent home owner;
- Reduce the initial construction timeframe from 6-7 years to 3-4 years;

- Reduce the need for one-way traffic control to shorter time periods.

Information on the history of the property, and its use, was communicated with the Caltrans Architectural Historian and Archaeologist. This information was documented and used to help inform the HPSR, HRER, and ASR. These reports are referenced and summarized in Section 2.1.5 Cultural Resources. Copies of these reports are available upon request.

Comment 8-7: The number of visitors to the Saratoga Springs Picnic and Campground's, Inc. does not factor into whether or not the business is considered a public or private facility. The business is not owned and operated by a public government agency, so it is not considered a public facility. This is an important distinction with regards to the Section 4(f) evaluation in Appendix A. Under Section 4(f), public ownership is defined as ownership by a local, state, or Federal government agency. Impacts to all resources were considered in the DEIR and FEIR. The project's potential impacts are evaluated for individual environmental resources across the entire area included in the project footprint, which includes the Saratoga Springs Property. The description of the environmental setting for each resource evaluated is included in each subsection titled Affect Environment for that resource, all of which are included in Chapter 2.

Comment 8-8: The project's potential impacts are evaluated for individual environmental resources across the entirety of the project footprint area, which includes the Saratoga Springs Property within it. The description of the environmental setting for each resource evaluated is included in each subsection titled Affect Environment for that resource in Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures.

Comment 8-9: The project's potential impacts are evaluated for individual environmental resources across all area included in the project footprint, which includes the Saratoga Springs Property. The description of the environmental setting for each resource evaluated is included in each subsection titled Affect Environment for that resource, all of which are included in Chapter 2.

The project's setting is not described in a piecemeal fashion dependent on the section of private property over which it lies because this would not give an accurate description of the whole project's impact to each resource. The impacts of particular project features are described in each resource section

of Chapter 2, depending of if a particular feature has the potential to impact that resource. The project's potential impacts are evaluated for individual environmental resources across the entirety of the project footprint area, which includes the Saratoga Springs Property within it.

The 73,000 square feet of the property are included within the project footprint that was analyzed for potential impacts. The area of the property being considered for impacts can be seen in image 1-11, Alternative 1.1 Proposed Layout: Maintain Existing Roadway Alignment with Hybrid Bridge, referred to as 'Temporary Construction Easement'.

Comment 8-10: The baseline conditions of the project site are adequately described in each section of the relevant environmental resource in Chapter 2. The project's impact to environmental resource are evaluated at the level of the project impact and not by specific properties. This allows the environmental document to provide a more complete picture of the project's impacts to the resource. Each environmental resource that the Saratoga Springs Picnic and Campground, Inc. contains is included in the appropriate section of the environmental document for that resource.

The evaluation of the project's impacts to Saratoga Springs Picnic and Campground's, Inc. is done through the analysis of the right-of-way impacts in Section 2.1.1.1 Relocations and Real Property Acquisitions and through the analysis of human impacts in Section 3.2.19 Mandatory Findings of Significance part (c). The impacts anticipated for this project are localized to the area immediately around the existing Saratoga Creek Bridge and will not have long term effects on the rest of the Saratoga Springs Picnic and Campgrounds, Inc. property.

Comment 8-11: The description of the temporary access roads found in Section 1.5.1 Common Design Features for Build Alternatives, subsection Access to Project Site, is sufficient for an analysis of their potential environmental impacts in the EIR/EA. As previously explained, the project impacts are evaluated for each resource over the entire project footprint area. Therefore, the impacts of the temporary access roads are included under the umbrella discussion of biological impacts. Impacts from all project features were separately analyzed and mapped out in the Biological Natural Environmental Study. However, for the purposes of writing the biology section in the FEIR, impacts were combined and discussed based on habitat type. The project development team assumed the worst-case scenario for the

construction of the temporary access roads with the full removal of all vegetation surrounding TCAR 1.

Comment 8-12: Comment noted. The images were labeled correctly for consistency with internal documents, but the written description was incorrect. TCAR 1 would be cut into the side-slope below SR-9 and TCAR 2 would use the existing paved road north of the bridge. The description of access roads has been updated with the appropriate TCAR Option 1 & 2 labeling to be consistent with project figures. We will respond to concerns about the TCAR using the existing paved road, properly referred to as TCAR Option 2, below.

Comment 8-13: The FEIR describes the existing access road that is proposed for use in TCAR Option 2 in the aforementioned section on page 1-9.

Comment 8-14: The current proposal for TCAR Option 2 is for the existing access road on the property to remain as is. No additional work on the existing road is anticipated until further investigation is permitted if Option 2 is selected. Vegetation trimming is currently proposed for vegetation encroaching onto the roadway and overhead. The mention of a road 24 feet wide is for TCAR 1, along the existing side slope. This width is the maximum width, not minimum. Please refer to Access to Project Site in Section 1.5.1 of the FIER for more information on the TCAR options.

Comment 8-15: The baseline information on trees, plants, vegetation, and riparian habitat is described in Section 2.3.1 National Communities. There is no proposed widening for Temporary Construction Access Road Option 2. The only work currently proposed for this option is vegetation trimming. Trimming will be limited to less than 30% of the body of the vegetation and the trimming will not compromise the health of the plant. Table 2.3-3 provides an estimate on the number and species of trees that are anticipated for removal for each alternative. This estimate assumes that all of the trees within impact areas would need to be removed. The project development team would work with the contractor to reduce this number. The impact areas evaluated include the worst-case scenario for impacts from potential access roads. Impacts from all project features were separately analyzed and mapped out in the Biological Natural Environmental Study. However, for the purposes of writing a coherent biological document in the FEIR, impacts were combined and discussed based on habitat type. The impacts to biological resources are discussed in the FEIR based on the worst-case impact

scenario, which would result from a project footprint that includes a new TCAR cut into the wooded slope west of the bridge, as opposed to using the existing road on the Saratoga Springs property. If this TCAR option is chosen, the existing road will not be widened. The road will be used as is, then repaved once construction is complete.

Comment 8-16: The proposed project features in Section 1.5.1 Common Design Features of All Build Alternatives, subsection Additional Project Features contains the following descriptions

> A replacement planting plan, using site-appropriate native plants, would be developed to restore disturbed areas after construction. The natural topography would be restored to the extent practicable, and replanting would be done as soon as cleared areas are no longer needed for construction activities.

Comment 8-17: The tree removal estimate provided in the environmental document is a worst-case scenario for each alternative where every tree within the project footprint must be removed. The tree removal estimate presented on a visual display at the public scoping meeting is an approximate range specifically conveying the fact that tree removal will vary greatly based on the construction access route that is utilized, as well as efforts by the tree specialist and the project engineer to reduce impacts to trees.

Comment 8-18: The existing bridge on the Saratoga Springs property was included in the evaluation of impacts for the entire project area within each resource section. The project's potential impacts are evaluated for individual environmental resources across all area included in the project footprint, which includes the Saratoga Springs Property. The description of the environmental setting for each resource evaluated is included in each subsection titled Affect Environment for that resource, all of which are included in Chapter 2. If the option to use the existing road for construction access is chosen, Caltrans would conduct additional engineering evaluations of the bridge. Plans would be developed during the next phase of project design if TCAR Option 2 is selected.

Comment 8-19: Vegetation trimming is currently the only proposed work for Temporary Construction Access Road Option 1.

Comment 8-20: All potential impacts from the work proposed for Temporary Construction Access Road Option 1 are considered temporary. The project's

potential impacts are evaluated for individual environmental resources across all area included in the project footprint, which includes the Saratoga Springs Property. The description of the environmental setting for each resource evaluated is included in each subsection titled Affect Environment for that resource, all of which are included in Chapter 2.

Comment 8-21: The impacts presented for all build alternatives in the environmental document are for the project as a whole and are based upon the assumption that Temporary Access Road Option 1 will be constructed. This decision was made because this build option has the highest environmental impacts of the two. If Temporary Access Road Option 2 was chosen, the amount of tree removal, impacts to vegetation, and impacts to riparian habitat would only decrease. The project's potential impacts are evaluated for individual environmental resources across all area included in the project footprint, which includes the Saratoga Springs Property. The description of the environmental setting for each resource evaluated is included in each subsection titled Affect Environment for that resource, all of which are included in Chapter 2.

Comment 8-22: The FEIR assumes the greatest potential impact for construction of Temporary Construction Access Road Option 1 would occur. This assumption is that all trees within the TCE area would be removed and that the entire TCE would be impacted. The exact location of the project features for construction of Temporary Construction Access Road Option 2 were not necessary since the worst-case scenario was analyzed. Locations of features such as retaining walls/trestles will become more precise as the design is further developed and impacts are expected to be reduced in the final design.

Comment 8-23: Caltrans will follow the State of California Department of Transportation 2018 Standard Specifications for grading. Caltrans is a state governmental agency and, as such, is not required to follow the guidelines or ordinance of local governmental agencies.

Comment 8-24: The impacts as assessed in the FEIR assume the greatest potential impact for construction of Temporary Construction Access Road Option 1. Locations of features such as retaining walls/trestles will become more precise, and impacts are expected to be reduced as the design is further developed.

Comment 8-25: Temporary Construction Access Road Options 1 & 2 are both temporary and the portions of property outside of the Caltrans right-of-way will be restored back to its original state as closely as possible. This would include any new structures constructed by Caltrans for access to the project site.

Comment 8-26: Please see the answer to Comment 8-16 as well as the AMM Visual-2: Funding for Mitigation Planting, AMM BIO-2: Tree Removal Tally, AMM BIO-3 Tree Replacement, and AMM BIO-4 Riparian Habitat Replacement. Specific restoration plans will be drawn up once a preferred alternative has been chosen during the next phase of project design, as the project plans are finalized. In the DEIR it is assumed that the onsite mitigation planting will occur on disturbed areas, including the TCAR option 2.

Comment 8-27: The PDT did consider two other alternative construction access options. The first alternative construction access option considered was to lower equipment down from the existing deck of the Saratoga Creek Bridge. This option was dropped due the uncertain condition of the existing structure to withstand the additional stresses this would cause.

The second alternative construction access option was to access the base of the existing bridge from Sanborn Road. This option was dropped due to the direct proximity to Sanborn Creek that would result in additional disturbance to the creek bed caused by the need to expand the length of the proposed creek diversion, potential impacts to the creek caused by construction work on the slopes of the creek to construct a temporary access ramp down from Sanborn Road, the removal of additional mature riparian trees to construct a temporary access road and ramp, additional impacts to property outside of the Caltrans right-of-way, and the additional time this would add to the overall construction timeline since the temporary construction access road would have to be removed and re-installed each year in order to avoid impacts to Sanborn Creek during the wet season.

Comment 8-28: Access to the existing Saratoga Springs Picnic and Campgrounds, Inc. will depend on the Temporary Construction Access Road Option that is selected and will be discussed in the next phase of project design when the Right of Way agent works with the property owners on obtaining the necessary Temporary Construction Easement Agreements for constructing the proposed project. Access to the property will be maintained at all times.

Comment 8-29: The aesthetic quality of the historic bridge is protected as a public resource; therefore, publicly accessible views were used to represent project changes in simulations. However, the potential impacts to *all* viewers, both public and private, were analyzed in the Visual Impact Assessment. Key view 3 from Sanborn Road, where the bridge structure is visible to the general public, was included in the Visual Impact Assessment. See discussion of Key View 3 under subheading Affected Environment in Section 2.1.4 Visual/Aesthetics. Simulation of projects from private views is done only when it is the best way to communicate project impacts. To this end, Caltrans has produced a simulation of what Alternative 1.1 “Hybrid” may look like when viewed from the Picnic Area (Figure 1-13).

Comment 8-30: Caltrans relies on its own guidelines for preparing the Visual Impact Assessment which can be found in Volume 1: Guidance for Compliance, Chapter 27 – Visual & Aesthetics Review of the Standard Environmental Reference. This can be publicly accessed at https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser.

Comment 8-31: See response to comment 8-29 above.

Comment 8-32: The commitment to such an aesthetic treatment is part of the environmental document. However, at the DEIR stage, the bridge design, including bridge type, is not yet finalized. Any aesthetic treatment would be sensitive to the bridges context and developed with input from the community in mind. For the DEIR, we feel it is important to keep aesthetic options open enough to be able to adapt to design decisions, project changes, and public comment. Since public comment on the DEIR lead Caltrans to develop the “Hybrid” Alternative, an aesthetic treatment is no longer necessary.

Comment 8-33: The finished surface material is not yet determined. Stamped concrete is one option to achieve an aesthetic treatment. The final approach will be determined considering aesthetic preferences, construction time and cost, and maintenance requirements. Please see response to comment 8-32 above.

Comment 8-34: The visual quality of the historic bridge is protected as a public resource, and it is convention to prepare simulations from publicly accessible vantage points. Because Saratoga Springs is a private property, there was no simulation from it included in the visual impact assessment and the DEIR. However, though Caltrans typically does not evaluate impacts to

views from private properties, the visual impacts to Saratoga Springs are included in the written analysis of the impact due to the anticipated high sensitivity of staff and visitors. A photo simulation of the finished bridge's profile is included in the FEIR for a more detailed depiction of how the final project may appear. Please see Figure 1-13: Visual Simulation of "Hybrid" Alternative as Viewed from North of the Bridge.

The construction of the TCAR would require substantial tree removal. This is discussed and simulated in Key Views 1 and 2. The project's potential impacts are evaluated for individual environmental resources across all area included in the project footprint, which includes the Saratoga Springs Property.

Comment 8-35: The proposed Retrofit Alternative did not require the demolition of the existing bridge. There were also other alternatives that were previously considered but ultimately deemed infeasible that may have retained the existing bridge structure. The analysis of these alternatives is included in Section 1.6.2 Alternatives Considered but Withdrawn from Further Consideration and in Appendix A: Section 4(f).

Comment 8-36: The studies upon which the document is based are appropriately summarized in the document. Caltrans aims to make the public document accessible to as many readers as possible while still retaining enough detailed information to allow readers to be informed. CEQA guidelines require "A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities," (CEQA §15124, (c)), and explain that, "Preparation of EIRs is dependent upon information from many sources, including engineering project reports and many scientific documents relating to environmental features. These documents should be cited but not included in the EIR." (CEQA §15148).

Comment 8-37: Per Caltrans procedure, mitigation measures for historic resources are developed in consultation with interested parties and stakeholders following the public circulation of the DEIR. Caltrans initiated consultation with the SHPO on October 27, 2016 and received SHPO concurrence on determinations of eligibility for historic resources within the Area of Potential Effects on December 20, 2016. Following circulation of the DEIR, Caltrans consulted with interested parties and stakeholders to develop mitigation measures. These measures are captured in a Memorandum of

Agreement between Caltrans and the SHPO, and was signed prior to the circulation of the FED, on June 20, 2019. The consultation process is described in 2.1.5 Cultural Resources, under subheading Environmental Consequences.

Comment 8-38: Mitigation measures were developed per the procedure outlined in response to Comment 8-37. Due to the location of the bridge and the roadway leading to and from the bridge a plaque was rejected from being adopted into the avoidance, minimization, and mitigation measures at the mitigation roundtable meeting held on May 29, 2018. A full list of mitigation measures can be found in 2.1.5 Cultural Resources of the FEIR, under subheading Avoidance, Minimization, and/or Mitigation Measures.

Comment 8-39: There are no conflicts between the build alternatives and the State Scenic Highway protection statutes. Caltrans is committed to avoiding and minimizing visual impact to Scenic Highways and has committed to several AMMs as listed 2.1.4 Visual/Aesthetics of the FEIR, under subheading Avoidance, Minimization, and/or Mitigation Measures. Earlier alternatives were rejected in part because the visual impact would have been greater.

Comment 8-40: There are five legislatively required elements for scenic corridor protection:

1. Regulation of land use and density of development;
2. Detailed land and site planning;
3. Control of outdoor advertising;
4. Careful attention to and control of earthmoving and landscaping; and
5. The design and appearance of structures and equipment.

Of these, numbers 4 and 5 are pertinent to Caltrans' role in this project. The AMM Visual-1 Bridge Aesthetic Treatment in the environmental document serve to commit Caltrans to avoiding and minimizing visual impact to the extent feasible.

Comment 8-41: The parcel of land that the Saratoga Springs Picnic and Campgrounds, Inc. is located on was previously enrolled in the Williamson Act program, but the Williamson Act contract was not renewed, and the contract has since been terminated. This reflects the determination made in the environmental document and no correction is needed.

Comment 8-42: A Noise Study Report was not done for this project because the project is not a Type 1 project per 23 CFR 772. The project is not a Type 1 project because none of the current build alternatives in the environmental document substantially change the horizontal or vertical alignment of SR-9 and there are no additional lanes proposed for the project. Construction Noise Impacts have been evaluated and are in Section 2.5 of the FEIR.

Comment 8-43: There will be no increase in the ambient noise levels of SR-9 to any of the nearby residences as a result of this project because the project does not propose to move SR-9 closer to any residences or add new lanes that would increase the number of cars moving through the area. Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (California Deparment of Transportation Division of Environmental Analysis 2011) was used to assess the project's potential to increase the ambient noise level in the area surrounding the project. This analysis showed that the noise levels that would result from the project's construction activities are temporary and would not change existing levels. There are no anticipated permanent noise impacts that would result from any of the proposed project alternatives. Please refer to the Construction Impacts sectio in Chapter 2.5 for more detailed construction noise analysis.

Comment 8-44: The analysis for potential construction impacts to both Sanborn Creek and Saratoga Creek are located in the DED in Sections 2.2.1 Water Quality and Storm Water Runoff, 2.3.1 Natural Communities, 2.3.2 Wetlands and Other Waters, and 2.3.5 Threatened and Endangered Species.

Comment 8-45: Direct construction work impacts to Sanborn Creek will be avoided by the use of a temporary creek crossing and/or creek diversion system. This feature is described in the environmental document in Section 1.5.1 Common Design Features of All Build Alternatives. Saratoga Springs Picnic and Campground, Inc.'s water supply intake is situated about 150 ft. downstream of the proposed temporary creek crossing and/or creek diversion system.

The water from Sanborn Creek would bypass the work area by a completely sealed diversion pipe and water quality would be monitored (see response to Comment 2-4 for a discussion about water quality monitoring). Construction BMPs would be implemented for the construction site to avoid the potential for water quality impacts to the maximum extent possible, as described in Section 2.2.1 Water Quality and Storm Water Runoff. Caltrans does not

anticipate violating any water quality standards or waste discharge requirements with the implementation of the proposed BMPs, project features, and AMMs that are described in Section 2.2.1.

The water from Sanborn Creek should be tested and treated according to the drinking water standards set by the California Water Board before being used for human consumption. Drinking creek water directly from the creek, without proper testing and treatment, can lead to serious health problems. Saratoga Spring Picnic and Campground, Inc. is responsible for the drinking water testing and treatment that need to be done on the water they withdraw from the creek, even when there is no construction activity within the creek.

Comment 9 – Ray Cosyn

Original Comment

I am writing to ask you not to tear down the Long Bridge. It has been in place since 1902 and as a result **[Comment 9-1** has withstood 2 major earthquakes and is doing quite well for a bridge which is 115 years old. It is made of rock and cement much of it quarried in the local areas.**]** As a cyclist, one who has ridden the bridge for a number of years, **[Comment 9-2** I am asking that you consider alternatives to tearing down this key piece of Saratoga history.**]**

-- *Ray Cosyn*

Caltrans Response

Comment 9-1: The survival of the bridge through previous earthquakes does not a guarantee that the bridge will withstand future earthquakes. The intensity of earthquakes is not felt uniformly across the areas that they affect. Things like the distance from the epicenter, soil/rock types, and the shear wave velocity of the energy released by the earthquake can mean that different locations may not feel the same intensity of the earthquake, even if they are the same distance from the epicenter. This means that major past earthquakes were not necessarily as intense at the location of the existing bridge.

The current state of the bridge materials is also a factor that is taken into account when assessing the ability of the existing bridge to withstand a future earthquake. Previous earthquakes occurred at a time when the bridge was much younger, and it is speculated that the materials that make up the bridge had not yet reached the current state of deterioration that was observed in the bridge inspection that is described in Section 1.2 Purpose and Need of the environmental document. Repeated exposure to mechanical stress from seismic events may also have further weakened the materials of the bridge beyond just the deterioration caused from time and weathering.

Comment 9-2: Of the twelve project alternatives considered over the course of the project's development, eight alternatives would have retained the existing structure in one fashion or another. One of those alternatives, the "Hybrid" Alternative has been chosen as the preferred alternative. These other seven alternatives are discussed in Section 1.6.2 Alternatives Considered but Eliminated from Further Discussion Prior to Final EIR/EA. This section also includes the reasoning for why these alternatives were withdrawn from further considerations. These range from hazardous construction conditions, long construction timelines, and visual impacts through modification of the bridge façade.

Comment 10 – Bill Giannini

Original Comment

Dear Brian and staff:

Thank you for sending the team yesterday, March 20, 2018 for our meeting at Saratoga Springs. It was very beneficial for us and the Caltrans team. Please note a few things that I believe we all concluded and comments to the EIR:

[Comment 10-1 1) A very important new issue was the discussion of Caltrans investigating a build option that would only take 1 year. Since time is very much of the essence to us, we would like to see conceptual drawings, location of the bridge, etc. for such an option.**]**

[Comment 10-2 2) Please address and advise if the time to build would be different for current options 1, 2, or 3.**]**

[Comment 10-3 3) We all concluded that Temporary Construction Access Road (option 1), the cutting of a new road off of Hwy 9, should be eliminated.**]**

[Comment 10-4 4) Caltrans will revisit construction access from Sanborn Road including using access from neighboring property.**]**

[Comment 10-5 5) Caltrans will consider using Sanborn Road for construction staging. **]**

[Comment 10-6 6) Any construction staging on Saratoga Springs property will only be below the bridge (our Longbridge Picnic area) itself and the upper overflow parking area on the West side of Hwy. 9. **]**

Specifically the East side of Hwy 9 will be left for Saratoga Springs use for parking, bus turn around, etc. Additionally there are many septic tank and leach line issues on the East side of Hwy 9.

[Comment 10-7 7) It was recognized that the width of the existing bridge does not work for Caltrans construction equipment. The temporary construction bridge should be built as a permanent replacement to the existing bridge and left after construction, and it should be delivered in good condition. It needs to be pedestrian safe and sensitive to the environment of the creek where located. **]**

[Comment 10-8 8) Use of our current paved road for Temporary Construction Access will be shared use. Caltrans will communicate use of road for large

equipment and will be at mutually agreed upon times. Pickup type traffic will be open at all times. **]**

[Comment 10-9 9) Caltrans should only pursue rehabilitation alternatives as federally accepted for historic structures. **]**

Saratoga Springs Picnic and Campgrounds, Inc.

John Giannini, President

Mimi Giannini, Vice President

William H. Giannini, Co Property Owner

Gary V. Giannini, Co Property Owner

Caltrans Response

Comment 10-1: Caltrans intends to use an accelerated construction schedule. A majority of the work will be done within a single calendar year. Please see Section 1.5 Project Alternatives in the final environmental document. We will be available to discuss this in detail after the FED is published.

Comment 10-2: Please see comment 10-1.

Comment 10-3: The option for the Temporary Construction Access Road Option 1 is still under consideration pending full evaluation of the site and construction requirements for both Temporary Construction Access Options.

Comment 10-4: Caltrans had initially considered constructing a temporary construction access road along Sanborn Road to access the construction area from the south side by constructing a road using a trestle. However, it was dropped when we determined that this option would have had significantly increased environmental impacts and compromised our ability to complete construction in 1 year.

Comment 10-5: There is insufficient space to use for construction staging and storage on Sanborn Road.

Comment 10-6: The exact locations of the project staging areas have not been finalized. Caltrans will minimize any potential impacts to any construction staging areas that are used.

Comment 10-7: Caltrans has not yet determined whether the existing bridge on Temporary Construction Access Road Option 2 is wide enough. If the

bridge is used for construction purposes, it will be restored to, at least, the same condition it was in prior to construction.

Comment 10-8: The Caltrans construction team will coordinate with the property owner to ensure safe access for all road users for whichever temporary access option is chosen by the project development team.

Comment 10-9: Caltrans has evaluated the rehabilitation alternative per the Caltrans Standard Environmental Reference: Volume 2 -Cultural Resources (California Department of Transportation, 2015) and The Secretary of the Interior's Standards for Rehabilitation (36 CFR 67). This evaluation is summarized in the Final EIR/EA in Section 2.1.5 Cultural Resources (pg. 2-45) and in Appendix A Section 4(f).

Comment 11 – Adrienne Zimmerman

Original Comment

To Whom It May Concern:

I would like to express my thoughts regarding the saving of the 116 year old Long Bridge.

It has carried many people over a century across this canyon so they could get to their destinations (to buy provisions, go to school, see the doctor, etc.) and back home. Some of these people being my great-grandparents, grand-parents, cousins. In addition, we have known people (family friends) who have had farms, ranches with livestock (who lived in the mountains off Big Basin Way) who used this bridge to get provisions for themselves and supplies for their animals. Not to forget the Savannah Chanelle Winery which is open 7 days a week who depend on the general public to purchase their wines, etc. and the needs of the winery to receive supplies and transport wine from their facility during the year.

However, I do hold a special place in my heart for this bridge because I lived at Long Bridge Picnic Grounds (now called Saratoga Springs Resort), with my parents, two older brothers, Aunt Renee Rispaud and her two daughters, Eugenie (Rispaud) Bailey and Henrietta (Rispaud) Giannini. The resort is now owned by Henriettas' son William and his children. In addition, I have had the wonderful experience to cross over this bridge many times over my 78 plus years in order tovisit my relatives in the mountains and still do visit many of the places now, however, the relatives have long passed away, but there are still so many wonderful memories.

William and his family will have a very difficult time managing their business if this bridge is shut down for even 1 or 2 years. They depend on this business to make a living all year long by having people reserve well in advance their camping sites for motorhomes, campers and tents; in addition to the general public, some large tech companies have huge company picnics at their facility, they must make reservations many months in advance in order to get the time slot they desire; the same happens when bridal parties contact the family to make wedding plans of which they have numerous weddings throughout the year. They handle the wedding as well as the reception. So it

is understandable why this would be such a major issue for the Giannini family and have a major impact on their livelihood.

My first thought is to save the historical bridge by choosing to retrofit it making it safe and strong enough to hold up for another 100 plus years. **(Note: [Comment 11-1 The bridge now has survived two major earthquakes--1906 and 1989) the bridge certainly must have a well made structure with it holding up after 116 years of continued use).**

Second, **[Comment 11-2** would be to keep it as a walking/cycling bridge off to the side.**]** Then, if a new bridge should need to be built, the historic bridge can still be saved, plus on-going traffic would not be interrupted while the new bridge is being constructed.

Thanking you for taking the time to read my letter of support.

Sincerely, Adrienne Zimmerman

Caltrans Response

Comment 11-1: Please refer to the response for Comment 9-1 as to how the bridge has survived past seismic events and why this does not predict how well the bridge will perform in future seismic events.

Comment 11-2: The “Hybrid” alternative has been selected to preserve the façade of the existing bridge in its present location. While this alternative does not retain the historical standing of the original bridge, it does allow the outer stone masonry walls to remain fully visible. Please see Section 2.1.5 Cultural Resources of the FED for further discussion on this topic.

Comment 12 – Barbara Voester

Original Comment

[Comment 12-1 I am writing because I have been living in Saratoga for 50 years and I think this above mentioned bridge needs to be preserved.**]** It was built in 1902, and originally was called the Longbridge because it was the LONGEST bridge in Santa Clara County!

It is a magnificent arched stone bridge built with locally quarried stones. It is a historic backdrop to Saratoga Springs, a beautiful "playground" in our hills, enjoyed by about 80,000 people each year. My 3 daughters spent time there as children and my husband and I have also been there to celebrate events from our employment in the schools. The atmosphere is so beautiful and relaxing and I think it would be a real shame to destroy this part of our cities history. It is my hope that you will do everything in your power to see that it is preserved.

Thank you so much,

Barbara Voester

Saratoga CA 95070

wildflower.barbara@gmail.com

Caltrans Response

Comment 12-1: Commenter's preference for Alternative 4: No Build has been acknowledged and enthusiasm for her community is appreciated.

Comment 13 – Saratoga Historical Foundation

Original Comment

Saratoga Historical Museum

March 24, 2018

Dear Mr. Brian Gassner and Noray-Ann Spradling:

The four options presented by Caltrans mostly support the removal or altering of Long Bridge (Saratoga Creek Bridge) as it is known locally.

Tearing down this picturesque bridge is not acceptable. This 1902 bridge is a tourist destination for the Saratoga area and removing the bridge or altering its appearance will have an impact on local revenue.

[Comment 13-1 One option not considered by CalTrans might be to keep the historic bridge and use it as a pedestrian and cyclist bridge with a second bridge built to handle heavier traffic.**]**

Long Bridge is protected under Saratoga Landmark #435. It is:

historic-built in 1902 it replaced a wooden bridge that at the time was the longest and highest bridge in Santa Clara County, hence the name "Long Bridge." The wooden bridge was replaced by this stone bridge in 1902 and still lives up to its name today with a span of 60 feet and length of 165 feet.

[Comment 13-2 the 1902 picturesque bridge was quarried from material found near the bridge site and has successfully withstood the earthquakes of 1906 and 1989**]**

part of the ambience of scenic Highway 9 (state scenic highway system since October 1979) with its towering Redwood trees and tranquil streams that wind their way through the canyon canopy of trees

next to Saratoga Springs, the location of William Campbell's sawmill in 1848 and that provided Saratoga and the area lumber for building homes. At one time sawmill workers trundled across the bridge heavily laden with loads of lumber. The men who drove the rough road would stop and water their animals under the bridge before continuing their journey. Horse and buggy traffic brought guests to nearby Saratoga Springs to escape the valley heat.

enjoyed by 80,000 plus visitors each year to the Saratoga Springs campground of which Long Bridge is a backdrop. Many weddings at Saratoga Springs use the bridge for photo opportunities- along with people picnicking and camping.

Saratoga Springs is the Bay Area's oldest, continually operating picnic facility. Family owned by five generations since 1876.

[Comment 13-3 the Giannini family (owners of Saratoga Springs campgrounds) would be financially penalized by having to close during the 3-4 years it would take to build a replacement bridge.**]**

part of a historic corridor that includes Sanborn Park; Savannah Chanelle (originally the Pourroy family) – Santa Cruz mountains appellation for wineries -one of the first in the state; Saratoga Toll Road; and is part of historic landmark #435 (Saratoga).

enjoyed by tourists following Waymarking.com and Bridgehunter.com

[Comment 13-4 The destruction or movement of the historic bridge would prevent it from becoming eligible for the National Register of Historic Places or California Register.**]** More importantly it would impact the scenic beauty of Highway 9. Long Bridge (Saratoga Creek Bridge) should be saved.

Sincerely

Annette Stransky, President

Saratoga Historical Foundation

Board of Directors: Ray Cosyn, Bill Ford, Bob Himel, Linda Hagelin, Ernie Kraule, Rina Shah, Jim Sorden, Michael Whalen

Caltrans Response

Comment 13-1: Please refer to the response to Comment 11-2 for why Caltrans is no longer considering the option to allow the existing bridge to remain standing for pedestrian and cyclist use.

Comment 13-2: Please refer to the response for Comment 9-1 as to how the bridge has survived past seismic events and why this does not predict how well the bridge will perform in future seismic events.

Comment 13-3: Caltrans will follow the guidelines set forth under the Federal Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) during the next phase of design.

Comment 13-4: The Saratoga Creek Bridge was determined eligible for the NRHP and the CRHR in the 1985 Caltrans Statewide Bridge Inventory, which received concurrence from the State Historic Preservation Officer. For this project, a Finding of Effect report was completed, which determined that the Saratoga Creek Bridge would be adversely affected by the project and would no longer be eligible for the NRHP nor the CRHR, the SHPO concurred with this finding on April 26, 2018.This information can be found in Section 2.1.5 Cultural Resources and in Appendix A: Section 4(f).

Comment 14 – Santa Clara County Parks Department

Original Comment

Dear Mr. Gassner:

The County of Santa Clara Parks and Recreation Department (County Parks Department/Department) is in receipt of the Draft Environmental Impact Report (DEIR) for the Saratoga Creek Bridge Project (Project). The Project proposes to address the California Department of Transportation (Caltrans) seismic and structural concerns, either by replacing the existing bridge with a new bridge or through retrofitting the existing bridge.

The County Parks Department is charged with providing regional parklands and trails for the enjoyment, education, and inspiration of this and future generations. The Department is also charged with the planning and implementation of *The Santa Clara County Countywide Trails Master Plan Update (Countywide Trails Plan),* an element of the Parks and Recreation Section of the County General Plan adopted by the Board of Supervisors on November 14, 1995. The *Countywide Trails Plan* identifies the Juan Bautista de Anza National Historic Trail crossing State Route 9 near the project area. A specific alignment for the trail and crossing has not been identified by property owners on both sides of State Route 9, so the County Parks Department does not support or oppose any alignment alternatives in the DEIR. However, the Department does **[Comment 14-1** object to retaining walls or other barriers that would ultimately block the proposed path of the Anza Trail.**]**

The County Parks Department offers the following additional comments:

[Comment 14-2 Please evaluate the potential impacts to Sanborn County Park visitors from the construction -related traffic delays resulting from one-way traffic across the Saratoga Creek Bridge. The proposed construction season is also the park's busiest season, when weddings, camping, and other outings occur. Creating delays could have a negative effect on park users.**]**

[Comment 14-3 Pages xxiii-xxx – Table S-1: Project Potential Impacts. Since this table only identifies the <u>permanent</u> impacts to existing and future land use, parks and recreational facilities, community character and cohesion,

emergency services, traffic, visual/aesthetics, air quality, and noise, please label the table "Project Potential Permanent Impacts." Temporary impacts to these areas during demolition and construction should be analyzed in a separate table. Note on Page 1-25, Table S-1 is referred to as "Project Potential Permanent and Temporary Impacts." Temporary impacts are expanded upon in other sections of the document; please address this labeling inconsistency.**]**

Page 2-1 & 3-34 – **[Comment 14-4** Include the Santa Clara County Countywide Trails Master Plan (1995) under "Consistency with State, Regional and Local Plans and Programs" (page 2-1) and "CEQA Significance Determinations for Transportation/Traffic" (page 3-34/35) as the Congress Springs Connector Trail, part of the Juan Bautista de Anza National Historic Trail (bicycle route), is a planned on-road cycling route that utilizes State Route – 9 from Skyline Boulevard/Highway 35 to Mount Eden Road and Pierce Road.**]** **[Comment 14-5** The temporary impacts during demolition and construction to this planned trail should be analyzed as part of the DEIR.**]** **[Comment 14-6** Also, please consider striping the roadway with a wider shoulder on the north/uphill side of the bridge where bicycle traffic will be moving slower.**]**

[Comment 14-7 Page 2-2 – Rather than "a proposed trail" please label the trail as the Congress Springs Connector Trail.**]**

[Comment 14-8 Page 2-3 – Air Quality – The last two sentences ("The air quality pollutant emissions as a result of the project's construction activities are temporary and would not change existing levels. There are no anticipated air quality impacts that would result from the proposed project.") should be incorporated into the Noise section also. For instance, "…Increases in noise as a result of the project's construction activities are temporary and would not change existing levels."**]**

[Comment 14-9 Page 2-60 – Environmental Consequences: The construction window is mid-June to mid-Oct, due to proximity to creek and predicted rainy months. The site will be fenced and secured when work stops for the season. Monitoring of the site, especially after rain events, is imperative to verify the continued functionality of silt fences and other water quality control measures. Please include a description of how, where, and

when this monitoring will occur.**]**

At the February 28, 2018, public meeting, a single arch bridge was presented on display boards and verbalized by Caltrans representatives. This design is not included in the DEIR among the double arch and single span design alternatives. **[Comment 14-10** If this design alternative is being considered, it should be evaluated for its impacts to the creek, construction schedule, visual impacts, and other factors.**]**

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Saratoga Creek Bridge Project. The County Parks Department considers this an opportunity for Caltrans and County Parks staff to continue our collaborative efforts to provide efficient transportation and safe recreation to the citizens of Santa Clara County. If you have any questions regarding these comments, please feel free to contact me at (408) 355-2362 or via email at Michael.Hettenhausen@prk.sccgov.org.

Sincerely,

Michael Hettenhausen,

Associate Planner

Caltrans Response

Comment 14-1: Commenter's objection to the construction retaining walls, or other barriers, that may block the proposed path of the Anza Trail has been acknowledged.

Comment 14-2: Traffic delays are anticipated, related to the queue that develops from one-way traffic signaling. Traffic signals will likely be cycled at 15 minute intervals for each direction. Additional delays may occur if the anticipated queue is unable to clear during the signal cycle.

Comment 14-3: Table S-1 has been updated to make it clearer which impacts are temporary and which ones are permanent. The name for the table on page 1-25 has been changed from "Project Potential Permanent and Temporary Impacts" to "Project Potential Impacts" for consistency.

Comment 14-4: The Santa Clara County Countywide Trails Mater Plan Update (1995) has been included in the list of adopted plans that the project is consistent with on pages 2-1 and 3-42

Comment 14-5: An analysis of potential impacts to bicyclists currently using the section of SR-9 that is proposed for Congress Springs Connector Trail and Juan Bautista de Anza National Historic Trail bicycle route has been included in Section 3.2.16 Transportation/Traffic under **a, f) No Impact**.

Comment 14-6: The shoulders will be two feet wide on one side of the bridge and four feet on the other for the preferred build alternative. Shoulders have been widened to the maximum extent feasible. "Share the Road" signage may be considered to alert drivers.

Comment 14-7: Page 2-2 has been changed so that "The design of the new bridge will take into consideration a proposed trail that is part of the Strategic Plan for the Santa Clara County Parks and Recreation System." now reads, "The design of the new bridge will take into consideration the Congress Springs Connector Trail that is part of the Strategic Plan for the Santa Clara County Parks and Recreation System."

Comment 14-8: The Noise section on page 2-3 was changed for clarification so that, "This analysis showed that there would be no anticipated noise impacts as a result of this project." now reads, "This analysis showed that the noise levels that would result from the project's construction activities are temporary and would not change existing levels. There are no anticipated permanent noise impacts that would result from any of the propose project alternatives."

Comment 14-9: Visual observations will be conducted within 2 business days before the predicted storm and every 24 hours during the storm event and within 2 business days after qualifying rain event.

The qualifying rain is defined as storm that produce at least 0.5 inch of precipitation with a 48-hour or greater period between rain events.

Three run-off samples must be collected at all locations where the stormwater is discharged off the job site for each qualifying rain event for project with erosion risk assessments of level 2 or 3.

Comment 14-10: The single arch alternative is currently not being considered due to the length of construction and associated environmental impacts.

Comment 15 – Santa Clara County Roads and Airport Department

Original Comment

Dear Ms. Spradling,

The County of Santa Clara Roads and Airports Department appreciates the opportunity to review to the draft environmental assessment/environmental impact report. We are submitting the following comments for your consideration:

[Comment 15-1 During construction, the project must keep access open to all users including but not limited to private residences, park users, Sam Trail and Trailhead users accessing the trail from Sanborn Road, public and private event venue users.**]**

[Comment 15-2 During construction, County Roads and Airports will not allow equipment storage, project vehicle parking, crew/employee parking on Sanborn Road. Blocking trailhead access on Sanborn Road is prohibited.**]**

[Comment 15-3 Construction will require an Encroachment Permit from the Department of Roads and Airports. Approval of such permit will include review and approval of the traffic management plan; review and approval of 35/65/95% design of the proposed retaining wall and facilities on Sanborn Road and upon approval, execution of a maintenance indemnification agreement (MIA) and facility maintenance agreement (FMA).On Pg. 1-29 (Table 1-3), please add the County Roads and Airports Department and Encroachment Permit with MIA and FMA.**]**

[Comment 15-4 During and after construction, all project activities regarding stormwater and drainage must comply with the California Water Board Construction General Permit Order 2009-0009-DWQ and Municipal Regional Stormwater Permit Order No. R2-2015-0049 in addition to meeting compliance with the Santa Clara County Drainage Manual available at:

(https://www.sccgov.org/sites/dpd/DocsForms/Documents/Drainage Manual Final.pdf).

[Comment 15-5 Any public notification about lane closures and work windows must include changeable message signs posted thirty days prior, in addition to written and electronic forms of public notification to the surrounding residents, County Parks and Roads & Airports Departments, and City of Saratoga.**]**

Thank you for the opportunity to comment on the Notice of Preparation of DEIR. If you have any questions about these comments, please contact me at (408) 573-2482 or ellen.talbo@rda.sccgov.org.

Sincerely,

Ellen Talbo

County Transportation Planner

cc: Rob Eastwood, Department of Planning and Development Robb Courtney, Department of Parks and Recreation

Caltrans Response

Comment 15-1: Access will be maintained and/or coordinated with the general public, agencies with jurisdiction, and property owners during construction.

Comment 15-2: Sanborn Road will not be used to store equipment or to be used as parking for project personnel. There may be a need for a one-lane closure with one-way traffic control used during the closure. Caltrans will coordinate with the Santa Clara County Roads and Airports Department for any necessary lane closures.

Comment 15-3: The requirements for encroachment permits will be addressed in the next phase of project design and will be led by the Caltrans

Division of Right of Way. Any requirements for encroachment permits will be handled by Right of Way and will follow the standard procedures to procure the necessary agreements. The environmental document only lists environmental permits and agreements that require the environmental document for their approval or that contain conditions that protect environmental resources. It does not list property agreements.

Comment 15-4: Caltrans will comply with the water quality permits that are listed in the Regulatory sub-section of Section 2.2.1 Water Quality and Storm Water Runoff. A 401 permit is also anticipated with the San Francisco Regional Water Quality Control Board – Region 2 which will be finalized in the next phase of project design. Caltrans has its own state BMP standards that it will comply with that can be found in the 2018 Standard Specifications and the 2018 Standard Plans. These can be accessed by the public from the Caltrans website at www.dot.ca.gov or upon request.

Comment 15-5: Caltrans can provide the Santa Clara County Roads & Airports Department with notification of lane closures and work windows 30 days in advance of their implementation. However, Caltrans will follow our standard process for notifying the public, project stakeholders, interested local agencies, and adjacent property owners two weeks in advance of lane closures and work windows. This has proven to be an effective timeframe in allowing roadway users enough time to plan for the closures but not so much time that they may forget. The outreach effort will be led by the Caltrans Public Information Officer in coordination with the Caltrans Resident Engineer. Notifications can be made via post mail, email, posting on Caltrans' website, and changeable message signs located on SR-9 near the project location.

Comment 16 – Santa Clara County Department of Planning and Development

Original Comment

Mr. Gassner,

The County of Santa Clara Planning Division has reviewed the Draft Environmental Impact Report/Environmental Assessment (DEIR) prepared for the Saratoga Creek Bridge Project, and .we are submitting the following comments for your consideration.

Lack of Technical Studies Included with the EIR

The basis for the project is the seismic deficiency of the existing bridge, **[Comment 16-1** however the engineering data needed to support this conclusion was not included with the DIER. In addition, the EIR lists several cultural resources reports, including a Historic Property Survey Report and a Historic Resources Evaluation Report, with the implication that these reports were the basis for the Cultural Resources section of the DEIR, however, these technical reports were not provided with the EIR.**]** **[Comment 16-2** The County requests that these reports and evaluations be included, and the DEIR recirculated.**]**

County Regulatory Framework

[Comment 16-3 The Saratoga Bridge is eligible for listing as a County Landmark, and the County has received a request to initiate listing of the bridge as a County Landmark. If found eligible for listing, the bridge would be placed on the Heritage Resource Inventory, and if property owner consent is received, designated as a County Landmark.**]**

Deficiency in Project Alternatives

The project and all alternatives would cause significant unavoidable impacts to the historic integrity of the Saratoga Bridge. There are no alternatives in the DEIR, other than the no-project alternative, which would avoid this impact. **[Comment 16-4** The County believes this is not a reasonable range of alternatives. The DEIR does contains some

discussion of the factors Caltrans considered when determining what project alternatives to include, such as the length of construction, the cost, and the technical difficulties in preserving the integrity of the bridge. However, the discussion does not sufficiently demonstrate that any and all project alternatives that would preserve the bridge are infeasible. The County requests that the DEIR be revised to include at least one alternative, other than the no-project alternative, which would avoid this impact to the historic integrity of the bridge.]

Adequacy of Cultural Resources Impact Evaluation and Mitigation Measure

The Cultural Resources Section of the Saratoga Bridge DEIR acknowledges that the proposed project and all of the project alternatives except the no project alternative would have a significant impact to an eligible historic resource, the Saratoga Bridge, and proposes mitigation measure (AMM CULT-1) to address the identified impact. However, **[Comment 16-5** the mitigation measure proposed by Caltrans is incomplete and inadequate. The mitigation measures states that consultation with SHPO is in progress and further states that specific mitigation measures will be proposed when a Final EIR is prepared.] **[Comment 16-6** The only specifics contained in the mitigation measure are photo documentation and installation of a memorial plaque. This mitigation measure is inadequate, lacks sufficient information, and fails to adequately or meaningfully address the significant impact to Cultural Resources that the loss of the Saratoga Bridge represents.] **[Comment 16-7** The County requests that specific mitigation be proposed, and the DEIR recirculated so that the mitigation measure can be evaluated and commented upon.]

If you have any questions about these comments, please contact Robert Salisbury, Senior Planner at

(408) 299-5785 / Robert.salisbury@pln.sccgov.org. Attached to this letter you will also find comment letters from the County Department of Roads & Airports and the County Department of Parks & Recreation. Any questions regarding those letters should be directed to the identified Department representative.

Since

Rob Eastwood, Planning Division Manager

Santa Clara County Department of Planning & Development

CC:

Santa Clara County Board
of Supervisors

Sylvia Gallegos, Deputy
County Executive

Ellen Talbo, Department of
Roads & Airports

Michael Hettenhausen, Department of Parks & Recreation

Caltrans Response

Comment 16-1: It is Caltrans standard policy not to include full versions of the technical reports in the environmental document. This is in accordance with Section 15148 of CEQA which states, "Preparation of EIRs is dependent upon information from many sources, including engineering project reports and many scientific documents relating to environmental features. These documents should be cited but not included in the EIR."

Please visit the California Department of Transportation's Standard Environmental Reference webpage at www.dot.ca.gov/ser/ to review Caltrans' standard guidelines for preparing environmental documents.

Comment 16-2: Santa Clara County Planning Department was sent a copy of the HRER and the FOE that were prepared for this project to review as a part of Caltrans compliance with the Section 106 of the National Historic Preservation Act. The HRER was sent to Commissioner April Halberstadt of the Santa Clara County Historical Heritage Commission on May 17, 2017 via email. Robert Salisbury, a planner with Santa Clara County's Planning and Development Department, was copied on the email.

Caltrans will not re-circulate the Draft EIR/EA because the agency's standards and all CEQA guidelines were followed during the preparation of the environmental document.

Comment 16-3: Caltrans considers the Saratoga Creek Bridge a historical resource for the purposes of CEQA, and as such, is afforded the same consideration as if the bridge were listed on the County's Heritage Resource Inventory.

Comment 16-4: The Department is required to consider a reasonable range of alternatives under both NEPA and CEQA. The guidance for developing alternatives for transportation projects under NEPA can be found in the SAFETEA-LU Environmental Review Process Final Guidance paper (2006). The requirements for consideration of alternatives under CEQA can be found in 40 CFR 1500-1508.

In addition to this, because the Saratoga Creek Bridge is eligible for the National Register of Historic Places, it is also protected under Section 4(f) of the Department of Transportation Act of 1966 which requires additional considerations for project alternatives that must be analyzed to show that all possible considerations are taken for avoiding an adverse effect finding on a historic property. The requirements for the consideration of alternatives under Section 4(f) can be found in the Programmatic Bridge Agreement requirements of the Section 4(f) Policy Paper (Office of Planning, Environment and Realty Project Development and Environmental Review, 2012).

There has been a total of eleven build alternatives, in addition to the no build alternative, considered throughout the development of this project. All alternatives that were studied in an attempt to preserve the bridge were deemed infeasible due to constructability. Therefore, none of the build alternatives had the potential to allow the existing bridge to retain its historical eligibility. A list of these alternatives, their description, and the reasons for withdrawing them from further consideration can be found in Section 1.6.2 Alternatives Considered but Withdrawn from Further Consideration, as well as in Appendix A Section 4(f) of the environmental document.

Comment 16-5: Mitigation measures are identified after a selected alternative has been chosen, which occurred after the circulation of the DED. Caltrans submitted the Finding of Adverse Effect (FAE) Report to the SHPO and simultaneously to participating stakeholder groups/agencies to initiate consultation regarding mitigation measures and provisions within the Memorandum of Agreement (MOA). A MOA was developed with participating stakeholder groups/agencies.

Comment 16-6: The use of a plaque was not identified as a mitigation measure in the DED. The mitigation measures include a Historic American

Engineering Record (HAER) document, which is required under Section 4(f) of the Department of Transportation Act. Further mitigation measures were developed in consultation with participating stakeholder groups/agencies and have been included in the final environmental document.

Comment 16-7: Caltrans did not circulate the Draft EIR/EA with an agreed upon list of mitigation measures with SHPO because consultation with SHPO could not be completed without a preferred project alternative. The preferred project alternative was not chosen prior to the circulation and comment period of the Draft EIR/EA because the project development team wanted to gather input from the public and partner agencies on the proposed project alternatives prior to settling on a preferred. Caltrans will include the Santa Clara County Department of Planning and Development on its list of interested parties in coordinating the development of mitigation measures for impacts to the historic Saratoga Creek Bridge after the preferred alternative is selected.

The circulation of the Draft EIR/EA prior to an agreed upon list of mitigation measures is allowed under the Department's standard guidelines for preparing a Draft EIR/EA. These guidelines are available for review on the California Department of Transportation's Standard Environmental Reference webpage at www.dot.ca.gov/ser/. Caltrans will not re-circulate the Draft EIR/EA for lack of agreed upon mitigation measures with SHPO because the agency's standards were followed for preparing the environmental document.

Comment 17 – Ken Mollenauer

Original Comment

To Whom it may concern,

I attended the public hearing on February 28, 2018 and am now addressing some comments and concerns with the environmental impacts of the Saratoga Creek Bridge project. We are the home located closest the existing bridge. Our houses - two houses, at 22900 Big Basin Way, are located within approximately 60 and 100 feet from Highway 9 and approximately 150 feet from the bridge.

We have five main concerns relating to the three proposed bridge alternatives:

1) Sound/noise increase due to widening the road closer to existing homes.

2) Safety due to increases in speed through the area due to shallower approach angle and wider road

3) Right of Way setback changes

4) Driveway access during and after the project.

The first concern, sound/noise increase is mentioned as non-significant in the draft Environmental report. As a home owner and resident living here for 20 years I don't believe this to be true. We have had ongoing sound issues with the Saratoga Springs "picnic grounds" at 22801 Big Basin Way (now an "Events Center" that has increased in size and scope, with no permits, from a picnic area for up to 400 people now to day and night events for up to 4000 people at a time) plus increased traffic noise as Highway 9 has become more popular for recreational drivers and street racing. Saratoga Springs has in the past 20 years and currently regularly violates Santa Clara county ordinance for noise.

As you may know sound energy can be additive. For example when we moved here we measured sound levels of 65 dBA up to 95dBA (screaming loud live bands) at our property line emanating from Saratoga Springs. On the weekends, sound levels from traffic directly and from car and motorcycle noise bouncing off the bridge walls can reach 90dBA to 100dBA, with a thousand vehicles per day or more, in each direction, passing our home. **[Comment 17-1** My understanding is that sound levels for highways near residents measured 50 feet from the center of the road should not exceed 72dBA. When calculated at higher sound levels, the increase in noise at our property line can increase 8%. These are the sound levels now. If the highway is moved closer and widened as proposed in all of your proposed plans, the sound levels will increase even more than what is already not acceptable, legal.

Some form of noise abatement, such as sound walls and bridge walls should considered in the bridge project design.**]**

The second concern is related to safety and speed on Highway 9 above the Saratoga Creek bridge. We observe that a significant number of the drivers attempt racing speeds entering and existing the bridge. Currently maximum speeds are somewhat limited by the sharp turn entering the bridge when traveling in the westbound direction. We also realize the current entry curve sharpness is not up to current standards and also realize that the speed limit is 30mph. However, by the time some drivers are passing the neighbor's driveway they are hitting speeds over 80mph. The only thing limiting the already illegal speeds are the existing physical limitations of the road and bridge.

The Caltrans project further up Highway 9 undertaken a few years ago to make a notorious long sharp blind corner “safer” with a retaining wall and much wider shoulder has mostly served only to increase the speeds, including head-on combined speeds, of the drivers executing this corner. Our neighbor who lives at this corner attends to just as many serious accidents as before, including more incidents involving vehicles plunging off the cliff in the next corner downhill, possibly because of the ability to take the redesigned corner even faster.

[Comment 17-2 Please consider ways of controlling excessive speeds - other than with speed limit signs, which do NOTHING - when designing the the bridge and expanding the roadway.**]**

The third comment is a question related to current and future right of way easements. Our understanding is that currently there is a 30 foot right away corridor measured from the center of the highway. **[Comment 17-3** When the roadbed is widened to 40 feet plus shoulders, is the corridor going to be expanded in width?**]**

The forth comment is related to driveway access during and after construction. **[Comment 17-4** We need to be able to enter and exit the driveway with a 30 foot trailer and pickup truck during construction and completion.**]** During the last major work on the bridge DOT was very accommodating during construction and we thank you for that!

Finally, we would like to talk with a senior staff member in person about a couple of issues related to your proposed budget. We believe we can help you avoid a couple of very expensive unforeseen costs.

Thank you.

Ken Mollenauer

E-mail: kenmo@me.com

Phone: 408-741-5749

Shelly Monfort

E-mail: smonfort@mac.com

Phone: 408-741-1035

Caltrans Response

Comment 17-1: The Caltrans Traffic Noise Analysis Protocol and the Code of Federal Regulations 23 CFR 772, were used to assess the project's potential to increase the ambient noise level in the surrounding area. This assessment considers Type I projects as being those projects where ambient noise levels are expected to increase and consideration of noise abatement strategies are required. The “Hybrid” Alternative that was chosen as the preferred alternative does not increase the capacity of SR-9 and maintains the existing vertical and horizontal alignments. Under these circumstances, consideration of noise abatement was not necessary because the project does not meet the criteria of a Type I project.

Due to major activities such as pile driving, bridge demolition, etc. occurring during this project, a construction noise study has been prepared and referenced in Section 2.5 Construction Noise Impacts. Construction noise impacts to nearby sensitive residents are to be addressed in the Caltrans Standard Specifications, Section 14-8.02.”

Comment 17-2: Caltrans does not anticipate a significant change in speed is due to the slight approach re-alignment to the bridge.

Comment 17-3: Caltrans does not intend to expand the width of the current corridor other than where it is needed. Additional width, if needed, will be on a case-by-case basis.

Comment 17-4: This driveway shall remain open and accessible even though there might be brief (less than 8 hours) periodic closures during construction. Communication between construction staff and the residents will be maintained to alert of upcoming closures and to mitigate potential conflicts.

Comment 18 – California Department of Fish and Wildlife

Original Comment

The California Department of Fish and Wildlife (CDFW) has reviewed the Draft Environmental Impact Report (DEIR) for the proposed Saratoga Creek Bridge Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[4] Pursuant to our jurisdiction, CDFW is submitting comments on the DEIR as a means to inform the California Department of Transportation as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

CDFW ROLE

CDFW is a Trustee Agency with responsibility under CEQA §15386 for commenting on projects that could impact fish, plant and wildlife resources. CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as the California Endangered Species Act (CESA) Permit, the Native Plant Protection Act, the Lake and Streambed Alteration Agreement (LSAA) and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources.

PROJECT LOCATION AND DESCRIPTION SUMMARY

The proposed Project is located along State Route 9 (SR-9) between Post-Mile (PM) 4.7 and PM 4.9 over Saratoga Creek on the Saratoga Creek Bridge outside the City of Saratoga, Santa Clara County, in the State of California. The Project includes four alternatives to address the Saratoga Creek bridge seismic and structural concerns, either by replacing the existing bridge with a new bridge or through retrofitting the existing bridge. The alternatives are as follows: Alternative 1; retrofit the existing bridge along the current alignment, Alternative 2; replace the bridge south

[4] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

of the existing alignment, Alternative 3; replace bridge north of existing alignment and Alternative 4; no build.

COMMENTS AND RECOMMENDATIONS PROJECT ALTERNATIVES AND DESIGN

[Comment 18-1 CDFW recommends adoptions of Build Alternative 3 as it appears to be the most environmentally friendly alternative with the lowest permanent impacts of 1.44 acres and second lowest temporary impacts of 0.14 acres within the Project footprint.**] [Comment 18-2** Additionally, CDFW recommends any newly designed bridge clear-spans Saratoga Creek including the bed, bank, channel and floodplain to allow natural sediment processes to occur, provide adequate open space for wildlife connectivity, and allow for fish passage through the Saratoga Creek system.**]**

CALIFORNIA ENDANGERED SPECIES ACT (CESA)

CDFW believes Foothill yellow-legged frog (FYLF) presence at the Project site is likely due to the varied canopy cover of the site, in-stream rocks and cobble, as well as the potential for fast- moving water to occur. Table 2.3.6 of the DEIR indicates there is a potential for FYLF to occur and page 3-11 indicates that minimal adverse, direct and indirect impacts are anticipated if the

species is present. **[Comment 18-3** Beginning July 7, 2017, projects within FYLF habitat may need an Incidental Take Permit (ITP) if take cannot be avoided (Fish and Game Code § 2081, subd. (b); Cal. Code Regs., tit. 14, §§ 783.2-783.8). An ITP will require project- and species-specific avoidance and, minimization measure, as well as full mitigation for project related impacts, consistent with CESA Issuance of an ITP is subject to CEQA documentation. If the Project will impact CESA- listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.**]**

CDFW recommends a **[Comment 18-4** discussion section of

FYLF similar to the one provide for California red- legged frog *(Rana draytoni1)* in Section 2.3.5 be incorporated into the EIR. The discussion should include a review of habitat requirements for the species, a discussion of potential suitable habitat found on-site for the species, a discussion/inclusion of protocol level surveys (provided below) and other applicable avoidance and minimization measures to reduce impacts below a level of significant as required by CEQA. Additionally, if take of FYLF will occur, an ITP is required in order to legally take FYLF and compensatory measures to fully mitigate impacts to FYLF should be included in the EIR.**]**

CDFW **[Comment 18-5** recommends the following surveys for FYLF be incorporated into the EIR and no Project activities begin until FYLF surveys have been completed using a method approved by CDFW. Focused surveys should be conducted a minimum of one year prior to the initiation of construction during the FYLF breeding season (March through August) and shall occur weekly through the mating season**][Comment 18-6** and be used to identify possible lek sites for protection during construction, or restoration after Project completion if avoidance is not feasible.**]** Survey methodology shall target all life stages and shall include a wet and dry stream surveys. Surveys within the Project area shall include searching; cavities under rocks, within vegetation such as sedges and other clumped vegetation, and under undercut banks. Surveys should be conducted at different times of day and under variable weather conditions if possible. The surveys shall focus on the Project area, upland habitat and area upstream, downstream and adjacent to the Project. Survey results shall be provided to CDFW prior to the initiation of construction and if FYLF presence is confirmed, CDFW shall be notified immediately and Project activities shall not occur without a valid ITP.

<u>Special-Status Plant Species</u>

[Comment 18-7 The survey protocols for plant for special-status plant species noted on page 2-105 of the DEIR

should incorporate the protocol survey measures recommended by CDFW for surveying and evaluating impacts to rare plants available at: https://www.wildlife.ca.gov/Conservation/Plants.] The protocols recommend surveys are to be conducted during the blooming period for all sensitive plant species potentially occurring within the Project area and require the identification of reference populations for a two-year period prior to construction. Please refer to CDFW protocols for surveying and evaluating impacts to rare plants for further guidance.

MIGRATORY AND NESTING BIRDS

[Comment 18-8 Nesting Bird Surveys on Page 2-116 of the DEIR Section 2.3.4 for Animal Species should be updated to include additional avoidance and minimization measures that incorporates language into the DEIR for cavity nesting bird species.] The Project site and surrounding habitat have the potential to provide suitable trees for cavity nesting birds in addition to the more obvious canopy nest builders. Guidance on survey protocol for cavity nesting species should be incorporated from the following reference material; *A Field Protocol to Monitor Cavity Nesting Birds, U.S.D.A/U.S. Forest Service, Dudley & Saab, 2003.* **[Comment 18-9** The appropriate mitigation measures should also be incorporated in to the DEIR such as environmentally sensitive area avoidance, avoidance of tree removal, installation of bird boxes that are appropriately sized and replanting of trees that provide suitable cavity nesting. Protocols include incorporation of transect surveys, call-back surveys, cavity location and temporary cavity blocking.]

GENERAL AVOIDANCE AND MINIMIZATION MEASURES

CDFW also recommends the following avoidance and minimization measures be included in a revised DEIR:

[Comment 18-10 Open Trenches: Any open trenches, pits, or holes with a depth larger than one-foot shall be covered at the conclusion of work each day with a hard, non-heat

conductive material (i.e. plywood). No netting, canvas, or material capable of trapping or ensnaring wildlife shall be used to cover open trenches. If use of a hard cover is not feasible, multiple wildlife escape ramps shall be installed, constructed of wood or installed as an earthen slope in each open trench, hole, or pit that is capable of allowing large (i.e. deer) and small (i.e. snakes) from escaping on their own accord. Prior to the initiation of construction each day and prior to the covering of the trench at the conclusion of work each day, a Qualified Biologist or on-site personnel shall inspect the open trench, pit, or hole for wildlife. If wildlife is discovered, it shall be allowed to leave on its own accord.**]**

[Comment 18-11 Open Pipes Restriction: All pipes, culverts, or similar structures that are stored at the construction vertically or horizontally on-site for one or more overnight periods will be securely capped on both ends prior to storage and thoroughly inspected for wildlife prior to implementation at the Project site by a Qualified Biologist or Biological Monitor.**]**

[Comment 18-12 Fence and Sign Post Restriction: Any fencing posts or signs installed temporarily or permanently throughout the course of the Project shall have the top three post holes covered or filled with screws or bolts to prevent the entrapment of wildlife, specifically birds of prey. The Qualified Biologist or Biological Monitor shall be responsible for ensuring compliance with this measure throughout the course of the Project and shall inspect each post.**]**

CONCLUSION

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California's fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

Questions regarding this letter or further coordination should be directed to Mr. Robert Stanle, Senior Environmental Scientist (Specialist), at (707) 944-5529 or

Robert.Stanley@wildlife.ca.gov; or Mr. Craig Weightman, Environmental Program Manager at (707) 944-5577 or Craig.Weightman@wildlife.ca.gov.

cc: State Clearinghouse

Caltrans Response

Comment 18-1: Commenter's preference for Alternative 3: Realign Roadway North has been acknowledged.

Comment 18-2: A simple span bridge was considered as an option for the ABC Alternative, though the type of bridge would not have been selected until the next project design phase. However, the "Hybrid" Alternative was selected as the preferred alternative and it is not possible to adapt this alternative to a clear span design. The rationale for choosing this alternative can be found in Section 1.6.1 Identification of the Preferred Alternative.

Comment 18-3: It was determined that there is low potential for the foothill yellow-legged frog (FYLF) to occur within the project area. The Biological Study Area (BSA) appears to fall within the historic range of this species, but the species has not been detected within the watershed in recent years and there were no foothill yellow-legged frogs observed during the habitat assessment for the BSA. Therefore no impacts to the species are currently anticipated. Caltrans will determine if there is a need for an ITP and potential mitigation for FYLF in the next phase of project design. Caltrans will conduct protocol level surveys for this species at least one year prior to the start of construction, and will consult with CDFW if there is evidence the species occurs in the area and will be impacted by the project.

Comment 18-4: Comment Noted. The discussion of impacts to FYLF has been moved to Section 2.3.5 Threatened and Endangered Species and has be expanded upon. FYLF protocol surveys will be completed during the next phase of project development.

Comment 18-5: Comment Noted. FYLF protocol level surveys will be completed during the next phase of project development and during construction, as outlined in the permits obtained for the project.

Comment 18-6: Comment Noted. FYLF protocol level surveys will be completed during the next phase of project development and, if present within the biological study area, potential lek sites will be identified.

Comment 18-7: The protocol guidelines that were used for the rare plant surveys have been included in Section 2.3.3 Plant Species – Affected Environment.

Comment 18-8: Protocols to address cavity nesting birds are a standard project feature that is part of Caltrans' standards for following the Migratory Bird Treaty Act. These protocols will be included in preconstruction surveys and will be provided to the appropriate regulatory agencies for review prior to construction.

Comment 18-9: The protocols for nesting bird surveys are considered a project feature. These are addressed in Chapter 1, Section 1.5 Project Alternatives under Preconstruction Surveys and again in further detail in Chapter 2, Section 2.3.4 Animal Species.

Comment 18-10: A paragraph describing Caltrans' standard project feature measures for avoiding accidental entrapment of animals has been added to the end of Section 1.5.1 Common Design Features of All Build Alternatives.

Comment 18-11: Language on open trenches has been included in the response to Comment 18-0.

Comment 18-12: A paragraph describing Caltrans' standard project feature measure for fencing and sign posts has been added to the end of Section 1.5.1 Common Design Features of All Build Alternatives.

Comment 19 – John Mallory

Original Comment

Ray,

[Comment 19-1 I support you on saving this bridge.**]** Jack Mallory, 50 year resident of Saratoga.....John Mallory

In a message dated 3/27/2018 10:05:59 PM Pacific Standard Time, raycosyn@gmail.com writes:

Help save the bridge. We have until the 29th.

---------- Forwarded message ---------

From: **Saratoga Creek Bridge@DOT** <SaratogaCreekBridge@dot.ca.gov>
Date: Tue, Mar 27, 2018 at 4:45 PM
Subject: RE: Long Bridge
To: Ray Cosyn <raycosyn@gmail.com>, "Saratoga Creek Bridge@DOT" <SaratogaCreekBridge@dot.ca.gov>

Dear Mr. Cosyn,

Thank you for your comment on the Saratoga Creek Bridge Project's Draft Environmental Impact Report/Environmental Assessment (EIR/EA). Your comment will become part of the public record for this document and will be included, with a response, in the finalized version of the EIR/EA. The Saratoga Creek Bridge Project Development Team will take all public comments into consideration when determining the preferred alternative for this project at the end of the public comment period on March 29, 2018. You will receive a notice of the availability of the finalized document once it is made publicly available. The Department is planning to finalize the EIR/EA by the summer of 2018.

Sincerely,

Saratoga Creek Bridge Project Development Team

From: Ray Cosyn [mailto:raycosyn@gmail.com]
Sent: Friday, March 23, 2018 11:55 AM
To: Saratoga Creek Bridge@DOT <SaratogaCreekBridge@dot.ca.gov>
Subject: Long Bridge

I am writing to ask you not to tear down the Long Bridge. It has been in place since 1902 and as a result has withstood 2 major earthquakes and is doing quite well for a bridge which is 115 years old. It is made of rock and cement much of it quarried in the local areas. As a cyclist, one who has ridden the bridge for a number of years, I am asking that you consider alternatives to tearing down this key piece of Saratoga history.

--

Ray Cosyn

--

Ray Cosyn

Caltrans Response

Comment 19-1: Commenter's preference for Alternative 4: No Build has been acknowledged.

Comment 20 – Robert Himel

Original Comment

I am writing as a long time resident of Saratoga and Vice President of the Saratoga Historical Foundation asking you to **[Comment 20-1** not tear down this historic and beautiful bridge.**]** **[Comment 20-2** The bridge is made of concrete and stone surviving two major earthquakes and will last another 100 years if left alone.**]** Surely **[Comment 20-3** the State can find other more qualified projects to spend money on.**]** Please leave our historic bridge alone.

Robert Himel

Caltrans Response

Comment 20-1: Commenter's preference for Alternative 4: No Build has been acknowledged.

Comment 20-2: Please see the response to Comment 9-1 for an explanation on how the bridge has withstood seismic events and why that does not imply that it will withstand future seismic events.

Comment 20-3: Please see the response to comment 4-4 for why the work proposed for this bridge qualifies as a project.

Comment 21 – Fletch & Anita Parsons

Original Comment

Attn: Noray-Ann Spradling

Thank you for working so hard to keep Hwy 9 safe. I appreciate all Caltrans is doing. I am writing to voice a concern about the length of time the project will require one-way traffic control and the associated 24-7 traffic signals.

It appears this project could extend three to four years, with one way traffic control **[Comment 21-1** required for at least half of that time and probably more.**]** The Draft EIR/EA states that the signals will delay trips through the work zone by 5-minutes. The implication is that five minutes is insignificant. It's true, five minutes isn't much. But five minutes each way for area residents adds up to significant time when projected over the project's several year duration. For example, a resident who comes and goes twice a day from their home could sit for twenty minutes a day. Over just a single year, that adds up to over 120 hours sitting at a traffic signal per year of a multi-year project. That is significant.

[Comment 21-2 There must be a way to provide more efficient traffic control over this work area. Even the most congested intersections in the county only have a two minute wait. I ask that Caltrans consider providing a smarter controller with video detection and pedestrian push buttons for bicycles to allow more efficient operation of the work zone.**]** A five minute wait is excessive.

I also want to point out that Sanborn Road has been closed to all traffic for eight hours a day, six days a week for the past four months. And Hwy 9 had one way traffic control at several projects lasting nearly a year each. While we all appreciate that repair work is needed, and really appreciate that Caltrans and the County are performing the work, we are getting weary of the restrictions and are hopeful that a cost effective solution is available to reduce the wait times for this project.

Thank you for your consideration.

Sincerely,

Fletch and Anita Parsons

16380 Sanborn Road

Saratoga, CA 95070

Caltrans Response

Comment 21-1: Please refer to comment 16-4.

Comment 21-2: The project development team has considered other traffic handling methods, and will continue to consider alternative methods as the project design is further refined. However, the currently proposed methods have the fewest impacts particularly with regard to the wait-time and best management practices.

Comment 22 – Bill Peck

Original Comment

Dear Mr. Gassner and Noray-Ann Spradling,

California Department of Transportation:

I write on behalf of my entire family: my father (now deceased), Willys Peck, one of the Founders of the City of Saratoga and later, the Saratoga Historical Foundation; my mother, Betty Peck, community educator, author, and leader in Saratoga for over 50 years, now 96 years old; my sister Ann Peck-Rainville, teacher and author, currently residing at the family home on Saratoga Avenue which leads into Big Basin Way and directly onto Highway 9; and myself, teacher, actor, and poet, actively involved in Saratoga civic life. My parents have just been honored by the City with bronze statues of them as a couple, placed permanently in Blaney Plaza, the Town Square.

Deeply concerned about the proposed loss of Longbridge as a symbol of the unique character of the City, I first will address it **historically**. An enduring emblem of Saratoga's rich heritage, it also represents Saratoga in the earliest of times. This is the site where in the late 1840's, newly arrived immigrant William Campbell built his sawmill, one of the first in the Santa Clara Valley of Heart's Delight and thus instrumental in the construction of both City and County Heritage Homes. Longbridge also happens to be the oldest historical site in our city and boldly represents its cultural heritage. Part of the historical appeal of Saratoga Springs, owned by Bill Giannini, Longbridge forms a powerful, pleasing backdrop to the unique outdoor facility still serving the community in capacities including a regular meeting place of civic organizations and a relaxing retreat from the hectic pace of Silicon Valley. Thus, replacing Longbridge would damage the beauty and culture of the City of Saratoga; and **[Comment 22-1** other alternatives must be explored.**]**

[Comment 22-2 The loss of this invaluable landmark would also impact our City **economically**.**]** Tourists from all over the world enjoy visiting Saratoga

and its quaint little Village. One of the sites invariably visited is Saratoga Springs with its distinctive charms. Not only will losing Longbridge basically destroy Saratoga Springs but severely impact the Village and its economy. Nothing nicer exists than visiting the foothills and following it up with shopping or dining in the quaint downtown Village with 4-Star Restaurants. Thus, sales tax and business income will be reduced considerably for the City during the extensive time a new bridge is under construction; it will also close traffic up and down from the mountains. Under the category of "costs" for the brand new bridge, the loss of income for both the Village and Mr. Giannini should be considered, not just the hard costs of labor and material for the bridge itself. Truly, such extensive construction may well mean not only the loss of the bridge but Saratoga Springs as well as very possibly a number of businesses on Big Basin Way.

A final concern which may not have have been considered is one of **safety**. Longbridge over the years has generally acted as a deterrent of speeding; drivers see it and KNOW they must slow down. **[Comment 22-3** By building a sleek, modern bridge over the creek, this safety valve will be eliminated, and drivers may continue at often the high speed they are driving.**]** Rather to insure seismic safety which we too recognize as vital since we endured the Loma Prieta Earthquake in 1989, we, the Peck family, who has resided in Saratoga for four generations, stronglrecommend that you **[Comment 22-4** meet these requirements by re-enforcing the present structure rather than ripping it out and building a brand new bridge.**]**

Sincerely,

Bill Peck

14275 Saratoga Avenue

Saratoga, CA 95070

(408) 306-1171

bwillysjr@aol.com

Caltrans Response

Comment 22-1: The Department is required to consider a reasonable range of alternatives under both NEPA and CEQA. The guidance for developing alternatives for transportation projects under NEPA can be found in the SAFETEA-LU Environmental Review Process Final Guidance paper (2006). The requirements for consideration of alternatives under CEQA can be found in 40 CFR 1500-1508.

In addition to this, because the Saratoga Creek Bridge is eligible for the National Register of Historic Places, it is also protected under Section 4(f) of the Department of Transportation Act of 1966 which requires additional considerations for project alternatives that must be analyzed to show that all possible considerations are taken for avoiding an adverse effect finding on a historic property. The requirements for the consideration of alternatives under Section 4(f) can be found in the Programmatic Bridge Agreement requirements of the Section 4(f) Policy Paper (Office of Planning, Environment and Realty Project Development and Environmental Review, 2012)

There has been a total of nine build alternatives, in addition to the no build alternative, considered throughout the development of this project. A list of these alternatives, their description, and the reasons for withdrawing some of them from further consideration can be found in Section 1.6.2 Alternatives Considered but Withdrawn from Further Consideration and in Appendix A. Section 4(f) of this environmental document.

Comment 22-2: Caltrans will follow the guidelines set forth under the Federal Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act).

Comment 22-3: The posted speed limit is not anticipated to change. The realignment at the bridge approach will not be changing in such a way as to allow faster driving speeds.

Comment 22-4: The development of project alternatives and the process for adopting them or withdrawing them from consideration in the environmental document is an iterative process that the project development team goes through. Engineering feasibility; public safety; protecting natural, cultural, and community resources in the area; the values of stakeholders and participating agencies; and the reality of fiscal constraints all vie for a place at the table in the project development team's decision making. The very makeup of the project development team reflects the need to take these things into consideration. The team is made up of civil engineers, structural engineers, historians, biologists, archaeologists, landscape architects, hydrologists, seismic engineers, geologists, paleontologists, environmental planners, traffic

engineers, transportation planners, and lead by a project manager. In addition to this, the team can access additional specialists, such as construction engineers and traffic operation engineers, to advise on particularly difficult issues that the normal project development team doesn't specialize in.

Together, this group offers their specialized analysis on the type and severity of impacts that the individual project alternatives may have on the above-mentioned areas of concern. From there the team works together on weighing the values of the resources with the severity of impacts within the realm of what solutions are feasible from an engineer and fiscal standpoint. There are times when the solution to one problem creates problems in another area. This is demonstrated in Table S-1: Project Potential Impacts in the Summary of this environmental document where the proposed project alternatives are compared against one another in terms of the potential impacts each would have in the areas studied for the environmental document. The team considered these implications when decided on which alternatives to keep and which to withdraw from further consideration.

As explained in the response to Comment 22-1, there were other previously proposed project alternatives for retrofitting the existing bridge. However, each of these previous alternatives had critical downsides that the team discovered which had the potential to cause potentially significant negative impacts that were much higher in comparison to the alternatives that were kept for consideration in the environmental document.

Comment 23 – Cal. Transportation Commission

Original Comment

The California Transportation Commission (Commission), as a Responsible Agency, received the Draft Environmental Impact Report/Environmental Assessment and Section 4(t) Evaluation prepared by the California Department of Transportation to replace or retrofit the Saratoga Creek Bridge. The total project cost is estimated at $25 million and multiple alternatives are being considered.

The Commission has no comments with respect to the project purpose and need, the alternatives studied, the impacts evaluated, or the evaluation methods used. Please notify the Commission as soon as the environmental process is finalized since project funds cannot be allocated for project design, right of way, or construction until the final environmental document is complete. Once the final environmental process is concluded, the Commission will consider the environmental impacts in determining whether to approve the project for future funding consideration.

Upon completion of the environmental process, please ensure the Commission is notified in writing whether the selected alternative identified in the final environmental document is consistent with the appropriate Regional Transportation Plan. In the absence of such assurance of consistency, the project may be considered inconsistent, and thus ineligible for funding.

If you have any questions, please contact Jose Oseguera, Assistant Deputy Director, at (916) 653-2094.

Sincerely,

SUSAN BRANSEN

Executive Director

c: Phil Stolarski, Chief (Division of Environmental Analysis), California Department of Transportation

Caltrans Response

Comment noted.

Comment 24 – County of Santa Clara Historic Heritage Commission

Original Comment

Dear Caltrans,

[Comment 24-1 Due to public noticing requirements, the Long Bridge historic bridge project was not included on the agenda for the March 15 meeting of the Santa Clara County Historic Heritage Commission. We attended your public meeting in Saratoga on February 28, alerted by Annette Stransky of the Saratoga Historical Foundation. The project was brought to the attention of the Commission by the Giannini family during the Public Comment portion of the regular meeting of the Commission on March 15, and the scope of the project was discussed later in the meeting as an informational item.

Although the Commission was not able to take a formal vote on the project, we wish to add our comments. **]**

We were glad to see that the environmental documents did recognize that Highway 9 is a California Scenic Highway and that the bridge is historic. **[Comment 24-2** Please be aware that Long Bridge and the adjacent Saratoga Springs area have been designated as State Landmark #435, along with many other historic sites in Saratoga. This designation was awarded in 1950.**]**

[Comment 24-3 Our information regarding the construction of the bridge differs from your evaluation. A news article from February of 1903 discusses the opening of the bridge and says it is constructed completely of sandstone, quarried about 300 feet from the bridge site. This differs from your evaluation of the bridge as an unreinforced concrete bridge with earth fill.**]** The Saratoga area features several examples of extraordinary rock work by local masons. We refer you to the dam of the San Jose Water Company reservoir in Sanborn Park as well as the substantial retaining wall on Saratoga-Los Gatos Road (Highway 9) just a few feet from the Saratoga Museum.

We know that Caltrans is very sensitive to historic landmarks and will consider the situation carefully. Your work on Highway 9 adjacent to the Hakone Garden site several years ago was commendable. We are confident that your engineers will be able to balance the need for public safety with our desire to preserve a structure that is so remarkable.

[Comment 24-4 We were surprised to find that we had not been included on your list of agencies, even though this historic bridge is within Santa Clara County jurisdiction. Please add us to the list of contact agencies for any future projects.**] [Comment 24-5** In looking over the list of contacts for this project we see you have contacted the City of Santa Clara, not the County of Santa Clara.**]**

Please make that correction to your contact list for any future projects on Highway 9.

Sincerely,

Christopher Manning, Chairman

Santa Clara County Historic Heritage Commission

Caltrans Response

Comment 24-1: Caltrans is appreciative of the Historic Heritage Commission's participation. We regret that the Santa Clara County Historic Heritage Commission was not specifically included on the draft environmental document distribution list. However, a notice of availability of the draft environmental document was provided to the Santa Clara County Department of Planning and Development on February 14, 2018. It is Caltrans understanding that the Santa Clara County Historic Heritage Commission is under the jurisdiction of the Santa Clara County Department of Planning and Development and that the Department of Planning and Development would disseminate the information to the appropriate agencies. The Santa Clara County Historical Heritage Commission has been added to the distribution list to ensure your organization receives the finalized document.

Comment 24-2: The identification of Saratoga Creek Bridge in the California Landmark nomination prepared in 1949, which was subsequently registered as California Landmark #435, provides historical context of the area. Those resources located within the project area and that were identified in the landmark nomination were evaluated for the National Register of Historic

Places (NRHP) and California Register of Historic Resources. The only historical resource located within the project area is the Saratoga Creek Bridge, which was determined eligible for the NRHP in 1985 under the Caltrans Statewide Historic Bridge Inventory.

Comment 24-3: Chapter 1 of the environmental document references the in-depth special investigation of the structure's materials that was performed on the Saratoga Creek Bridge (Bridge No. 37 0074) in 2010 by Caltrans Materials Engineering and Testing Services, Office of Structural Materials Quality Assurance and Source Inspection. An In-Depth Investigation report was prepared in 2011 which contains the findings of this investigation (Petska, 2011). These findings are not different from your own findings. The rubble masonry spandrel walls are composed of sandstone. The earth-fill in the bridge is composed of a mixture of sandstone rubble and cement. The only feature that does not contain sandstone is the concrete arch, as can be seen in the picture below.

Figure 1 Picture of concrete arch looking westward at the western abutment. The two bore holes can be seen here where coring of the bridge was done for the 2011 in-depth geotechnical investigation (Petska, 2011).

Comment 24-4: April Halberstadt, Commissioner for the Santa Clara County Historic Heritage Commission, requested on May 8, 2017, that Robert Salisbury, a planner with the Santa Clara County Department of Planning and

Development, should be sent notification of the DED for the Commission. On February 14, 2018, Caltrans sent a notification of DED letter to Robert Salisbury. An electronic notification was also sent on February 21, 2018.

Comment 24-5: The City of Santa Clara is not included in the distribution list for the Draft EIR/EA. Caltrans did not circulate the DED to the City of Santa Clara since it is too far from both the project area and adjacent areas to be considered as potential stakeholders in the proposed project.

The list of agencies that the Notification of the Draft EIR/EA was sent can be found in Chapter 6 of the document. On page 6-3 of the DED the following departments within Santa Clara County's government are listed:

- Santa Clara County Roads & Airports Department
- Santa Clara County Park and Recreation Department
- Santa Clara County Department of Planning and Development Planning Office
- Sanborn County Parks and Recreation Department

The last is a typo that has been fixed in the finalized document, it should read Santa Clara County - Sanborn County Park since a notification was sent both to the principle planner of the Parks and Recreation Department and to the head ranger of Sanborn County Park itself.

No correction has been made since the Distribution List is already accurate. The Santa Clara County Historical Heritage Commission has been added to the distribution list of the finalized document.

Appendix L List of Technical Studies

Air Analysis Memorandum (Caltrans Office of Environmental Engineering, 1/14/16)

Archaeological Survey Report (Kristina Montgomery, Associate Archaeologist)

Construction Greenhouse Gas Emissions Analysis (Caltrans Office of Environmental Engineering, 1/14/16)

Construction Noise Analysis (Caltrans Office of Environmental Engineering, 5/20/19)

Hazardous Waste Memorandum Caltrans (Office of Environmental Engineering, 4/30/2019)

Historical Resource Evaluation Report (Helen Blackmore, Caltrans Architectural Historian)

Mobile Source Air Toxics Report (Rowena Hollis, Caltrans Air Quality Specialist)

Natural Environment Study (Mita Nagarkar, Caltrans Biologist)

Noise Analysis Memorandum (Caltrans Office of Environmental Engineering, 1/14/16)

Paleontological Investigation Report (Ronald Karpowicz, Caltrans Engineering Geologist)

Preliminary Geotechnical Report (Ronald Karpowicz, Caltrans Engineering Geologist)

Preliminary Hydraulics Report (Genaro Doria, Caltrans Structural Hydrologist)

Programmatic Section 4(f) Analysis (Noray-Ann Spradling, Associate Environmental Planner & Helen Blackmore, Architectural Historian)

Visual Impact Assessment (Beck Lithander, Caltrans Landscape Associate)

Water Quality Study (Mostafa Faghihi, Caltrans Water Quality Specialist)

Appendix M Bibliography

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