

U.S.-101 San Jose Creek Bridge Replacement

U.S. Route 101 in the city of Goleta in Santa Barbara County

05-SB-101-PM 21.3/21.9

EA 05-1H430

Project ID 0516000073

SCH #: 2019129047

Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment



Prepared by the
State of California Department of Transportation

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 U.S. Code 327 and the Memorandum of Understanding dated December 23, 2016, and executed by the Federal Highway Administration and Caltrans.

April 2020



General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Initial Study/Environmental Assessment, which examines the potential environmental impacts of alternatives being considered for the project in Santa Barbara County. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

Please read the document.

Additional copies of the document and the related technical studies are available for review at the Caltrans District 5 office at 50 Higuera Street, San Luis Obispo, California 93401.

The document can also be downloaded at the following website:

<https://dot.ca.gov/caltrans-near-me/district-5>

Due to the current COVID-19 pandemic, if you prefer a printed or CD version of this document, please contact: Matthew Fowler at 805-542-4603 or via email to matt.c.fowler@dot.ca.gov

Tell us what you think. If you have any comments regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments to: Environmental Branch Chief, Attention: Matthew Fowler, California Department of Transportation, Environmental Planning, 50 Higuera Street, San Luis Obispo, California 93401 via U.S. mail or at matt.c.fowler@dot.ca.gov for emails.

Submit comments by the deadline: May 27, 2020.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and build all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Matt Fowler, Environmental Planning, 50 Higuera Street, San Luis Obispo, California 93401; 805-542-4603 (Voice), or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.


05-SB-101-PM 21.3/21.9
EA: 05-1H430
Project ID: 0516000073
SCH #: 2019129047

Replace the existing San Jose Creek Bridges (Number 51-0163 L/R) with a single-span bridge on U.S. Route 101 at post mile 21.6 in Santa Barbara County

**INITIAL STUDY
with Proposed Mitigated Negative Declaration/
Environmental Assessment**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation
and
California Transportation Commission



John Luchetta
Office Chief, Central Region
Environmental Central Coast Office
California Department of Transportation
NEPA and CEQA Lead Agency

April, 6, 2020

Date

The following person may be contacted for more information about this document:
Matthew Fowler, Environmental Branch Chief
50 Higuera Street
San Luis Obispo, California 93401
805-542-4785
matt.c.fowler@dot.ca.gov

This page left intentionally blank

DRAFT
Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the existing northbound and southbound San Jose Creek Bridges (Bridge Number 51-0163 R/L) which are in Santa Barbara County on U.S. Route 101 at post mile 21.6. The new bridge design would be a single-span bridge. Building the new bridge would involve the following: removing the existing bridge structure and building a new bridge structure, removing the existing slope pavement on the creek banks, installing rock slope protection, replacing traffic barriers to meet current safety standards and minor earthwork. The project would affect nearby vegetation. U.S. Route 101 is a major north-south highway that serves California, Oregon, and Washington. Within the project limits, U.S. Route 101 consists of a six-lane freeway, with three lanes in each direction. The project is in an urban environment, which consists of residential, commercial, and industrial land uses.

Determination

This Proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision on the project is final. This Proposed Mitigated Negative Declaration is subject to change based on comments received from interested agencies and the public.

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

The project would have no effect on existing or future land use, coastal resources, wild and scenic rivers, parks and recreation facilities, farmland, timberland, growth, community character and cohesion, environmental justice, utilities, cultural resources, paleontological resources, and mineral resources.

The project would have no significant effect on visuals/aesthetics, emergency systems/services, traffic and transportation, wildfire hazards, hydrology and floodplains, geology and soils, hazardous materials, air quality, and noise levels.

The project would have no significantly adverse effect on water quality or biological resources because the following measures would reduce potential effects to insignificance:

Water Quality Measures

Project-related work in the creek will not be conducted during the wet season.

A water diversion/dewatering management plan will be implemented to allow for work in the wetted channel.

Appropriate Best Management Practices for water pollution control, erosion control and stormwater management will be implemented during project construction.

Biological Resource Measures

Pre-construction surveys will be conducted for special-status species before removing vegetation.

Vegetation and tree removal will be kept to the minimum required for project completion.

Before project construction begins, environmental sensitive area fencing would be installed within the project site to keep construction activities out of those areas.

Biological monitoring would be conducted during various stages of project construction.

Invasive, non-native species would be controlled to the maximum extent possible.

Areas disturbed by project construction would be restored in to conditions that would allow them to function as potential habitat for species.

On-site compensatory mitigation would be required for the project. Temporary impacts to wetlands and jurisdictional areas would require a 1 to 1 replacement ratio. Native plant replacement would require a 1 to 1 replacement ratio. It is anticipated that impacts to riparian trees would require a 3 to 1 replacement ratio.

John Luchetta
Office Chief, Central Region
Environmental Central Coast Office
California Department of Transportation

Date

Table of Contents

DRAFT Proposed Mitigated Negative Declaration	iii
Chapter 1 Proposed Project	1
1.1 Introduction.....	1
1.2 Purpose and Need.....	3
1.2.1 Purpose.....	3
1.2.2 Need	3
1.3 Project Description	4
1.4 Project Alternatives.....	5
1.4.1 Build Alternative	6
1.4.2 No-Build (No-Action) Alternative	6
1.5 Comparison of Alternatives	7
1.6 Alternatives Considered but Eliminated from Further Discussion	7
1.6.1 Alternative 1	8
1.6.2 Alternative 2	8
1.7 Permits and Approvals Needed	9
Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures	11
2.1 Human Environment.....	15
2.1.1 Consistency with State, Regional and Local Plans and Programs	15
2.1.2 Cultural Resources.....	20
2.2 Physical Environment	23
2.2.1 Hydrology and Floodplain	23
2.2.2 Water Quality and Stormwater Runoff.....	25
2.2.3 Geology, Soils, Seismicity and Topography	31
2.3 Biological Environment.....	34
2.3.1 Natural Communities.....	34
2.3.2 Wetlands and Other Waters	39
2.3.3 Plant Species	43
2.3.4 Animal Species	45
2.3.5 Threatened and Endangered Species.....	53
2.3.6 Invasive Species	65
2.4 Construction Impacts.....	67
2.5 Cumulative Impacts	75
Chapter 3 CEQA Evaluation.....	85
3.1 Determining Significance under CEQA.....	85
3.2 CEQA Environmental Checklist	85
3.2.1 Aesthetics	86
3.2.2 Agriculture and Forest Resources.....	87
3.2.3 Air Quality	89
3.2.4 Biological Resources.....	91
3.2.5 Cultural Resources.....	93
3.2.6 Energy.....	94

3.2.7	Geology and Soils	95
3.2.8	Greenhouse Gas Emissions	97
3.2.9	Hazards and Hazardous Materials	98
3.2.10	Hydrology and Water Quality	100
3.2.11	Land Use and Planning	103
3.2.12	Mineral Resources	104
3.2.13	Noise	104
3.2.14	Population and Housing	106
3.2.15	Public Services.....	106
3.2.16	Recreation.....	107
3.2.17	Transportation	108
3.2.18	Tribal Cultural Resources.....	109
3.2.19	Utilities and Service Systems.....	110
3.2.20	Wildfire	111
3.2.21	Mandatory Findings of Significance	113
3.3	Climate Change.....	115
3.3.1	Regulatory Setting.....	115
3.3.2	Environmental Setting	119
3.3.3	Project Analysis.....	122
3.3.4	Greenhouse Gas Reduction Strategies.....	124
3.3.5	Adaptation	127
Chapter 4	Comments and Coordination.....	132
Chapter 5	List of Preparers	134
Chapter 6	Distribution List.....	136
Appendix A	Preliminary Project Layout.....	138
Appendix B	FEMA Flood Insurance Rate Map.....	140
Appendix C	Preliminary Project Cross Section	142
Appendix D	Jurisdictional Waters Area Map	144
Appendix E	Resource Study Area Map.....	146
Appendix F	Title VI Policy Statement.....	148
Appendix G	Avoidance, Minimization and/or Mitigation Summary	150
	List of Technical Studies	166

List of Figures

Figure 1-1 Project Vicinity Map	2
Figure 1-2 Project Location Map	3
Figure 3-1: U.S. 2016 Greenhouse Gas Emissions	120
Figure 3-2 California 2017 Greenhouse Gas Emissions	121
Figure 3-3 Change in California Gross Domestic Product, Population, and Greenhouse Gas Emissions since 2000.....	121
Figure 3-4 California Climate Strategy	124

This page left intentionally blank

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (known as Caltrans), as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act (known as NEPA). Caltrans is the lead agency under the California Environmental Quality Act (known as CEQA).

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 U.S. Code 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. The Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), signed by President Barack Obama on July 6, 2012, amended 23 U.S. Code 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 U.S. Code 327 (NEPA Assignment Memorandum of Understanding) with the Federal Highway Administration. The NEPA Assignment Memorandum of Understanding became effective on October 1, 2012, and was renewed on December 23, 2016, for a term of five years. In summary, Caltrans continues to assume Federal Highway Administration responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes.

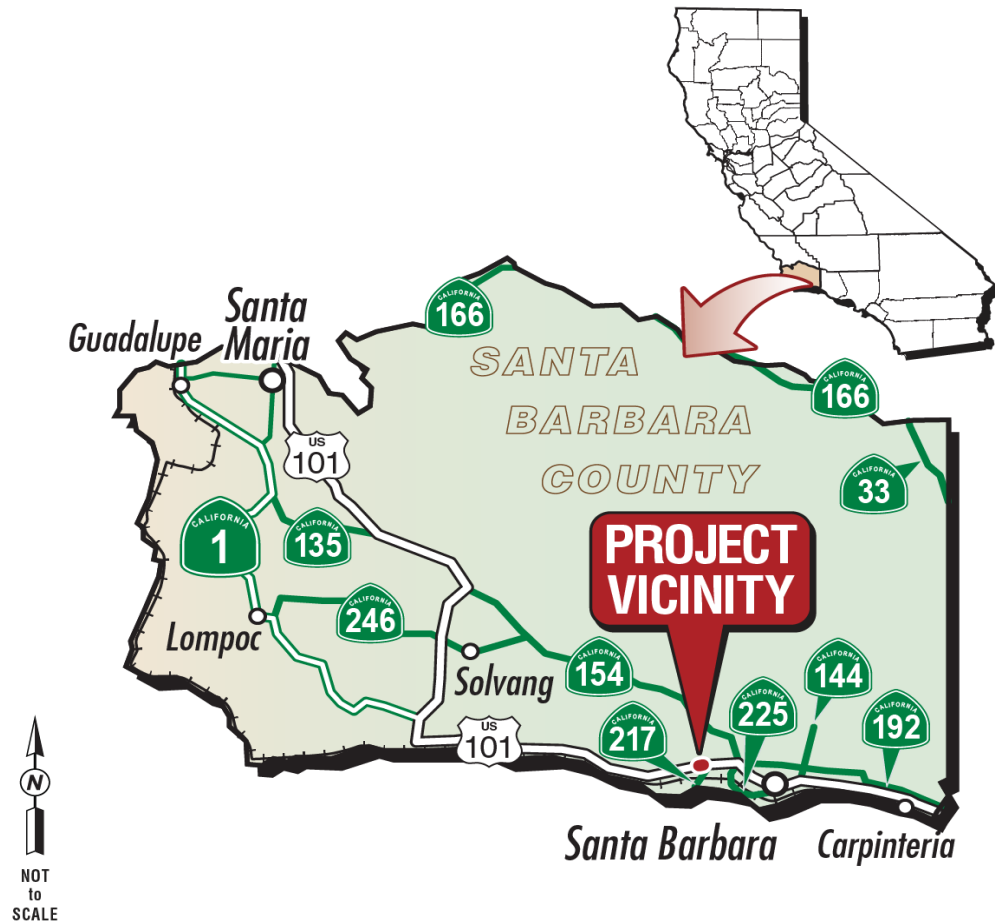
With NEPA Assignment, the Federal Highway Administration assigned, and Caltrans assumed all of the U.S. Department of Transportation Secretary’s responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the state of California, except for certain categorical exclusions that the Federal Highway Administration assigned to Caltrans under the 23 U.S. Code 326 CE Assignment Memorandum of Understanding, projects excluded by definition, and specific project exclusions.

Caltrans proposes to replace the existing northbound and southbound San Jose Creek Bridges, which are in the city of Goleta in Santa Barbara County on U.S. Route 101 at post mile 21.6. Within the project limits, U.S. Route 101 consists of a six-lane freeway, with three lanes in each direction. The project is in an urban environment, which consists of residential, commercial and industrial land uses.

Figures 1-1 and 1-2 show the project vicinity map and the project location map, respectively.

Appendix A provides a preliminary layout for the project and activities required for project completion.

Figure 1-1 Project Vicinity Map

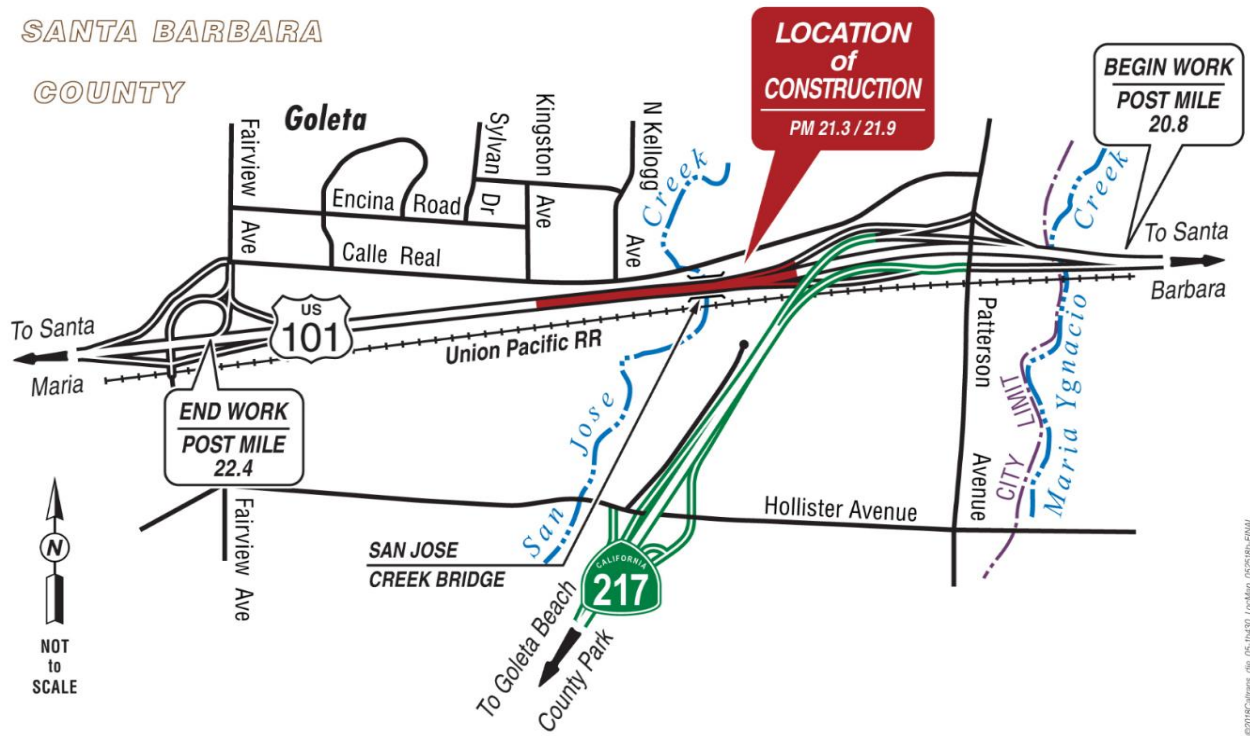


Past bridge inspections have found that the existing northbound and southbound bridge structures contain reactive aggregate in the concrete, which have the potential to compromise the structural integrity of the bridges.

Funds from the 2018 State Highway Operation and Protection Program would finance the project. The project was included in the Santa Barbara Association of Governments' approved 2019 Federal Transportation Improvement Program, under the State Highway Operation and Protection Program.

The total cost estimate for project construction is about \$19,515,000, with an estimated escalated cost of about \$22,982,000. Project construction is expected to start in the 2022-2023 fiscal year, and end in the 2024-2025 fiscal year. Project construction is expected to take about 280 working days spread between two construction seasons. Typical construction season occurs between June to October.

Figure 1-2 Project Location Map



1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to address the structural deficiencies of the northbound and southbound San Jose Creek Bridges to ensure the function and reliability of U.S. Route 101.

1.2.2 Need

Based on recommendations in the Structure Replacement and Improvement Needs Report, the Bridge Maintenance Strategy Fact Sheet, and Bridge Inspection Reports, replacing the northbound and southbound San Jose Creek Bridges (Bridge Number 51-0163 R/L) is required. The Structure Replacement and Improvement Needs Report identified a need that requires replacing both the substructure and superstructure of the bridges to remedy the issue of reactive aggregate in the concrete and to ensure the function and reliability of this link in the California transportation system.

1.3 Project Description

The existing San Jose Creek Bridges consists of separate northbound and southbound structures. However, the bridges will be treated as a single structure throughout the remainder of the document because the new replacement bridge structure would be designed as a single structure that will accommodate both the northbound and southbound lanes. Caltrans proposes to replace the existing San Jose Creek Bridge because of the presence of an alkali-silica reactions are identified in the concrete. Alkali-silica reactions are chemical reactions that occur within the concrete, resulting in visible cracks and spalling. The presence of alkali-silica reactions have the potential to weaken concrete, which could negatively affect the structural integrity of the bridge.

The existing San Jose Creek Bridge was built in 1946 and widened in 1989. The existing structure is about 100-feet long and 114-feet wide and has three spans with 58 columns placed in the creek channel. The bridge has six 12-foot-wide lanes, two 8-foot-wide inside shoulders, two 8-foot-wide outside shoulders, and a 22-foot-wide center median.

The new bridge would be at the same location as the existing bridge. The new bridge would be designed as a single-span bridge with dimensions and features similar to the existing bridge. The new bridge would not require columns or foundations in the creek. The new bridge will incorporate several of Caltrans' standards for highway design, bridge design and seismic design to meet current requirements.

The project would require temporary creek access during the bridge demolition and construction process. The majority of permanent and temporary construction impacts associated with the project are anticipated to occur within the existing state right-of-way. However, the project would require temporary construction easements and permanent drainage easements to install rock slope protection just downstream of the bridge.

The project would also involve drainage work, guardrail work, roadway repaving, sign relocation, vegetation clearing and tree removal. The project would limit the amount of disturbance to the creek, the surrounding vegetation, and the existing landscape. Utility work is not anticipated to be required for the project.

During project construction, traffic lanes will be temporarily reduced from three lanes to two lanes for both the northbound and southbound direction within the project limits. This would allow U.S. Route 101 to remain open and allow travelers to pass through the project site while project construction is in progress. Lane reductions would require installing temporary concrete barriers on the roadway and construction warning signs between project limits. Temporary concrete barriers would be installed outside of normal traffic hours. Temporary construction warning signs would be installed before construction starts. During project construction, the speed limit in the project area would be reduced from 65 miles per hours to 55 miles per hour. When

feasible, project activities associated with temporary traffic management and traffic control would be conducted at night to avoid daytime peak traffic hours.

During project construction the U.S. Route 101 northbound on-ramp from Patterson Avenue and the U.S. Route 101 southbound off-ramp to Patterson Avenue will remain accessible to travelers. In order to keep the two ramps accessible during construction, temporary realignments of the ramps will be required. Temporary realignments of the ramps will require expanding the width of the existing ramps and shifting the usable lanes on the ramps. In order to temporarily realign the two ramps, it is anticipated that temporary short-term ramp closures would be required to install temporary paving, install temporary barriers and to keep ramp areas free of traffic during realignment work. Any required temporary short-time ramp closures would occur for no more than 12 hours at a time, outside of normal peak traffic hours and for no more than two consecutive days. It is also anticipated that any temporary short-term ramp closures could be conducted at night whenever feasible and appropriate. Once the temporary ramp realignment work is completed, the two ramps would be reopen to traffic. The two ramps would be maintained and remain accessible for the remainder of project construction. During project construction, the other ramps for Patterson Avenue would not be disturbed. The ramps on State Route 217 are not anticipated to be disturbed by the project.

In addition, the proposed project will include Caltrans' standard measures and plans that are typically included on all Caltrans projects. Caltrans' standard measures and plans are considered features of the project. Caltrans' standard measures and plans are not implemented to address specific effects, impacts or circumstances of a project, but are implemented as a component of the project to address generic and typical issues often encountered in Caltrans' projects and is evaluated as a feature of the proposed project. Caltrans' standard measures and plans allow for little discretion regarding their implementation. Caltrans' standard measures and plans typically includes, but no limited to; Best Management Practices, Landscape Architecture Landscape Planting Plan, Biological Mitigation and Monitoring Plan, Cultural Monitoring Plan, Hazardous Waste Management, Transportation Management Plan, Caltrans' Highway Design Manual, Caltrans' Standard Specifications, Caltrans' Standard Special Provisions and Caltrans' Non-Standard Special Provisions.

1.4 Project Alternatives

Two alternatives are under consideration for the project: a Build Alternative and a No-Build Alternative.

The alternatives that are under consideration were developed by an interdisciplinary team. Several criteria were taken into consideration when evaluating the various alternatives for the proposed project, including, the project's purpose and need, cost, design, construction strategies and environmental impacts.

1.4.1 Build Alternative

The Build Alternative would replace the existing bridge with a new, single-span bridge. The new bridge would be about 100-feet long and about 129-feet wide, with six 12-foot-wide lanes, a 10-foot-wide inside shoulder, and a 10-foot-wide outside shoulder. The new bridge would remain on the existing horizontal centerline alignment. The new southbound lanes would be on a higher profile to match the elevation of the northbound lanes. The structural depth of the new bridge deck would be 3 feet and 11 inches. The new bridge would be designed to meet current Caltrans' standards for highway design, seismic design, safety design and hydraulic designs. The new bridge would also meet the Federal Emergency Management Agency's floodway requirements and would not encroach on the base floodplain.

The new bridge would include new barriers that would meet Caltrans' current design standards and would include aesthetic treatments. The existing landscape and irrigation within the median barrier would be replaced in kind. Roadway pavement work would be required to match the existing road grade with the new bridge. A section of an existing retaining wall west of the bridge and along the southbound shoulder would be changed as part of the road grade adjustment. Work on the retaining wall would include removing and replacing existing metal beam guardrails with concrete barriers.

New abutments would be built to accommodate the new wider single bridge structure and would involve installing cast-in-drilled-hole piles. The new bridge would incorporate precast prestressed concrete girders. The new bridge deck would be poured in place. Construction of the new bridge would also involve removing the existing concrete columns in the creek channel.

The existing sack-crete and concrete lining on the embankment of the creek would be removed and replaced with rock slope protection. Rock slope protection would protect the creek banks and bridge abutments from erosion. Rock slope protection would be installed from the existing state right-of-way to the north and south of the bridge. A temporary construction easement and a permanent drainage easement would be required to add rock slope protection to the south of the bridge. This alternative would also involve improvement work on a drainage ditch that is northeast of the bridge.

1.4.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, the existing San Jose Creek Bridge would not be replaced. No modifications would be made to the existing bridge structure. No other improvements would be conducted for the project under the No-Build Alternative. This alternative would not address the reactive aggregate found in the substructure and superstructure of the existing bridge. The presence of alkali-silica reactions would continue to negatively affect the structural integrity of the bridge and could potentially reduce the functionality and reliability of U.S. Route 101.

1.5 Comparison of Alternatives

When alternatives are evaluated, the purpose and need of the project, and the locations where environmental impacts could occur, need to be considered.

The Build Alternative would satisfy the purpose of the project because it would address the structural concerns on the existing San Jose Creek Bridge by replacing it with a new bridge. The Build Alternative would satisfy the need of the project because it would address the issue of reactive aggregates in the concrete and ensure that U.S. Route 101 remains functional and reliable. The Build Alternative would cause temporary and permanent impacts to environmental resources in the project area. Construction activity will be required to occur within the San Jose Creek and have the potential to affect, biological resources and water quality. Project would require temporary traffic management and traffic control which have the potential to temporarily affect traffic conditions on U.S. Route 101 during construction. Traffic conditions on U.S. Route 101 is not anticipated to change as a result of the project at the end of project construction. Although the Build Alternative would result in temporary and permanent changes to existing conditions, the analysis of technical reports completed for the project indicates that the changes would not be substantial. The analysis also indicates that the changes would be further reduced with the incorporation of avoidance, minimization and/or mitigation measures. Chapter 2 of this environmental document provides discussions regarding the project's potential environmental impacts and anticipated project-related measures.

The No-Build Alternative would not satisfy the purpose or need of the project because it would not address the presence of reactive aggregates in the concrete, structural deficiencies on the existing bridge, or ensure that the bridge will remain a reliable and functional component of U.S. Route 101. The No-Build Alternative would not involve construction activities, traffic management, or make any changes to existing conditions. Therefore, the No-Build Alternative would not cause any temporary or permanent impacts to environmental resources.

1.6 Alternatives Considered but Eliminated from Further Discussion

Three potential build alternative were originally considered during the project's preliminary development process. Alternative 1 and Alternative 2 were eliminated after early preliminary investigations and before the preparation of the draft environmental document. General descriptions of Alternative 1 and Alternative 2, along with the reasons for eliminating them from further discussion are provided below.

The currently proposed Build Alternative was originally identified as Alternative 3.

1.6.1 Alternative 1

Alternative 1 would have replaced the existing northbound and southbound San Jose Creek Bridges with a new wider single bridge that would have accommodated the northbound and southbound lanes. The new bridge would have been approximately 100-feet long, with six 12-foot-wide lanes, an 8-foot-wide inside shoulder, and 10-foot-wide outside shoulders. The new bridge would have been a single-span structure with precast prestressed concrete components. Alternative 1 would have used Accelerated Bridge Construction methods.

Under alternative 1, the new bridge would have used wide-flange girders, which would have made the structural depth of the new bridge deck about 4 feet and 9 inches. The wide-flange girders would have also made the bridge deck thicker and would have lowered the elevation of the bridge soffit.

Alternative 1 was considered but was rejected because the elevation of the new bridge soffit would have encroached on the existing base flood elevation as defined by the San Jose Creek's Federal Emergency Management Agency floodway maps.

It was anticipated that the new structure would have put the bridge soffit several inches below the anticipated flood water surface level and could have potentially exposed the bridge deck to flood waters. For this alternative to not encroach on the base flood elevation, the entire bridge would have needed to be raised.

Raising the new bridge structure would have required permanent modifications to the northbound on-ramp and the southbound off-ramp for Peterson Avenue, required reconstruction of the bridge approach on the highway, and required extensive modifications to the adjacent retaining wall. Raising the new bridge structure would have required more construction work, resulting in substantial increase to the project scope and cost. The anticipated construction work required for Alternative 1 also had a greater potential for the project to affect existing environmental resources. Due to the possibility of multiple project-related issues and impacts, Alternative 1 was rejected.

1.6.2 Alternative 2

Alternative 2 would have replaced the existing northbound and southbound San Jose Cree Bridge with a new wider single bridge that would have accommodated the northbound and southbound lanes. The new bridge would have been approximately 100-feet long, with six 12-foot-wide lanes, an 8-foot-wide inside shoulder, and 10-foot-wide outside shoulders. The new bridge would have been a two-span structure with a precast prestressed voided concrete slab and would have required installing support columns in the creek. Alternative 2 would have used Accelerated Bridge Construction methods.

Under Alternative 2, the new bridge would have had a structural depth of 2 feet and 2 inches, which would have made the bridge deck and the elevation of the bridge soffit similar to the existing bridge. Alternative 2 would have required installing support columns in the middle of the creek and would have also required the use of falsework to construct the bridge structure.

Alternative 2 was considered but was rejected because it was anticipated that installing the support columns in the middle of the creek would have resulted in severe environmental impacts to the creek, which would have required extensive mitigation efforts. Additionally, requiring falsework to build the bridge would have potentially resulted in additional impacts to environmental resources and/or additional limitations to the construction schedule. Due to the anticipated impacts to environmental resources and potentially extensive amounts of mitigation, Alternative 2 was rejected.

1.7 Permits and Approvals Needed

The following permits, licenses, agreements, certifications, and/or approvals are anticipated to be required for the project before construction starts:

U.S. Army Corps of Engineers: Section 404 Nationwide Permit for impacts to waters of the U.S.

U.S. Fish and Wildlife Service: Section 7 Consultation for threatened and endangered species review.

National Marine Fisheries Service: Section 7 Consultation for threatened and endangered species review.

Regional Water Quality Control Boards: Section 401 Certification for impacts to waters of the U.S.

California Department of Fish and Wildlife: Section 1602 Streambed Alteration Agreement for impacts to streams under the California Department of Fish and Wildlife's jurisdiction.

This page left intentionally blank

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

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

Land Use: The land use around the project area is identified as a mix of residential, commercial and industrial. The project would require a temporary construction easement and a permanent drainage easement from one private industrial property, identified as Santa Barbara County Assessor's Parcel Number 017-090-082. The required temporary construction easement is anticipated to be less than 1,000 square feet. The required permanent drainage easement is anticipated to be less than 100 square feet and would be an addition to an existing drainage easement that is already on the property. Temporary and permanent easements are not anticipated to affect the existing operation on the property. Easement acquisition would be coordinated with the property owner after the project has been approved. All other project-related work is anticipated to occur within the existing state right-of-way. The project is not anticipated to change or affect any other existing or future land use in the vicinity (see Appendix A).

Coastal Zone: Based on the Santa Barbara County Coastal Zone map, the project is outside the Coastal Zone. Therefore, the project is not anticipated to impact to coastal resources.

Wild and Scenic Rivers: There are no wild and scenic rivers in or near the project area, according to the Wild and Scenic Rivers System list, which the National Park Service maintains. Therefore, no impacts to wild and scenic rivers would occur.

Parks and Recreation Facilities and Section 4(f) Resources: There are no historic sites, parks and recreational resources, wildlife or waterfowl refuge within the project limits (see Appendix A). The project would not cause impacts to Section 4(f) resources such as wildlife or waterfowl refuges, parks and recreation resources, and historic sites. Therefore, the project is not subject to Section 4(f) provisions of the Department of Transportation Act of 1966. Although the project does not involve work on an existing park or recreational facility, project construction activities may cause minor indirect impacts or nuisances to parks in the nearby vicinity. This is further discussed in Section 2.4 Construction Impacts.

Farmland/Timberland: According to the California Department of Conservation's Farmland Mapping and Monitoring Program, no farmlands or vacant lands that have been mapped as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance occur within the vicinity of the project. Additionally, there are no timberlands within the study area. Therefore, the project would have no effect on farmlands or timberlands.

Growth: The project would not alter the existing roadway capacity and is limited to replacing the existing San Jose Creek Bridge and repaving roadway surfaces (see Chapter 1). The project would not alter existing or future accessibility in the region. Therefore, the project would not cause direct or indirect growth-related impacts in the vicinity.

Community Impacts: The project would require a permanent drainage easement for one private industrial property, identified as Santa Barbara County Assessor's Parcel Number 017-090-082. The permanent drainage easement is anticipated to be less than 100 square feet and would be an addition to an existing drainage easement that is already on the property. The required permanent drainage easement is not anticipated to affect the existing operation on the property. Easement acquisition would be coordinated with the property owner after the project has been approved. Project construction is not anticipated to cause community impacts in the project area. The project would not increase or decrease public access in the project area. No minority or low-income populations that would be adversely affected by the project have been identified. Therefore, the project is not subject to the provisions of Executive Order 12898. The project would not affect the community's character because the new bridge would be similar in design and appearance to the existing bridge (see Appendix C).

Utilities: During project construction, existing utilities within the project footprint would be avoided and protected. Utility work is not anticipated at this time.

Emergency Services: The project would replace the existing bridge with a new bridge of a similar design at the same location (see Chapter 1). The new bridge would not alter existing planned routes for emergency responses or evacuations. Therefore, the project would not permanently impact emergency services' plans or activities in the region. However, project construction may cause minor impacts to emergency services' response times. This is further discussed in Section 2.4 Construction Impacts.

Visuals/Aesthetics: The project would replace an existing bridge with a new bridge of a similar design and would not alter the existing visual quality. The project is anticipated to have little effects on the existing visual quality of the area. As seen from U.S. Route 101, the primary public viewpoint, the new bridge would be noticeable for a short duration by the traveling public. The creek and distant hills would remain visible and continue to contribute to the scenic vista of the area. The proposed project would not substantially reduce the visual character of the surrounding setting. The project location is not classified as an Officially Designated State Scenic Highway. The project would not add new lighting or new sources of glare. The project will include landscaping to restore areas disturbed by the project.

Therefore, no visual impacts are anticipated. for the project (Visual Impact Assessment, February 12, 2019).

Traffic and Transportation: The project would replace an existing bridge with a new bridge of a similar design at the same location (see Chapter 1). The new bridge would not alter existing traffic or transportation patterns in the region. Therefore, the project would not cause permanent impacts to traffic or transportation. Project construction have the potential to cause temporary impacts to traffic on U.S. Route 101 and is further discussed in Section 2.4 Construction Impacts.

Pedestrian and Bicycle Facilities: Based on investigations of the project location, U.S. Route 101 is restricted to motor vehicle traffic only. There are no pedestrian or bicycle facilities within Caltrans' right of way. Therefore, the project would not impact pedestrian or bicycle facilities. However, the city of Goleta has future plans to build a multipurpose path that would cross underneath the existing San Jose Creek Bridge. The city of Goleta has secured funding for the multipurpose path, but design and construction plans for that project have not been approved. Caltrans and the city of Goleta are in coordination to ensure that both the new San Jose Creek Bridge and the proposed multipurpose path can be construction with minimal conflicts. The proposed new bridge design is not anticipated to conflict with the future multipurpose path. This is further discussed in Section 2.1.1 Consistency with State, Regional and Local Plans and Programs.

Paleontology: The probability of the project encountering paleontological resources is low because work would occur on or near a bridge site that has been previously disturbed. (Paleontology Assessment, July 6, 2018)

Hazardous Waste and Materials: The project has a low potential of encountering or disturbing hazardous materials. The project is not near any known hazardous sites. Project activities may disturb potentially hazardous materials typically found within the existing bridge or roadway features. The project would incorporate Caltrans' standard practices to test for and control potentially hazardous materials that may be encountered during the project construction process. Any materials or substances identified as hazardous would be treated and handled as required by Caltrans' Standard Specifications and Caltrans' Standard Special Provisions, and as required by state and federal regulations. The project is not anticipated to cause adverse effects as a result of encountering, disturbing or transporting hazardous materials. (Hazardous Waste Technical Memo, February 14, 2018)

Air Quality: The project would replace the existing bridge with a new bridge of a similar design at the same location. Based on the Air Quality Memo conducted for the project, the new bridge would not alter current vehicle travel patterns or alter current air quality trends in the region. However, project construction could cause relatively minor, temporary impacts to air quality in the project vicinity. This is further discussed in Section 2.4 Construction Impacts. (Revised Air Quality, Noise, and Greenhouse Gas Memo, February 12, 2020)

Noise: The project would replace the existing bridge with a new bridge of a similar design at the same location and repave the roadway. Because the project would not alter the freeway's capacity or alter the existing alignment, local noise levels are not

anticipated to change as a result of the project. The project is not anticipated to cause permanent noise-related impacts. However, project construction operations could cause intermittent or sporadic noises that could cause temporary noise nuisance or impacts to nearby receptors. This is discussed further in Section 2.4 Construction Impacts. (Revised Air Quality, Noise and Greenhouse Gas Memo, February 12, 2020)

Wildfire: Based on Santa Barbara County Fire Hazard Severity Zone maps, the project is in an urban area and is not within a wildfire hazard zone. The new bridge is not anticipated to change existing conditions in a way that would affect wildfire occurrences or affect wildfire incidents. The project would incorporate Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to fire prevention. The project would also incorporate precautions set forth by the California Division of Occupational Safety and Health's Fire Protection and Prevention Guidance, and by the U.S. Occupational Safety and Health Administration's Fire Prevention Plan and Emergency Action Plan.

2.1 Human Environment

2.1.1 Consistency with State, Regional and Local Plans and Programs

Affected Environment

State

The project is on U.S. Route 101 and is within a state right-of-way. The project is included in the 2018 State Highway Operation and Protection Program, which is derived from the state's Transportation Concept Report that was prepared for District 5. The Transportation Concept Report was developed by the state of California in coordination with Metropolitan Planning Organizations and Regional Transportation Planning Agencies and helps to guide the development of California's state highway systems. In the Transportation Concept Report, District 5 includes Santa Cruz County, San Benito County, Monterey County, San Luis Obispo County, and Santa Barbara County.

Regional

The project is within Santa Barbara County, and is included in the Santa Barbara County Association of Governments' approved 2019 Federal Transportation Improvement Program. The program is under the State Highway Operation and Protection Program Grouped Project Listing—Bridge Rehabilitation and Reconstruction. The project is also included in the Santa Barbara County Association of Governments' approved 2040 Regional Transportation Plan under the project number GO-202. The Santa Barbara County Association of Governments is a regional planning agency that is composed of Santa Barbara County and all of the incorporated cities within the county. One of the responsibilities of the Santa Barbara County Association of Governments is to provide regional and transportation planning for the county.

Local

The San Jose Creek Bridge Replacement project is within the boundary of the city of Goleta.

General Plan

The city of Goleta's General Plan was adopted on October 2, 2006, and was amended on December 3, 2019. A general plan is a planning guideline used to direct the future goals and development in a city. The city of Goleta's General Plan includes the following elements: land use, open space, conservation, safety, visual and historic resources, transportation, public facilities, noise, and housing.

The general plan's transportation element identifies U.S. Route 101 as a designated freeway that provides east to west access in the region. U.S. Route 101 contains

interchanges to major north-south arterial networks in the city. The general plan identifies that the limited number of north-south crossing on U.S. Route 101 is influencing local traffic conditions.

Bicycle and Pedestrian Master Plan

On October 16, 2018, the Goleta City Council adopted the completed Bicycle and Pedestrian Master Plan. The master plan replaced the Interim Bicycle Transportation Plan that was adopted in 2009. The Bicycle and Pedestrian Master Plan provides goals and objectives to create infrastructure, programs, and policies in the city's general plan.

The general plan is the main document that specifies goals and policies that relate to walking and bicycling. The Bicycle and Pedestrian Master Plan outlines broad improvements within public rights-of-way that would be developed and built after the city council directs project funding and prioritization, which is anticipated to occur over the next 10 to 20 years. The Bicycle and Pedestrian Master Plan would be updated in future years as new programs and projects are identified. The city of Goleta has several multimodal paths plans that are currently being proposed and considered. The plans are intended to provide connections to and from major urban centers in the region.

One such multimodal path is the San Jose Multipurpose Path, which would follow along the San Jose Creek. This multipurpose path would stretch from Calle Real to the north, to the existing Obern Trail to the south. Portions of the San Jose Multipurpose Path project would occur in the right-of-way of Caltrans, Union Pacific Railroad, Santa Barbara County, and the city of Goleta. Each responsible agency would be required provide oversight for part of the multipurpose path that is within their respective right-of-way.

The city of Goleta is coordinating with Santa Barbara County, Union Pacific Railroad, and Caltrans on the San Jose Multipurpose Path project. As the implementing agency, the city of Goleta would be responsible for all aspects of the project, including preparing and completing project investigations, reports, and design materials. The project has gone through several feasibility studies and alternate alignment studies, which were conducted between 2009 and the present day. The city of Goleta has been granted funding for the project.

The project is currently being developed into two portions: the middle extent and the southern extent. For the middle extent, a Class 1 multipurpose path would be built along the west side of San Jose Creek and would extend from Hollister Avenue to Calle Real. The middle extent would be broken into two segments: Segment 1 and Segment 2. Segment 1, which would extend north from Hollister Avenue to Armitos Avenue, would be built as part of the city of Goleta's Hollister/Kellogg Park project. Segment 2 would extend north from Armitos Avenue to Calle Real. Segment 2 would require the multipurpose path to cross Union Pacific Railroad's tracks and U.S. Route 101. Preliminary designs for Segment 2 are currently being conducted.

The southern extent would extend south from Hollister Avenue along the new Class 2 bike facility proposed along Kellogg Avenue. The proposed Class 2 bike facility would be built with the Ekwil Street project. The multipurpose path would then cross the San Jose Creek to the east via a bicycle/pedestrian bridge and follow along the western side of State Route 217. Near where San Jose Creek meets with San Pedro Creek, the multipurpose path would cross State Route 217 and connect with the existing Class 1 Obern Trail. Preliminary designs for the southern extent are currently being conducted.

Although the city of Goleta has been granted funding for the San Jose Multipurpose Path project, the project's design is still in the preliminary stage; construction for the project has not been approved. Current maps for the San Jose Multipurpose Path are still preliminary and are subject to change before construction for the project is approved. Based on preliminary mapping from the city of Goleta regarding Segment 2 of the middle extent for the San Jose Multipurpose Path project, the project is proposing to build an undercrossing beneath the existing San Jose Creek Bridge on U.S. Route 101 that is within a Caltrans right-of-way.

The city of Goleta is coordinating with Caltrans regarding current proposals for portions of Segment 2 of the middle extent that occurs within Caltrans' right-of-way. Caltrans would be involved in the oversight for all project materials for the San Jose Multipurpose Path project, which is within a Caltrans right-of-way. Caltrans has classified the project as a federal oversight project and is the designated NEPA lead. The San Jose Multipurpose Path project has been assigned the Federal Project Number 0518000229 for Caltrans' oversight processes.

Environmental Consequences

State

The project is anticipated to be consistent with the State Highway Operation and Protection Plan because the bridge replacement would ensure the protection and operation of the U.S. Route 101 corridor. The project is anticipated to be consistent with the Transportation Concept Report's vision for the U.S. Route 101 corridor because it would ensure reliable travel access on the bridge.

Regional

The project is limited to the San Jose Creek Bridge location and is not anticipated to affect regional planning or development. The project is anticipated to be consistent with the Santa Barbara County Association of Governments' Regional Transportation Plans because it would replace the existing bridge with no capacity increases.

Local

General Plan

The project is not anticipated to conflict with the following general plan elements:

Transportation

The scope of the project is to replace the existing San Jose Creek Bridge on U.S. Route 101. The project would not interfere with the city of Goleta existing or future collaborations with other agencies to develop non-interchange crossings that would improve north to south connections for bicycles, pedestrians, or traffic. To complete the project, temporary, unavoidable construction activities would need to occur on the highway. Project construction activities would require traffic control to keep traffic outside of construction areas and to maintain traffic access into the project area.

Noise

The project would not increase traffic capacity or alter the existing highway alignment. Therefore, the project would not result in permanent changes to existing ambient noise levels associated with traffic noise. The project is anticipated to generate unavoidable temporary construction noise. The majority of construction activities would be conducted during the day, however, installing temporary barriers for traffic management and traffic control would occur at night to avoid peak traffic hours.

Bicycle and Pedestrian Master Plan

The San Jose Creek Bridge Replacement project is not anticipated to affect the southern extent or Segment 1 of the middle extent of the proposed San Jose Multipurpose Path project. The San Jose Creek Bridge Replacement project is not anticipated to significantly affect Segment 2 of the middle extent of the proposed San Jose Multipurpose Path project.

Based on preliminary information from the city of Goleta, Caltrans anticipates the San Jose Creek Bridge Replacement project to improve existing bridge conditions and better accommodate Segment 2 of the proposed San Jose Multipurpose Path project. The new bridge design would:

Remove existing piers underneath the bridge, creating a more open environment underneath the bridge. It is anticipated that the free span bridge design would be more appealing to users of the proposed multipurpose path.

Remove the existing concrete-paved creek banks and replaced with rock slope protection. Rock slope protection would be installed below the existing grade and at a shallower grade than the existing concrete-paved creek banks. After installing rock slope protection, the creek banks would have a gentler slope, which would provide additional space that could be used for the proposed multipurpose path.

Increase clearances underneath the bridge that would improve clearance for the proposed multipurpose path.

Be very similar to existing bridge design and is not anticipated to impede or hinder the design or the construction of Segment 2 of the middle extent for the proposed multipurpose path.

It is anticipated that Caltrans and the city of Goleta would continue to collaborate on the San Jose Creek Bridge Replacement project on U.S. Route 101, and on the proposed Segment 2 of the middle extent for the San Jose Multipurpose Path project to reduce potential impacts and conflicts between each project.

There is the potential that construction of the proposed San Jose Creek Bridge Replacement project and the construction of Segment 2 of the middle extent for the proposed San Jose Multipurpose Path project may occur concurrently. However, in order for both projects to be construction at the same time, the proposed San Jose Multipurpose Path project will require construction approval from the city of Goleta, as well approval from Caltrans, who is the designated NEPA lead. For the city of Goleta to obtain approval from Caltrans, the city will need to provide Caltrans with a set of finalized project documents and materials for the proposed San Jose Multipurpose Path project.

Avoidance, Minimization and/or Mitigation Measures

The following measures would be implemented to minimize potential impacts as a result of the proposed project:

General Plan

No measures would be required for the transportation element because the project would not conflict with the transportation element. The project will include Caltrans' Standard Special Provisions and Caltrans' Standard Specifications. Both standards will execute traffic control strategies and actions to control traffic within the project area during the construction period.

No measures would be required for the noise element because the project would not conflict with the noise element. The project will include Caltrans' Standard Special Provisions and Caltrans' Standard Specifications. Both standards will execute noise control strategies and actions within the project area during the construction period.

Bicycle and Pedestrian Master Plan

To avoid conflicts in the project's schedule, process and construction, Caltrans and the city of Goleta are actively collaborating on projects that are being proposed in the local area.

It is anticipated that continued collaboration between the city of Goleta and Caltrans would be required to avoid and minimize potential schedule, design and construction conflicts between the proposed San Jose Creek Bridge Replacement project and the proposed San Jose Multipurpose Path project.

There is the potential to further avoid and minimize construction conflict between the two projects. There is the opportunity for the new bridge construction process to also include the construction of the multipurpose path that is located within the new bridge footprint. This would allow for both projects to be construction at the same time because they are occurring at the same location. For this opportunity to occur, the city of Goleta will need approvals for the following documents for their proposed San Jose Multipurpose Path:

- Final Project Report
- Final Design Plans

In addition, the city of Goleta and Caltrans will need to approve the following agreements in order to share the responsibilities related to construction cost and maintenance cost of the multipurpose path that would be located within Caltrans' right-of-way:

- Funding Agreement
- Maintenance Agreement

If final documents and agreements are approved, the San Jose Creek Bridge Replacement project would be able to incorporate the portion of the multipurpose path that is underneath the bridge as a component of the bridge replacement construction plan. Construction of the new bridge and the multipurpose path underneath the bridge could be built by a single construction crew.

2.1.2 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 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. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic

properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement among the Federal Highway Administration, the Advisory Council of Historic Preservation, the California State Historic Preservation Officer, and the Department went into effect for Department projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory County on Historic Preservation's regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The Federal Highway Administration's responsibilities under the Programmatic Agreement have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 U.S. Code 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code Section 5024.1 established the California Register of Historical Resources and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the California Register of Historical Resources and, therefore, a historical resource. Historical resources are defined in Public Resources Code Section 5020.1(j). In 2014, Assembly Bill 52 added the term "tribal cultural resources" to CEQA; Assembly Bill 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 Public Resources Code Section 21074(a), a tribal cultural resource is a California Register of Historical Resources 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 Public Resources Code Section 21083.2.

Public Resources Code Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the National Register of Historic Places listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way.

Affected Environment

Discussion of this section is based on the Cultural Resource Review that was completed for this project on September 10, 2018.

Letters were sent out to regional Native American tribal groups as part of Section 106 consultation and formal notification required under Assembly Bill 52 on December 19, 2018.

The project is within a highly developed area that has been highly disturbed and changed several times and has been subject to regular maintenance as a state-owned property. A review of cultural resource documentation on state file revealed that the project area had previously been surveyed with a negative result for cultural resources. A field survey conducted as part of the Cultural Resource Review did not detect the presence of any archaeological or cultural resource on the surface of the project area. The cultural survey did confirm a substantial level of disturbance at the project site from past construction activities, which suggest a low probability for intact subsurface archaeological deposits.

The existing southbound bridge was built in 1946 and widened in 1989. The existing northbound bridge was built in 1961 and widened in 1989. The existing San Jose Creek Bridge was determined to be a Category 5 bridge under Caltrans' Statewide Historic Bridge Inventory and is not considered to be an historic resource. The existing bridge is not eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.

No built cultural environment or cultural resources were identified adjacent to the project site.

Environmental Consequences

An invitation for consultation as part of Section 106 was offered and no formal consultation has been requested by recipients.

The Cultural Resource Review completed for the project found that the project would not affect cultural resources or historic properties.

The project does not have the potential to affect any cultural built environmental resources directly or indirectly.

Avoidance, Minimization, and/or Mitigation Measures

No cultural resource-related measures are required for the San Jose Creek Bridge Replacement project.

The project would include the following Caltrans' Standard Special Provisions that deal with the chance discovery of previously unknown cultural materials or human remains during project construction:

- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find.
- If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities would stop in any area or nearby area suspected to overlie remains, and the

county coroner would be contacted. If the remains are thought by the coroner to be Native American the coroner would notify the Native American Heritage Commission, who, pursuant to Public Resources Code Section 5097.98, would then notify the Most Likely Descendent. At this time, the individual who discovers the remains would contact the District 5 Environmental Branch, so they can work with the Most Likely Descendent on the respectful treatment and arrangement of the remains. Additional provisions of Public Resources Code Section 5097.98 must be followed as applicable.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains, unless it is the only practicable alternative. Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650, Subpart A.

To comply, the following must be analyzed:

Practicability of alternatives to any longitudinal encroachments.

Risks of the action.

Impacts on natural and beneficial floodplain values.

Support of incompatible floodplain development.

Measures to minimize floodplain impacts and preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by a flood or tide having a 1 percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

A location hydraulic study was completed for the project on November 6, 2018.

A revised location hydraulic study was completed for the project on February 4, 2020.

The San Jose Creek floodplain stretches from the foothills north of U.S. Route 101 to State Route 217, where the San Jose Creek joins the San Pedro Creek. The San Jose Creek joins the San Pedro Creek about 1.7 miles downstream from the project location.

The Federal Emergency Management Agency designates San Jose Creek as a floodway. This means that the channel's capacity to discharge floodwaters must be preserved to ensure that there are no developments on the floodway that could increase upstream flood elevations. The San Jose Creek floodway designation ends just downstream of the State Route 217 bridge. Based on the Federal Emergency Management Agency's Flood Insurance Study, dated November 4, 2015, the 100-year peak flood discharge is 5,400 cubic feet per second at the San Jose Creek Bridge.

The Federal Emergency Management Agency's Flood Insurance Rate Map (Appendix B) indicates that the San Jose Creek Bridge is within "Zone AE," which indicates that the project location is at high risk for flooding. Based on the mapping, the flood elevation is indicated to be 56 feet at the bridge location. Additionally, the project sits in an area that the Federal Emergency Management Agency designates as a Special Flood Hazard Area, where floodplain management regulations must be enforced.

Environmental Consequences

The project would replace the existing multi-span bridge with a single-span bridge at the existing location. The existing bridge columns in the channel and the concrete paving on the channel banks would be removed. Rock slope protection would be installed in place of the concrete paving to protect the creek banks from erosion (see Appendix C).

The project would improve the floodway because it would include the following design features:

The thickness of the new bridge deck would be similar to the existing bridge deck and would not decrease the distance between the bottom of the deck and the channel bottom.

Rock slope protection would be installed at a shallower slope, which would extend the creek banks and increase the cross-sectional area of the channel.

Removing the existing columns in the creek would reduce impediments in the channel and improve flow.

These design features are anticipated to reduce the flood elevation at the bridge location and reduce the chances of the bridge becoming inundated in a flood event.

The project would not encroach into the base floodplain and is not anticipated to have a significant impact on the existing floodplain or floodway.

Avoidance, Minimization, and/or Mitigation Measures

The project is not anticipated to adversely affect existing hydrology or floodplains. Therefore, no avoidance, minimization, or mitigation measures are anticipated for the project.

2.2.2 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 waters of the U.S. from any point source (any discrete conveyance such as a pipe or a human-made ditch) unlawful, unless the discharge complies with a National Pollutant Discharge Elimination System permit. This act and its amendments are known today as the Clean Water Act. 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 National Pollutant Discharge Elimination System permit scheme.

The following are important Clean Water Act 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 a permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state, confirming 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 National Pollution Discharge Elimination System, a permitting system for discharges of any pollutant into waters of the U.S., except dredged or fill material. Regional Water Quality Control Boards administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction sites and municipal separate storm sewer systems.

Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers.

The goal of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the nation’s waters.”

The U.S. Army Corps of Engineers 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 that are similar in nature and cause minimal environmental effects. Nationwide permits allow a variety of minor project activities, with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for Regional and Nationwide permits may be permitted under one of the U.S. Army Corps of Engineers’ Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. The U.S. Army Corps of Engineers’ decision to approve Individual

permits is based on compliance with the U.S. Environmental Protection Agency's Section 404 (b)(1) Guidelines (40 Code of Federal Regulations 230) and whether permit approval is in the public's best interest.

The Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers, allow the discharge of dredged or fill material into the aquatic system (i.e., waters of the U.S.) only if there is no practicable alternative with less adverse effects. The Section 404(b)(1) Guidelines state that the U.S. Army Corps of Engineers may not issue a permit if a "least environmentally damaging practicable alternative" to the proposed discharge is available that would have lesser effects on waters of the U.S. and no other significant adverse environmental consequences. According to the Section 404(b)(1) Guidelines, documentation is needed to confirm that a sequence of avoidance, minimization, and compensation measures has been followed, in that order.

The Section 404(b)(1) Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. (The U.S. Environmental Protection Agency defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall.")

In addition, every permit from the U.S. Army Corps of Engineers, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements (see 33 Code of Federal Regulations 320.4). A discussion of the "least environmentally damaging practicable alternative," if any, is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Water Quality Control Act (known as the 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 the beneficial uses of surface and/or groundwater in the state. It predates the Clean Water Act and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., such as groundwater and surface waters that are not considered waters of the U.S. In addition, it prohibits discharges of "waste," as defined; this definition is broader than the Clean Water Act definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by waste discharge requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and regulating discharges to ensure compliance with the standards. Details about water quality standards in a

project area are included in the applicable Regional Water Quality Control Board Basin Plan. In California, Regional Water Quality Control Boards designate beneficial uses for all water body segments in their jurisdictions, then set the 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 State Water Resources Control Board identifies waters that failed to meet standards for specific pollutants. These waters are then state listed in accordance with Clean Water Act Section 303(d). If the 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 (National Pollutant Discharge Elimination System permits or Waste Discharge Requirements), the Clean Water Act requires establishment of Total Maximum Daily Loads. Total Maximum Daily Loads 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 State Water Resources Control Board administers water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, Total Maximum Daily Loads, and National Pollutant Discharge Elimination System permits. Regional Water Quality Control Boards are responsible for protecting the beneficial uses of water resources within their jurisdiction by using their planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the Clean Water Act requires the issuance of National Pollutant Discharge Elimination System permits for five categories of stormwater discharges, including discharges from municipal separate storm sewer systems. A municipal separate storm sewer system 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 State Water Resources Control Board has identified Caltrans as an owner/operator of a municipal separate storm sewer system under federal regulations. Caltrans’ municipal separate storm sewer system permit covers all Caltrans’ rights-of-way, properties, facilities, and activities in the state. The State Water Resources Control Board or Regional Water Quality Control Boards issue National Pollutant Discharge Elimination System permits for 5 years, and permit requirements remain active until a new permit has been adopted.

Caltrans' municipal separate storm sewer system permit, Order Number 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order Number 2014-0006-EXEC (effective January 17, 2014), Order Number 2014-0077-DWQ (effective May 20, 2014), and Order Number 2015-0036-EXEC (confirmed 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) Best Management Practices, to the maximum extent practicable, and other measures the State Water Resources Control Board determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Stormwater Management Plan to establish stormwater pollution controls related to highway planning, design, construction, and maintenance throughout California. The Stormwater Management Plan 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. The Stormwater Management Plan describes the procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It also outlines procedures and responsibilities for protecting water quality, including through the selection and implementation of Best Management Practices. The proposed project would be programmed to follow the guidelines and procedures outlined in the latest Stormwater Management Plan to control stormwater runoff.

Construction General Permit

The Construction General Permit, Order Number 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order Number 2010-0014-DWQ (effective February 14, 2011) and Order Number 2012-0006-DWQ (effective on July 17, 2012), regulates stormwater discharges from construction sites with a disturbed soil area of 1 acre or more as well as smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activities, such as clearing, grading, and excavation, that result in soil disturbance totaling at least 1 acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to the Construction General Permit if there is potential for significant water quality impairment resulting from the activity, as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to develop Stormwater Pollution Prevention Plans; implement sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into risk levels 1, 2, and 3. Risk levels are determined during the planning and designing phases and are based on the potential for erosion and subsequent transport to receiving waters. Requirements are based on the determined risk level. For example, a risk level 3 project (highest risk) would require potential hydrogen and turbidity monitoring for stormwater runoff as well as aquatic biological assessments during specified seasonal windows before construction and after construction.

For all projects that are subject to the permit, applicants are required to develop and implement an effective Stormwater Pollution Prevention Plan. In accordance with Caltrans' Stormwater Management Plan and Caltrans' Standard Specifications, a Water Pollution Control Program is necessary for projects with a disturbed soil area of less than 1 acre.

Section 401 Permitting

Under Section 401 of the Clean Water Act, any project requiring a federal license or permit that may result in a discharge to waters of the U.S. must obtain Section 401 certification, which certifies that the project complies with state water quality standards. The most common federal permit that triggers a Section 401 permit certification is the Clean Water Act Section 404 permit issued by the U.S. Army Corps of Engineers. Section 401 permit certifications are obtained from the appropriate Regional Water Quality Control Board, depending on the project location, and are required before the U.S. Army Corps of Engineers issues a Section 404 permit.

In some cases, the Regional Water Quality Control Board may have specific concerns about discharges associated with a project. As a result, the Regional Water Quality Control Board may issue a set of requirements, known as Waste Discharge Requirements, under the State Water Code (Porter-Cologne Act) to define activities (such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals) that are to be implemented to protect or benefit water quality. Waste Discharge Requirements can be issued to address both the permanent and temporary discharges of a project.

Affected Environment

A water quality assessment was completed for the project on July 6, 2018.

The project would occur in the city of Goleta in Santa Barbara County. The San Jose Creek flows from north to south and originates within the Santa Ynez Mountains. In the project area, the San Jose Creek travels under Calle Real and U.S. Route 101. South of the project site, the San Jose Creek is parallel to State Route 217 on the west until it merges with San Pedro Creek and Atascadero Creek, eventually flowing to the Pacific Ocean.

The portion of the San Jose Creek that is within the project footprint is regulated by the Central Coast Regional Water Quality Control Board and the Central Coast

Basin Plan. The San Jose Creek watershed is identified on the 2008 Central Coast Regional Water Quality Control Board 303(d) list for Total Maximum Daily Loads (priority schedule of impaired waters).

Environmental Consequences

The project would involve the demolition and new construction of the San Jose Creek Bridge on U.S. Route 101 and the installation of rock slope protection in the creek channel.

During demolition and construction, various project activities would occur above, next to, and within the creek bed. It is anticipated that construction-related activities would result in temporary and intermittent impacts on water quality as fugitive dust and materials may enter the creek. Construction activities are not anticipated to cause long-term impacts to water quality.

The project is not anticipated to cause long-term impacts to water quality because the project will incorporate Caltrans' Best Management Practices to protect water quality. Temporary Best Management Practices would be implemented before, during and after project construction. Permanent Best Management Practices would be implemented after project construction and as a component of the project. All construction work in the creek would be conducted when the channel is dry, when feasible, to avoid impacts to water quality.

The project not anticipated to cause long-term negative impacts to water quality. The project will install rock slope protection to prevent erosion during high-flow storms and provide a benefit to water quality.

The San Jose Creek Bridge Replacement project is not anticipated to change the existing water discharge rates or water discharge patterns in the San Jose Creek because the new bridge design would be similar to the existing bridge design. The creek's alignment would not be changed after the project is complete.

Project construction is anticipated to cause approximately 0.92 acre of disturbed soil, which takes into consideration construction access routes, bridge demolition and construction areas, excavation areas, and potential contractor storage/staging areas. Based on the quantity of disturbed soil, the project may be required to incorporate permanent treatment or structural Best Management Practices into the project design. Any potential impacts to water quality would be addressed, eliminated, or minimized to the maximum extent possible by incorporating the appropriate permanent and temporary Best Management Practices along with Caltrans' standard measures and plans into the project.

Avoidance, Minimization, and/or Mitigation Measures

To minimize impacts to water quality and stormwater runoff, the following measures would be implemented:

1. The project would implement the following Best Management Practices:
 - a) Job site management
 - b) Preparation of a Water Pollution Control Program to determine the feasibility of incorporating permanent treatment or structural Best Management Practices into the final project design
 - c) Temporary Best Management Practices would include, but would not be limited to, the following:
 - i. Hydraulic mulch
 - ii. Check dams
 - iii. Drainage inlet protection
 - iv. Fiber rolls
 - v. Stabilized construction entrance
 - vi. Designated concrete washout
 - vii. Environmentally Sensitive Area fencing
2. The project will implement appropriate Caltrans' Standard Specification and Caltrans' Standard Special Provisions pertaining to water quality and water pollution control.

2.2.3 Geology, Soils, Seismicity and 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.

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. Structures are designed using Caltrans' Seismic Design Criteria. The Seismic Design Criteria provide the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification

determine its seismic performance level and the methods used for estimating seismic demands and structural capabilities. For more information, please see Caltrans' Division of Engineering Services, Office of Earthquake Engineering, and Seismic Design Criteria.

Affected Environment

A preliminary geotechnical report was prepared for the project on August 19, 2016.

Regional Geology and Seismicity

The project area is on the Goleta coastal alluvial plain and is near the Dos Pueblos Canyon and the Santa Barbara plains. The Goleta plain is in the western Transverse Ranges, along an east/west-trending segment of the Southern California coastline. The coastal plain, which has a low elevation, slopes gently seaward from the Santa Ynez Mountains (to the north) to the Santa Barbara Channel to the south.

The Santa Barbara coastal plain area is dominated by the Santa Barbara fold and fault belt and the overlapping Santa Ynez Mountains uplift. The Santa Barbara belt is an east/west-trending zone of potentially active folds and faults that spans the entire coastal plain, then widens to the northwest as it continues into the lower southern part of the Santa Ynez Mountains. The coastal plain includes several mesas and hills with potentially active folds and partially buried faults from the Santa Barbara fold and fault belt.

The project is not on a known fault line. However, there are multiple known faults found in the region. The project site is about 1.3 miles south-southwest of the San Jose Fault, 1.4 miles north of the More Ranch Fault, 2.1 miles northwest of the Mission Ridge-Arroyo Parida-Santa Ana Fault, 3.6 miles north-northeast of the Ventura-Pitas Point Fault, and 3.7 miles north of the Red Mountain Fault.

Site Conditions

The project area is covered by Holocene and upper Pleistocene alluvium and colluvium, which consists mostly of a mix of silt, sand, and gravel deposits as a result of drainage, alluvial fans, and floodplains. The deposits are believed to be found under much of the Goleta and Santa Barbara areas. Geomorphic surfaces underlain by alluvium and colluvium commonly contain soil profiles that have weak to moderate erosion potential. The thickness of alluvial and colluvium deposits is generally up to 35 feet.

Two soil units cover the project site: the Elder sandy loam at 21.2 percent and the Elder-Soboba complex at 78.8 percent. The Elder sandy loam soils are alluvial fan deposits. These soils are well-drained and have low runoff, high permeability, and a slight erosion hazard. The Elder-Soboba complex consists of two components: Elder sandy loam soil and Soboba soil. The Soboba soil consists of valley deposits, with coarse stony and gravelly alluvium from sandstone. These soils contain stony loam

sand and very gravelly sand. These well-drained soils have medium runoff, high permeability, and a slight erosion hazard.

The groundwater elevation within the project area is between 29.9 feet and 38.8 feet. The ground shaking potential of the project area is classified as “strong.” Due to the soil composition and shallow groundwater elevation within the project area, the potential for liquefaction is minimal.

Past investigations have determined that the subsurface materials within the project site contain loose sand and are considered a corrosive material. Further investigations would be conducted to better determine the presence of corrosive subsurface materials before project construction. The project would adopt appropriate design elements that would protect the new bridge from corrosive materials.

Environmental Consequences

Although the project area would experience strong seismic ground shaking in the event of a large earthquake, the project would be designed according to Caltrans’ Seismic Design Criteria, as provided in the Highway Design Manual, that would minimize the potential risk to construction workers and the traveling public in the event of such an earthquake.

There is a low risk for landslides because of the relatively flat topography of the project area, and because the project would not involve large cuts and fill, or steep excavation work. It is anticipated that earth-retaining and shoring systems would be used during earthwork to minimize unstable soils because of excavations.

Ground-disturbing earthwork associated with construction could increase soil erosion rates and the loss of topsoil. However, the potential for erosion would be minimal because of the types of soil in the project area. The Best Management Practices described in Section 2.2.2, Water Quality and Stormwater Runoff, would further minimize erosion and the loss of topsoil.

The project would limit the amount of earthwork necessary to complete the project.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented for the project to avoid and or minimize potential impacts:

1. The project would minimize the amount of soil disturbance necessary to complete the project.
2. Additional subsurface investigation would be conducted before to project construction to identify subsurface conditions and to help determine appropriate final design elements required to protect the new bridge structure from potential geologic hazards.

2.3 Biological Environment

2.3.1 Natural Communities

Regulatory Setting

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, fish passage, 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.

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.

Affected Environment

The information and analysis contained in this section are based on the San Jose Creek Bridge Replacement Project Natural Environment Study prepared in March 2019. The Natural Environment Study included biological surveys that were conducted during appropriate survey seasons.

The biological study area for the project is defined as the area that may be directly, indirectly, temporarily, or permanently affected by construction and construction-related activities. The biological study area for the project occurs along U.S. Route 101 and San Jose Creek and is about 23 acres.

The biological study area occurs on a coastal plain at the base of the Santa Ynez Mountains, within the city of Goleta and just west of Santa Barbara. The Pacific Ocean is 1.6 miles south of the biological study area. The San Jose Creek watershed originates in the Santa Ynez Mountains. The upper source of the creek starts near San Marcos Pass and flows down the west side of the mountains; several small ephemeral streams merge into San Jose Creek along the way. The creek merges into a single main channel as it enters the coastal plain, about 1 mile upstream of the biological study area.

Within the biological study area are several natural communities mixed together. Major natural community types found within the biological study area are described individually below.

Coast Live Oak Woodland (Quercus agrifolia Woodland Alliance)

This community contains coast live oak with more than 50 percent of relative cover in the tree canopy. Within the biological study area, coast live oak woodland can be

found in various locations along the U.S. Route 101 right-of-way. Approximately 0.7 acre of this community occurs in the biological study area.

Black Cottonwood (Populus trichocarpa)

This community contains black cottonwood with more than 50 percent of relative cover in the tree layer. This community can be found in the biological study area in the San Jose Creek south of U.S. Route 101. Associated species include the arroyo willow (*Salix lasiolepis*) and the Southern California black walnut (*Juglans californica*). This community also supports high-quality habitat for various raptors. Approximately 0.14 acre of the community occurs in the biological study area.

Arroyo Willow Thickets (Salix lasiolepis Shrubland Alliance)

The community is characterized as arroyo willow with more than 50 percent of relative cover in the shrub or tree canopy. In this community, arroyo willow is the dominant species in the overstory. This community can be found in the riparian corridor of the San Jose Creek, and upstream and downstream of the existing U.S. Route 101 bridge. Associated species include the western sycamore (*Plantanus racemosa*) and the tall flatsedge (*Cyperus eragrostis*). This community supports high-quality habitat for various nesting birds and other species that frequent riparian habitats, such as raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), and Virginia opossums (*Didelphis virginiana*). Approximately 0.1 acre of this community occurs in the biological study area.

Sandbar Willow Thickets (Salix exigua Shrubland Alliance)

This community is characterized as sandbar willow with more than 50 percent of relative cover. This community can be found on the northwest side of the San Jose Creek, next to the U.S. Route 101 northbound bridge. This community supports high-quality habitat for various nesting birds and other species that frequent riparian habitats. Approximately 0.02 acre of this community occurs in the biological study area.

California Sycamore Woodland (Platanus racemosa Woodland Alliance)

This community is characterized as the California sycamore with more than 30 percent of relative cover in the tree canopy. This community can be found in the biological study area in the San Jose Creek, and north and south of U.S. Route 101. Associated species include the arroyo willow and the Douglas nightshade (*Solanum douglasii*). This community supports high-quality habitat for various raptors. Approximately 0.3 acre of this community occurs in the biological study area.

Eucalyptus Groves (Eucalyptus ssp. Woodland Semi-Natural Alliance)

This community contains eucalyptus with more than 80 percent of relative cover in the tree layer. Species found on-site include blue gum (*Eucalyptus globulus*) and lemon gum (*Eucalyptus citriodora*). Within the biological study area, these trees occur on the shoulders of U.S. Route 101 and have very large, extensive canopies

that often cover the vegetation below. Eucalyptus groves may provide perching and nesting habitat for various bird species. Approximately 1.56 acres of eucalyptus groves occur in the biological study area.

Giant Reed Series (Arundo donax Herbaceous Semi-Natural Alliance)

The giant reed series is described as having more than 60 percent of relative cover in the herbaceous and shrub layers. This community is typically found in riparian areas, along low-gradient streams and ditches, or in marshes. The California Invasive Plant Council considers the giant reed series an invasive species. Within the biological study area, this community is found on the south side of U.S. Route 101, along the margins of the San Jose Creek. This dense, tall community is about 5 feet to 9 feet high and almost completely composed of the giant reed series, which might support foraging habitat for various bird species and wildlife. Approximately 0.27 acre of the giant reed series occurs in the biological study area.

Ruderal/Disturbed Vegetation

Ruderal/disturbed vegetation occurs in areas that are subjected to frequent disturbance. For example, it occurs on the edges of pavement where vehicle impacts have compacted the soil. It also occurs in the mowed and maintained portions of Caltrans' rights-of-way where small amounts of annual non-native grassland are interspersed with roadside plantings. Ruderal/disturbed vegetation in the biological study area is dominated by weedy species such as Canadian horseweed (*Erigeron canadensis*), ripgut brome (*Bromus diandrus*), slender wild oat (*Avena barbata*), and wild radish (*Raphanus sativus*). These species are subjected to routine disturbance from vehicles and mowing. They typically do not support habitat for sensitive species. Approximately 2.47 acres of ruderal/disturbed vegetation occur in the biological study area.

Ornamental Vegetation

These mostly exotic landscape plantings consist of trees and shrubs that would not occur, naturally. However, ornamental vegetation occurs along U.S. Route 101 and within the biological study area. The species include silk oak (*Grevillea robusta*), spider gum (*Eucalyptus conferruminata*), Chinese elm (*Ulmus parvifolia*), toyon (*Heteromeles arbutifolia*), Santa Cruz Island ironwood (*Lyonothamnus floribundus* ssp. *aspleniifolius*), silverleaf cotoneaster (*Cotoneaster pannosus*), and oleander (*Nerium oleander*). Ornamental vegetation may support nesting opportunities for birds and roosting opportunities for bats, but it typically does not support habitat for other sensitive species. Santa Cruz Island ironwood and toyon are native species. Silk oak and silverleaf cotoneaster are considered invasive species by the California Invasive Plant Council. Approximately 4.44 acres of ornamental vegetation occur in the biological study area.

Intermittent Stream

The intermittent stream channel in the San Jose Creek is a habitat feature, defined as the area of the creek contained by the ordinary high-water mark within the biological study area. From about 229 feet upstream of the U.S. Route 101 northbound bridge to just a few feet past the U.S. Route 101 southbound bridge, the banks of the San Jose Creek are lined with concrete paving; the center is an incised stream channel. This channel is filled with coarse sand and, seasonally, with sparse vegetation. Sand bar willow (*Salix exigua* var. *hindsiana*), tall flatsedge (*Cyperus eragrostis*), and willow herb (*Epilobium ciliatum* ssp. *ciliatum*) grow here during summer and fall and when the creek has no surface water. Short-duration high-velocity flows in the winter tend to clear the incised channel of vegetation. The intermittent stream channel in the biological study area supports migration habitat for steelhead trout when the creek is flowing and provides a migration corridor for urban wildlife. Approximately 0.3 acre of intermittent stream occurs in the biological study area.

Habitat Connectivity and Migration

Native terrestrial wildlife may use the San Jose Creek as a highway undercrossing. Passerine birds use the riparian corridor of the San Jose Creek for migration, foraging, and nesting. However, no birds were seen nesting in trees or under the U.S. Route 101 bridge within the biological study area.

Fish migration may be possible along the San Jose Creek from the Pacific Ocean to the bedrock waterfall, which is approximately 3.70 miles upstream from the U.S. Route 101 bridge. This waterfall is about 30 feet high and serves as a natural barrier to fish. The passage quality for fish in the San Jose Creek is at its highest during the wet season, when there are potential outflows to the Pacific Ocean that allow for fish in-migration and out-migration.

Within the project limits, the California Fish Passage Assessment Database identifies the San Jose Creek channel below the U.S. Route 101 bridge as “Not a Barrier.” Caltrans’ hydraulics unit completed a fish passage analysis for the project and determined that the existing U.S. Route 101 bridge does not negatively affect fish passage conditions along the San Jose Creek and is not considered a fish barrier.

Environmental Consequences

The project would cause temporary and permanent impacts to natural communities identified in the project area. During project construction, vegetation removal and tree trimming would be required to provide access and clearance for equipment and personnel. Most of the vegetation removal would occur in areas next to the existing bridge and creek, in areas used for construction storage and staging, and along the roadway shoulders. The project would also remove the median planters just east and west of the bridge. The project would limit the level of disturbance to natural

communities by limiting the number of access routes and staging/storage areas required for project completion.

The project is estimated to result in temporary impacts on the following communities: 0.21 acre of coast live oak woodland, 0.10 acre of black cottonwood forest, 0.03 acre of arroyo willow thickets, 0.17 acre of California sycamore woodland, 0.02 acre of sandbar willow thickets, 0.15 acre of eucalyptus groves, and 0.79 acre of ornamental vegetation. Temporary impacts would mostly because by temporary access routes and temporary staging/storage sites required during construction.

The project would result in permanent impacts to the following communities: 0.003 acre of California sycamore woodland, 0.27 acre of giant reeds and 0.63 acre of ruderal/disturbed vegetation. Permanent impacts to California sycamore and giant reeds would result from the installation of rock slope protection in the creek channel. Permanent impacts to ruderal/disturbed vegetation would result from retaining wall work and roadway repaving. Although the project would cause permanent impacts, the impacts would be perceived as a benefit because they would remove invasive and weedy species.

The project would result in temporary and permanent impacts to the San Jose Creek channel. Temporary impacts would result from the removal of the existing bridge abutments and columns, and the removal of concrete paving found on the embankments and in the creek. Permanent impacts would result from the installation of the new bridge abutments and rock slope protection. However, project impacts to the San Jose Creek channel are anticipated to cause a net benefit. Removing the existing bridge columns would improve channel flow and remove barriers to fish passage. Installing rock slope protection would directly replace the concrete paving. Rock slope protection is anticipated to be more beneficial to the San Jose Creek than paved concrete because it improves permeability and the potential for revegetation.

Migration and Travel Corridors

The project have the potential to temporarily affect the passage of native terrestrial wildlife in the project area. In the daytime, when construction activity and noise are present, most wildlife species would be discouraged from entering the area under the bridge. Although many wildlife species are nocturnal, construction debris, parked equipment, or other project-related items around the bridge may still obstruct wildlife passage at night.

The project would maintain the existing fish passage characteristics of the channel below U.S. Route 101 and the natural bottom along the streambed. The existing and post-construction conditions meet the high-flow and low-flow fish passage criteria for young salmonids. The conditions also meet the high-flow fish passage criteria for adult salmonids. However, the depth for adult salmonids is slightly below the recommended 1 foot for low-flow conditions. According to the Caltrans fish passage analysis, the un-grouted rock slope protection proposed for the channel banks would

not affect fish passage because the water surface elevations would not rise high enough to contact these surfaces during fish passage.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to avoid and/or minimize potential impacts as a result of project-related activities:

1. Environmentally Sensitive Area fencing, or flagging, will be installed around the anticipated maximum boundary of the project's working limits required for project completion in order to prevent unnecessary disturbances to habitats and vegetation within the project area.
2. Special provisions for the installation of Environmentally Sensitive Area fencing or flagging will be included in the construction contract and identified in the project plans. Prior to the start of construction activities, Environmentally Sensitive Areas will be delineated in the field and approved by qualified Caltrans environmental division staff.
3. Impacts to native species will require the project to conduct restoration plantings onsite. Restoration plantings will consist of native species appropriate for the project area.

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 the Clean Water Act (33 U.S. Code 1344), is the main law that regulates wetlands and surface waters. One purpose of the Clean Water Act 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, in the absence of adjacent wetlands. When adjacent wetlands are present, Clean Water Act jurisdiction extends beyond the ordinary high-water mark to the limits of the adjacent wetlands. To classify wetlands for the purposes of the Clean Water Act, 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 Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that a discharge of dredged or fill material cannot be permitted if a practicable alternative exists that would be 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 U.S. Army Corps of Engineers, with oversight by the U.S. Environmental Protection Agency.

The U.S. Army Corps of Engineers 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 that are similar in nature and cause minimal environmental effects. Nationwide permits 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 a Nationwide Permit may be permitted under one of the U.S. Army Corps of Engineers' Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with the U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (40 Code of Federal Regulations 230) and whether permit approval is in the public's best interest. The Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers, allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative with less adverse effects. The Section 404(b)(1) Guidelines state that the U.S. Army Corps of Engineers may not issue a permit if a "least environmentally damaging practicable alternative" to the proposed discharge is available that would have lesser effects on waters of the U.S. and no other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, Executive Order 11990 states that a federal agency, such as the Federal Highway Administration and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction 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 Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board, the Regional Water Quality Control Boards, and the California Department of Fish and Wildlife. In certain circumstances, the California Coastal Commission (or the 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 a river, stream, or lake or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The California Department of Fish and Wildlife

jurisdictional limits are usually defined by the top of the stream or lake bank or the outer edge of riparian vegetation, whichever is wider. Wetlands under U.S. Army Corps of Engineers jurisdiction may or may not be included in the area covered by the Lake or Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

The Regional Water Quality Control Boards were established under the Porter-Cologne Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements and may be required even when the discharge is already permitted or exempt under the Clean Water Act. In compliance with Section 401 of the Clean Water Act, the Regional Water Quality Control Boards also issue water quality certifications for activities that may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. See the Water Quality section for more details.

Affected Environment

The information and analysis contained in this section are based on the San Jose Creek Bridge Replacement Project Natural Environment Study prepared by Caltrans in March 2019.

A Jurisdictional Waters Assessment was done as part of the Natural Environment Study and is based on the review of relevant literature and a thorough on-site investigation to determine the presence of three parameters within the study area: aquatic vegetation, saturated soil, and wetland hydrology. The delineation method used was conducted in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Arid West Region*. (U.S. Army Corps of Engineers 2008)

A delineation of the ordinary high-water mark was made in the biological study area on July 11, 2018. Potential jurisdictional areas identified in the biological study area included the San Jose Creek and a concrete-lined perennial drainage that runs from Calle Real to San Jose Creek. A total of 0.369 acre of potential Clean Water Act “other waters” was delineated within the biological study area. Three-parameter Clean Water Act wetlands do not occur in the biological study area. A total of 1.4 acres fall within Regional Water Quality Control Board and California Department of Fish and Wildlife jurisdiction. A map of jurisdictional water areas within the project vicinity is shown in Appendix D.

The biological study area is outside the coastal zone and is not under the jurisdiction of the California Coastal Commission.

Environmental Consequences

The project would cause temporary impacts on jurisdictional U.S. Army Corps of Engineers “other waters.” The project would cause temporary and permanent

impacts on California Department of Fish and Wildlife and Regional Water Quality Control Board jurisdictional areas.

The project would temporarily affect the following: 0.182 acre of U.S. Army Corps of Engineers Clean Water Act “other waters;” 0.742 acre of Regional Water Quality Control Board jurisdiction; and 0.742 acre of California Department of Fish and Wildlife jurisdiction. These impacts are anticipated to be the result of direct and indirect effects from project activities that would occur within the project site.

The project would permanently affect 0.042 acre of Regional Water Quality Control Board jurisdiction and 0.042 acre of California Department of Fish and Wildlife jurisdiction. Permanent impacts would be caused by the addition of rock slope protection to a small portion of the creek bank downstream of the new bridge. Permanent impacts would occur in areas with mostly exotic and invasive species and a very small area of California sycamore woodland.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to avoid and minimize potential impacts on jurisdictional and wetland areas resulting from the project:

1. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing, or flagging will be installed around jurisdictional waters as well as the dripline of any trees that are to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas will be noted on design plans and delineated in the field prior to the start of construction activities.
2. During construction, all project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept on-site by the contractor at all times during construction.
3. During construction, erosion control measures will be implemented. Appropriate temporary Best Management Practices will be installed as needed between the project site and jurisdictional “other waters” and riparian habitat. At a minimum, erosion controls will be maintained by the contractor daily throughout the construction period.
4. During construction, cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will either be a minimum of 100 feet from aquatic areas or, if the area is less than 100 feet from aquatic areas, surrounded by barriers or secondary containment items (e.g., fiber rolls or equivalent). The staging areas will conform to the Best Management Practice applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles will be checked and maintained by the contractor daily to ensure proper operation and avoid potential leaks or spills.

5. Habitat restoration and native re-plantings will be required for the project. It is anticipated that compensatory mitigation can occur entirely within the project site, consisting of native plants appropriate to the project area. Plant restoration is proposed at a 1 to 1 ratio for acreage of temporary and permanent impacts. It is anticipated that a 3 to 1 replacement ratio would be required for impacts to riparian trees. A plant establishment period will be required as part of the replanting process.

2.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife 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 Federal Endangered Species Act and/or the California Endangered Species Act. See Section 2.3.5, Threatened and Endangered Species, for detailed information about those species.

This section of the document discusses all other special-status plant species, including California Department of Fish and Wildlife species of special concern, U.S. Fish and Wildlife Service candidate species, and California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at 16 U.S. Code 1531, et seq. (see also 50 Code of Federal Regulations 402). The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found in California Fish and Game Code Sections 1900—1913, and the California Environmental Quality Act, found in California Public Resources Code Sections 21000—21177.

Affected Environment

The information and analysis contained in this section are based on the San Jose Creek Bridge Replacement Project Natural Environment Study prepared by Caltrans in March 2019.

Floristic botanical surveys were completed in the biological study area on April 20, June 18, July 11, and September 11, 2018. The surveys consisted of walking a meandering strip of land within the project limits where all areas could be visually inspected.

Potential habitat occurs within the biological study area for the following special-status plant species: marsh sandwort (*Arenaria paludicola*), Santa Barbara morning-glory (*Calystegia sepium* ssp. *binghamiae*), southern tarplant (*Centromadia parryi* ssp. *Australis*), Gambel's watercress (*Nasturtium gambelii*), and Hoffmann's bitter gooseberry (*Ribes amarum* var. *hoffmannii*). However, no special-status plant species were seen during the surveys.

The Southern California black walnut (*Juglans californica*) is identified as a species of interest and was found in the biological study area. The Southern California black walnut was often used in the early 1900s as a disease-resistant rootstock for commercial farming of the Persian walnut (*Juglans regia*). The city of Goleta once had a thriving walnut industry and was the walnut capital of the U.S. It is common to find the Southern California black walnut along the banks of creeks throughout the central coast and parts of Santa Barbara County. The Southern California black walnut found in the San Jose Creek is likely an escaped migrant and should not be considered native to the biological study area.

Environmental Consequences

Although potential habitat occurs within the biological study area for several special-status plant species, the habitat areas are marginal. No special-status plant species were seen during field surveys, and none are anticipated to occur within the project area. Therefore, the project is not anticipated to affect any special-status plant species.

Based on a lack of suitable habitat and no observations during appropriately timed floristic surveys, the Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on the following federally listed plant species:

- Marsh sandwort (*Arenaria paludicola*)
- Salt marsh bird's-beak (*Cordylanthus maritimum* ssp. *maritimum*)
- Contra Costa goldfields (*Lasthenia conjugens*)
- Gambel's watercress (*Nasturtium gambelii*)

Critical habitat for these federally listed plant species would not be affected.

Avoidance, Minimization, and/or Mitigation Measures

The project is not anticipated to impact plant species. No avoidance, minimization, and/or mitigation measures are proposed for plant species.

2.3.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts on wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service and the California Department of Fish and Wildlife are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals that are not listed or proposed for listing under the Federal Endangered Species Act or the California Endangered Species Act. Species that are listed or proposed for listing as threatened or endangered are discussed in Section 2.3.5, Threatened and Endangered Species. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and species of special concern and U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

National Environmental Policy Act

Migratory Bird Treaty Act

Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

California Environmental Quality Act

Sections 1600–1603 of the California Fish and Game Code

Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

The information and analysis contained in this section are based on the San Jose Creek Bridge Replacement Project Natural Environment Study prepared by Caltrans in March 2019.

The biological study area includes potential habitat for several special-status animal species that include the following:

Monarch butterfly (*Danaus plexippus*)

Southern California steelhead (*Oncorhynchus mykiss irideus*)

California red-legged frog (*Rana draytonii*)

Coast Range newt (*Taricha torosa*)

Northern California legless lizard (*Anniella pulchra*)

Western pond turtle (*Emys marmorata*)

Coast horned lizard (*Phrynosoma blainvillii*)

Two-striped garter snake (*Thamnophis hammondi*)

Cooper's hawk (*Accipiter cooperii*)

Southwestern willow flycatcher (*Empidonax traillii extimus*)

Least Bell's vireo (*Vireo bellii pusillus*)

Other nesting birds (*class Aves*)

Pallid bat (*Antrozous pallidus*)

Western mastiff bat (*Eumops perotis californicus*)

Western red bat (*Lasiurus blossevillei*)

Yuma myotis (*Myotis yumanensis*)

San Diego desert woodrat (*Neotoma lepida intermedia*)

Although there are suitable and marginal habitats for special-status animal species within the biological study area, none were seen in the biological study area during field surveys. However, special-status animal species have the potential to occur in the biological study area during construction, given the presence of potential habitat.

Based on a lack of suitable habitat and no observations during field surveys, the Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on the following federally listed animal species:

Vernal pool fairy shrimp (*Branchinecta lynchi*)

Tidewater goby (*Eucyclogobius newberryi*)

Marbled murrelet (*Brachyramphus marmoratus marmoratus*)

Western snowy plover (*Charadrius alexandrinus nivosus*)

Light-footed Ridgway's rail (*Rallus obsoletus levipes*)

California least tern (*Sterna antillarum browni*)

The following discussions are limited to species that could potentially be present in the biological study area and/or have the potential to be affected by the project.

Because of their threatened and/or endangered status, the following animal species are discussed in Section 2.3.5, Threatened and Endangered Species: Southern California steelhead, California red-legged frog, southwestern willow flycatcher, and least Bell's vireo.

Coast Range Newt

The Coast Range newt is known to occur along coastal drainages, from Mendocino County to San Diego County. The portion of the San Jose Creek that occurs in the biological study area is unlikely to provide surface water that lasts long enough for the aquatic life cycle of this species, and upland areas in the vicinity are highly developed. However, there are California Natural Diversity Database records of the

species in the upper watershed and nearby creeks; therefore, the Coast Range newt's presence cannot be ruled out.

Northern California Legless Lizard

The Northern California legless lizard occurs in moist, warm, loose soil with plant cover. It also occurs in sparsely vegetated areas in beach dunes, chaparrals, pine-oak woodlands, desert scrubs, and stream terraces with native tree cover. Potentially suitable habitat was found in the biological study area.

Western Pond Turtle

The western pond turtle occurs in quiet waters, including ponds, lakes, streams, and marshes; it is typically found near the deepest parts. The portion of the San Jose Creek that is within the project limit does not provide a deep pool. Also, surface water in the creek may not last long enough to support the western pond turtle. However, the species has been recorded in nearby creeks and cannot be ruled out as absent.

Coast Horned Lizard

The coast horned lizard occurs in a variety of habitats but is usually found in lowlands along sandy washes with scattered low bushes. Potentially suitable habitat is present in the biological study area.

Two-Striped Garter Snake

The two-striped garter snake occurs in the coastal parts of California, from Salinas to Baja California, at elevations up to 7,000 feet. It is found along streams with rocky beds and a permanent source of freshwater. Within the biological study area, permanent aquatic habitat is present in the concrete perennial drainage ditch.

Cooper's Hawk

Cooper's hawk occurs in mostly open, interrupted, or marginal woodlands. It nests in riparian growths of deciduous trees and live oaks as well as canyon bottoms and river floodplains. Trees in the biological study area are potential suitable nesting habitat.

Other Nesting Birds

In addition to the individually described bird species, the biological study area contains many trees that are suitable for various other bird species. No nesting birds were seen in the biological study area during surveys but there is potential for future nesting.

Pallid Bat

The pallid bat occurs on rocky outcrops, cliffs, and crevices with access to open habitats for foraging. The pallid bat is also found near water and is often associated

with open, sparsely vegetated grasslands. Although the bridges at the project site do not have crevices or protected acute angles, the weep holes on the bridges may provide roosting locations for this species. No evidence of roosting was seen during daytime surveys.

Western Mastiff Bat

The western mastiff bat is found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrubs, grasslands, and chaparrals. It roosts in crevices in cliff faces, high buildings, trees, and tunnels. Although the bridges at the project site do not have crevices, trees in the biological study area could provide roosting locations for this species. No evidence of roosting was seen during daytime surveys.

Western Red Bat

The western red bat roosts mostly in trees, often in edge habitats next to streams, fields, or urban areas. Trees in the biological study area could provide roosting locations for this species. No evidence of roosting was seen during daytime surveys.

Yuma Myotis

The Yuma myotis occurs in a variety of habitats but is usually found close to standing water such as lakes and ponds. It roosts in caves, attics, buildings, mines and under bridges. Weep holes in the bridges of the project may provide roosting locations for this species. No evidence of roosting was seen during daytime surveys.

San Diego Desert Woodrat

The San Diego desert woodrat occurs from Baja California northward to northern San Luis Obispo County. It is typically found in woodlands and coastal scrub habitats. San Diego desert woodrats build nests in a variety of locations and are known to adapt to their local habitat. San Diego desert woodrats do not always use rock piles for nesting. Although no San Diego desert woodrat nests were found in the biological study area, the species could nest in the biological study area before construction starts.

Environmental Consequences

Special-status species that have the potential to be present during construction and may be affected by the project are discussed below.

Coast Range Newt, Western Pond Turtle, and Two-Striped Garter Snake

The Coast Range newt, the western pond turtle, and the two-striped garter snake are being addressed together because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

Project construction have the potential to injure or kill Coast Range newts, western pond turtles, or two-striped garter snakes if these animals are present during construction or present during the dewatering of the San Jose Creek. If it is required to capture and relocate these animals, they could be subjected to stresses that could cause adverse effects. Workers or construction equipment could injure or kill these animals by accidentally crushing them. Erosion and sedimentation could also occur, which could directly or indirectly affect water quality. The potential for impacts on these species is expected to be low because they were not found within the biological study area during surveys. However, this could change over time as each species expands its population and/or migrates through or colonizes the creek corridor.

Northern California Legless Lizard and Coast Horned Lizard

The Northern California legless lizard and the coast horned lizard are being addressed together because they have similar habitat requirements, project-related impacts, and avoidance and/or minimization measures.

Northern California legless lizards and coast horned lizards could be injured or killed if they are present during project construction. If it is required to capture and relocate these animals, they could be subjected to stresses that could cause adverse effects. Workers or construction equipment could injure or kill these animals by accidentally crushing them. The project is not anticipated to affect these species after avoidance and minimization measures are used.

Cooper's Hawk and Other Nesting Birds

Cooper's hawk and other nesting birds are being addressed together because they have similar habitat requirements, project-related impacts, and avoidance and minimization measures.

Removing and trimming vegetation and/or demolishing the existing bridge could directly impact active bird nests and any eggs or young birds living in the nests. Noise and other disturbances associated with construction activities could indirectly impact active bird nests and could change perching, foraging, and/or nesting behaviors. While temporary loss of vegetation that supports potential nesting habitat could occur, this would be mitigated by habitat restoration. The project is not anticipated to affect bird species after avoidance and minimization measures are used.

Pallid Bat, Western Red Bat, Yuma Myotis, and Other Bat Species

The pallid bat, the western red bat, the Yuma myotis, and other bat species are being addressed together because they have similar habitat requirements, project-related impacts, and avoidance and minimization measures.

The project could directly impact bats if they are roosting on the bridge before construction starts. Direct impacts could injure or kill bats or harass them to the point

where they would change their roosting behaviors. Noise and other disturbances associated with project construction could indirectly impact bats, which could also change their roosting behaviors. Implementing pre-activity surveys and exclusion measures would reduce the potential for adverse effects.

Although minor night work is expected to be a component of project construction, night work would occur only after trees near the U.S. Route 101 bridges are removed, and bats are excluded from the human-made bat box under the bridge on Calle Real. Any bats that may be roosting in trees outside of the project limits are unlikely to experience light and noise effects greater than those generated from normal traffic on U.S. Route 101 or in the surrounding urban area. Although there would be a temporary loss of service for bats that use the bat box under the bridge on Calle Real, nearby bridges would provide alternative roosting opportunities.

When trees are removed, and the bridges are replaced, there may be a temporary loss of roosting habitat if bats are present before construction starts. However, the bridges would be replaced, and new trees would be planted. Implementing bat exclusion netting may also temporarily remove roosting habitat until the new bridges are built.

San Diego Desert Woodrat

Although the project is not anticipated to impact the San Diego desert woodrat directly or indirectly, construction activities could disrupt, injure or kill them. Implementing avoidance, and minimization measures would reduce the potential for impacts.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to reduce potentially significant impacts to less than significant impacts under CEQA for special-status animal species.

Coast Range Newt, Western Pond Turtle, and Two-Striped Garter Snake

1. Prior to initiation of stream dewatering, Caltrans will conduct a worker environmental training program, including a description of the Coast Range newt, western pond turtle, and two-striped garter snake; their legal/protected status; their proximity to the project site; and avoidance/minimization measures to be implemented during the project.
2. Prior to construction, a biologist, determined qualified by Caltrans, will survey the biological study area and capture and relocate Coast Range newts, two-striped garter snakes, and western pond turtles, if present, to suitable habitat upstream within the biological study area. Observations of species of special concern or other special-status species will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion. If these species or other aquatic

species of special concern are observed during construction, they will likewise be relocated by a qualified biologist to suitable habitat outside the impact area.

Northern California Legless Lizard and Coast Horned Lizard

3. All excavation and vegetation removal within suitable habitat will be monitored by a qualified biologist. The qualified biologist will be on-site and monitoring during all new excavations and vegetation removal within suitable habitat.
4. Northern California legless lizards, coast horned lizards, or any species discovered during monitoring, excluding state or federal listed species, will be captured and relocated by the qualified biologist to suitable habitat outside the biological study area. Observations of species of special concern or other special-status species will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

Cooper's Hawk and Other Nesting Bird Species

5. If feasible, tree removal and trimming will be scheduled to occur from October 1 to January 31, outside of the typical nesting bird season, to avoid potential impacts to nesting birds. If it is not feasible to conduct this work outside of the nesting bird season, a nesting bird survey will be conducted by a qualified biologist no more than 14 days prior to the start of construction. If an active nest is found, a qualified biologist will determine an appropriate buffer, or a monitoring strategy based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy implemented until a qualified biologist has determined that the nest is no longer active.
6. It is recommended that bird nests be excluded from the existing bridge. Nesting bird exclusion methods may include, installation of thick plastic sheeting, one-way exclusion devices over drain holes, removing/knocking down nests before they contain eggs or nestlings, or other methods approved by California Department of Fish and Wildlife. The required time for installation of bird exclusion devices is outside of the nesting season (i.e., implement exclusion methods from October 1 to January 31).
7. During construction, active bird nests will not be disturbed and eggs or young of birds protected by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, destroyed, injured, or harassed at any time. If an active nest is found, a qualified biologist will determine an appropriate buffer using Environmentally Sensitive Area fencing or a monitoring strategy based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy implemented until a qualified biologist has determined that the nest is no longer active.

Pallid Bat, Western Red Bat, Yuma Myotis, and Other Bat Species

8. A qualified biologist will conduct a preconstruction survey of the Route 101 and Calle Real bridges for bat activity at least 14 days prior to construction. If any roosting bats or evidence of roosting is observed, exclusion devices will be installed over the roosting habitat when bats are not present.
9. At least 14 days prior to construction, the human-made bat box under the bridge on Calle Real will be covered with an exclusion device when bats are not present. The exclusion device will be removed at the completion of construction.
10. If tree removal is required during the bat maternity roosting season (February 15 to September 1), a bat roost survey will be conducted by a qualified biologist within 7 days prior to removal. If an active bat roost is found, Caltrans will coordinate with the California Department of Fish and Wildlife to determine an appropriate buffer, based on the habits and needs of the species. Readily visible exclusion zones will be established in areas where roosts must be avoided, using Environmentally Sensitive Area fencing. Work in the buffer area will be avoided until a qualified biologist has determined that roosting activity has ceased. Active bat maternity roosts will not be disturbed or destroyed at any time.
11. Compensatory Mitigation: The existing Route 101 bridges showed no signs that they supported roosting bats. Only a single nest for a cliff swallow was found; the nest could have been used by bats for roosting (although it was broken). No bat roosting habitat is anticipated to be permanently lost as a result of the project. Impacts on vegetation would be offset by replacement plantings within the project limits, which would also replace potential roosting habitat. No additional compensatory mitigation is proposed for bats.

San Diego Desert Woodrat

12. No more than 14 days prior to construction activities, a pre-construction survey will be conducted within the biological study area by a qualified biologist to determine the presence or absence of woodrat middens.
13. If woodrat middens are located during this survey, the qualified biologist will establish an Environmentally Sensitive Area with a 25-foot buffer around each midden. No project activities requiring grading, mechanized equipment or vehicles, or large crews will be allowed within the 25-foot protective buffer.
14. If project activities cannot avoid affecting the middens, then a qualified biologist will dismantle the middens by hand prior to grading or vegetation removal activities. The midden dismantling will be conducted such that the midden material is removed slowly while personnel look for young woodrats. The material will be placed in a pile at the closest undisturbed adjacent habitat but more than 50 feet from construction activities.

15. If young are encountered during midden dismantling, the dismantling activity will be stopped, and the material replaced back on the nest. The nest will be left alone, then rechecked in 2 to 3 weeks to see if the young are out of the nest or capable of being out on their own (as determined by a qualified biologist); once the young can fend for themselves, the nest dismantling can continue.

2.3.5 Threatened and Endangered Species

Regulatory Setting

The main federal law protecting threatened and endangered species is the Federal Endangered Species Act, found at 16 U.S. Code 1531, et seq. (see also 50 Code of Federal Regulations 402). This act, and later amendments, provides for the conservation of endangered and threatened species as well as the ecosystems upon which they depend. Under Section 7 of this act, agencies such as the Federal Highway Administration and Caltrans, as assigned, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions that are likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations that are critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a biological opinion, with an incidental take statement or a letter of concurrence. Section 3 of the Federal Endangered Species Act says that *take* means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect” or initiate any attempt at such conduct.

California has enacted a similar law at the state level, the California Endangered Species Act, found at California Fish and Game Code Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts on rare, endangered, and threatened species and develop appropriate planning to offset project-caused losses of listed species and their essential habitats. The California Department of Fish and Wildlife is the agency responsible for implementing the California Endangered Species Act. Section 2080 of the California Fish and Game Code prohibits take of any species that has been determined to be an endangered species or a threatened species. Section 86 of the California Fish and Game Code says that *take* means to “hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill.”

The California Endangered Species Act allows for take that is incidental to otherwise lawful development projects; for these actions, an incidental take permit is issued by the California Department of Fish and Wildlife. For species listed under both the Federal Endangered Species Act and the California Endangered Species Act and requiring a biological opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Wildlife may also authorize impacts on

California Endangered Species Act species by issuing a consistency determination under Section 2080.1 of the California Fish and Game Code.

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 U.S., 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

The information and analysis contained in this section are based on the San Jose Creek Bridge Replacement Project Natural Environment Study prepared by Caltrans in March 2019.

An updated U.S. Fish and Wildlife Service species list and an updated National Marine Fisheries Service species list was obtained for the project on March 11, 2020.

No federally designated critical habitat for federally listed plant species occurs within the biological study area.

No Essential Fish Habitat for federally managed species was identified within the project limits.

Federal Endangered Species Act Section 7 consultation with the National Marine Fisheries Service would be necessary for potential impacts to the Southern California steelhead and associated critical habitat.

Federal Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service would be necessary for potential impacts to the California red-legged frog and its associated habitat, the southern willow flycatcher, and least bell's vireo. It is anticipated that a Programmatic Biological Opinion for potential impacts to the California red-legged frog would be applicable for this project.

Southern California Steelhead and Critical Habitat

The Southern California steelhead is federally designated as an endangered species. The species is known to occur in cold-water anadromous streams and in coastal lagoons. The federal distinct population segment listing refers to runs in coastal basins from the Santa Maria River to the U.S./Mexico border.

Suitable habitat for the Southern California steelhead occurs in the San Jose Creek within the biological study area. However, none were seen during surveys along the

San Jose Creek. No surface water was present in the biological study area during multiple surveys from April 20 to October 25 in 2018. Surface water was present during one survey conducted on January 10, 2019.

Though Southern California steelheads are known to use the San Jose Creek, only a small amount of information on their presence is available. The habitat quality of the creek channel in the biological study area can be characterized as low, and the occurrence of surface water is seasonally limited. Based on the information available, the presence of young Southern California steelheads in the biological study area cannot be ruled out should water be present during construction. Southern California steelhead presence is inferred within the biological study area, but with an estimated low likelihood for presence.

The San Jose Creek also occurs within federally designated Southern California steelhead critical habitat, South Coast Hydrologic Unit 3315. Within the biological study area, the San Jose Creek was determined to support the Southern California steelhead, primary constituent element 3 (i.e., freshwater migration corridors free of obstruction). The concrete-lined slopes of the San Jose Creek under the U.S. Route 101 bridges are not a barrier to fish passage.

California Red-Legged Frog

The California red-legged frog is a federally threatened species. It is known to occur within aquatic habitats with little or no flow, or surface water, until early June. Within the biological study area and areas within dispersal distance to the biological study area, there is potentially suitable aquatic breeding and non-breeding habitat, dispersal habitat, and upland habitat. However, the biological study area is not close to known breeding habitats. Although the species was not seen during surveys, its presence cannot be ruled out.

Southwestern Willow Flycatcher

The southwestern willow flycatcher is a federal and state endangered species. It is known to live in woodlands in Southern California. For nesting, it requires dense riparian habitats. Habitat that is not suitable for nesting may be used for migrating and foraging. Marginal foraging and migration habitat may occur in the willow and cottonwood trees within the biological study area. However, these riparian trees are not suitable for nesting because of the lack of density and disturbances from the freeway. No critical habitat for this species occurs within the biological study area. The nearest record of a southwestern willow flycatcher is more than 24 miles away near the city of Buellton.

Least Bell's Vireo

Least Bell's vireo is a federal and state endangered species. It is known to occur within Southern California during the summer. It occurs in dense, low, shrubby vegetation in riparian areas near water or in dry river bottoms below 2,000 feet. Least bell's vireo nests along the margins of bushes or twigs of willow or mesquite.

Marginal foraging and migration habitat may occur in the willow trees upstream of the U.S. Route 101 bridges. However, these riparian trees are not suitable for nesting because they lack density and are exposed to loud noises from the freeway. No critical habitat for this species occurs within the biological study area. The nearest record of a least Bell's vireo is more than 24 miles away near the city of Buellton, near the Santa Ynez River.

Environmental Consequences

Based on the lack of suitable habitat and the lack of observations during appropriately timed floristic surveys, the Federal Endangered Species Act Section 7 effects determination is that the project would have no effect on the following federally listed plant species:

Marsh sandwort (*Arenaria paludicola*)

Salt marsh bird's-beak (*Cordylanthus maritimum* ssp. *maritimum*)

Contra Costa goldfields (*Lasthenia conjugens*)

Gambel's watercress (*Nasturtium gambelii*)

There would be no effect on critical habitat for these federally listed plant species.

Based on the lack of suitable habitat, the Federal Endangered Species Act Section 7 effects determination is that the project will have no effect on the following federally listed animal species:

Vernal pool fairy shrimp (*Branchinecta lynchi*)

Marbled murrelet (*Brachyramphus marmoratus*)

Tidewater goby (*Eucyclogobius newberryi*)

Western snowy plover (*Charadrius alexandrinus nivosus*)

Light-footed Ridgway's rail (*Rallus obsoletus levipes*)

California least tern (*Sterna antillarum browni*)

There would be no effect on federally designated critical habitat for these species.

Southern California Steelhead and Critical Habitat

Project construction activities could impact Southern California steelheads. Implementing a dewatering plan could cause take of individual Southern California steelhead or temporarily disrupt them within the biological study area. Work would be scheduled in the San Jose Creek channel during the dry season when water is not expected to be present in the creek. The dry season is typically from June to October. However, water may still be present in the creek channel during the dry season, which would require implementing a dewatering plan to allow for work in the creek. Therefore, impacts to Southern California steelheads cannot be ruled out.

The Federal Endangered Species Act Section 7 effects determination is that the project may affect and is likely to adversely affect the federally endangered Southern California steelhead. The basis for this determination is the inferred presence of the Southern California steelhead, which is based on available information. The potential for take of the species would exist during dewatering, capturing, and relocating activities. An unknown number of Southern California steelheads could be subjected to take, but the potential is expected to be low because of seasonally low-flow rates and low-quality habitat within the project limits.

For federally designated Southern California steelhead critical habitat, the Federal Endangered Species Act Section 7 effects determination found that the project may affect and is likely to adversely affect federally designated Southern California steelhead critical habitat. It is anticipated that 0.16 acre of critical habitat for the Southern California steelhead would be temporarily affected. The basis for this determination is that dewatering activities could temporarily disrupt Southern California steelhead dispersal; work in the creek bed could temporarily impact critical habitat for the Southern California steelhead. The extent of potential effects is estimated to be low and restricted to the dry season. However, no permanent impacts to Southern California steelhead critical habitat would occur in the San Jose Creek. There are no fish passage barriers currently at the project site, and the project would maintain the existing fish passage characteristics and natural streambed.

California Red-Legged Frog

The project could injure or kill California red-legged frogs if they are present during construction or during dewatering within the San Jose Creek. Capturing and relocating California red-legged frogs could subject them to stresses that could cause adverse effects. Workers or construction equipment could injure or kill California red-legged frogs by accidentally crushing them. In addition, erosion and sedimentation could occur, which could directly or indirectly affect water quality. Pre-construction surveys, construction monitoring, and capture and relocation would reduce any chance of take.

Permanent aquatic habitat in the perennial drainage that runs from Calle Real to the San Jose Creek would be affected by the project and could result in take and/or loss of service for the animals (if present). Although the placement of a check dam and a diversion pipe within a portion of the San Jose Creek could cause a temporary loss of aquatic habitat for the animals, such effects are estimated to be minor.

The Federal Endangered Species Act Section 7 effects determination found that the project may affect and is likely to adversely affect the California red-legged frog because the presence of the species cannot be ruled out. There would be a low, but possible potential for take of the species during dewatering and construction activities. The Federal Endangered Species Act Section 7 effects determination is that the proposed project will have no effect on California red-legged frog critical habitat, as none occurs within the biological study area.

Southwestern Willow Flycatcher and Least Bell's Vireo

Caltrans anticipates the bird nesting season to occur from February 1 to September 30. During construction, removing vegetation and demolishing the existing bridges could directly affect active bird nests and any eggs or young birds in the nests if avoidance and minimization measures are not implemented. Indirect impacts could also result from noise and disturbances associated with construction, which could alter perching, foraging, and/or nesting behaviors. Although the temporary loss of vegetation that supports potential nesting habitat could occur, this would be mitigated as part of the project's re-planting effort in response to impacts to natural communities. (Section 2.3.1) Implementing avoidance and minimization measures, such as appropriate timing for vegetation removal, pre-activity surveys, and exclusion zones, would reduce the potential for adverse effects on nesting bird species.

The Federal Endangered Species Act Section 7 effects determination found that the project may affect but is not likely to adversely affect the least Bell's vireo and the southwestern willow flycatcher because the riparian vegetation within the biological study area is unlikely to be suitable nesting habitat. However, the presence of both species cannot be ruled out because marginally suitable foraging habitat for them is present within the project area.

The project is not likely to adversely affect these species because avoidance, and minimization measures would be used to protect all nesting bird species that are protected by the Federal Endangered Species Act, the California Endangered Species Act, the Migratory Bird Treaty Act, and the California Fish and Game Code.

Implementation of avoidance and minimization measures would make the potential for effects insignificant (under the Federal Endangered Species Act Section 7 definitions) and discountable in that adverse effects would have very low chance of occurring. There would be no effect on critical habitat for the least bell's vireo or the southwestern willow flycatcher because none occurs in or near the biological study area. No take is anticipated to occur, and a California Department of Fish and Wildlife 2081 permit would not be required.

The southwestern willow flycatcher and the least Bell's vireo are also state listed taxa under the California Endangered Species Act. However, because these taxa are not expected to be encountered during construction, and measures would be implemented to avoid impacts to nesting birds, California Endangered Species Act compliance would not be required.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to reduce potentially significant impacts under CEQA to threatened and endangered species to less than significant.

Southern California Steelhead and Critical Habitat

The avoidance, minimization, and/or mitigation measures listed throughout Section 2.2 would reduce impacts on steelhead critical habitat.

The measures listed below would reduce impacts on the Southern California steelhead:

1. Prior to initiation of stream dewatering, a qualified biologist will conduct a worker environmental training program, including a description of steelhead, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating the Federal Endangered Species Act and permit conditions.
2. During construction, instream work, will be limited to the low-flow period, from June 1 and October 31, in any given year when surface water is likely to be at the seasonal minimum to avoid adult steelhead spawning migration and peak smolt migration. Deviations from this work window will be made only with permission from Caltrans and the relevant regulatory agencies.
3. A qualified biologist will be retained with experience in Southern California steelhead biology and ecology; aquatic habitats; biological monitoring, including dewatering; and capturing, handling, and relocating fish species. The biological monitor(s) will continuously monitor the placement and removal of any creek diversion and dewatering system to capture steelhead and other native fish species and relocate them to suitable habitat as appropriate. The monitor(s) will capture steelhead in the biological study area just prior to dewatering and any remaining stranded steelhead immediately after dewatering. Steelhead will be relocated to suitable habitat upstream of the work area, using methods approved by the appropriate regulatory agencies. This may include, but not necessarily be limited to, seine-netting, dip-netting, providing aerated water in buckets for transport, and ensuring adequate water temperatures during transport. The biologist will note the number of steelheads observed in the affected area, the number of steelheads captured and relocated, and the date and time of the collection and relocation.
4. During instream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes will be completely screened with no larger than $\frac{3}{32}$ -inch (2.38-millimeter) wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumped water will be directed through a silt filtration bag and/or into a settling basin, allowing the suspended sediment to settle out prior to re-entering the stream(s) outside of the isolated area.
5. When the biological monitors are on-site, they will monitor erosion and sediment controls to identify and correct any conditions that could adversely affect steelhead or steelhead habitat. The biological monitors will be granted

the authority to halt work activity as necessary and recommend measures to avoid/minimize adverse effects on steelhead and steelhead habitat.

6. Vibration and oscillation of piles will be used to the greatest extent feasible to install piles and reduce the need for hammer driving.

California Red-Legged Frog

7. Only U.S. Fish and Wildlife Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
8. Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.
9. A U.S. Fish and Wildlife Service-approved biologist will survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and the individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat where they will not be affected by the activities associated with the project. The relocation site will be in the same drainage to the extent practicable. Caltrans will coordinate with U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.
10. Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, with a qualified person on hand to answer any questions.
11. A U.S. Fish and Wildlife Service-approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, Caltrans will designate a person to monitor on-site compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist will ensure this monitor receives the training outlined above regarding the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and U.S. Fish and Wildlife Service during review of

the proposed action, that person will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring that all actions that are causing the effects be halted. When work is stopped, the U.S. Fish and Wildlife Service will be notified as soon as possible.

12. During project activities, all trash that may attract predators or scavengers will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and debris will be removed from work areas.
13. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies. The monitor will ensure that habitat contamination does not occur during operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and appropriate measures to take should a spill occur.
14. Habitat contours will be returned to a natural configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible, or modification of original contours would benefit the California red-legged frog.
15. The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to complete the project. Environmentally Sensitive Areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact on California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.
16. Caltrans will attempt to schedule work at times of the year when impacts to the California red-legged frog would be minimal. For example, work that would create large pools that support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools, which are important to maintaining California red-legged frog populations through the driest portions of the year, would be avoided, to the maximum degree practicable, during late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning will be used to assist in scheduling work activities and avoiding sensitive habitats during key times of year.
17. To control sedimentation during and after project completion, Caltrans will implement the Best Management Practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act. If Best

Management Practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.

18. If a work site is to be temporarily dewatered by pumping, 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. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that allows the flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.
19. Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that attracts California red-legged frogs.
20. A U.S. Fish and Wildlife Service-approved biologist will permanently remove any exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus*; *Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist will be responsible for ensuring that his or her activities comply with the California Fish and Game Code.
21. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.
22. To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force will be followed at all times.
23. Project sites will be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.
24. Caltrans will not use herbicides as the primary method for controlling invasive exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, the

following additional protective measures for the California red-legged frog will be implemented:

- a) Caltrans will not use herbicides during the breeding season for the California red-legged frog.
- b) Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur.
- c) Giant reed and other invasive plants will be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®.
- d) Licensed and experienced Caltrans personnel or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site.
- e) All precautions will be taken to ensure that no herbicide is applied to native vegetation.
- f) Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water).
- g) Foliar applications of herbicide will not occur when wind speeds are more than 3 miles per hour.
- h) No herbicides will be applied within 24 hours of forecast rain.
- i) Applications of herbicides will be done by qualified Caltrans personnel or contractors to ensure that overspray is minimized, and all applications are in accordance with label recommendations; all required and reasonable safety measures will be implemented. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program, county bulletins.
- j) All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and taking the appropriate measures should a spill occur.

Southwestern Willow Flycatcher and Least Bell's Vireo

25. If feasible and regulatory approvals allow, tree removal and trimming will be scheduled to occur from October 1 and January 31, outside of the typical

nesting bird season, to avoid potential impacts on nesting birds. If it is not feasible to conduct this work outside the nesting bird season, nesting bird surveys should be conducted by a qualified biologist no more than 14 days prior to the start of construction. If an active nest is found, a qualified biologist will determine an appropriate buffer or a monitoring strategy, based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy will be implemented until a qualified biologist has determined that the nest is no longer active.

26. If the least Bell's vireo and/or southwestern willow flycatcher is observed within 100 feet of the biological study area during construction, a qualified biologist will implement an exclusion zone. Work will be avoided within the exclusion zone until the least Bell's vireo and/or southwestern willow flycatcher is located more than 100 feet from project-related disturbance. If an active least Bell's vireo and/or southwestern willow flycatcher nest is observed within 100 feet of the biological study area, all project activities will immediately cease, and Caltrans will contact the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife within 48 hours. If required, Caltrans will then initiate formal Federal Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service, as well as California Endangered Species Act coordination for least Bell's vireo and/or southwestern willow flycatcher, and implement additional measures as necessary.
27. It is recommended that bird nests be excluded from the existing bridge. Nesting bird exclusion methods may include installing thick plastic sheeting, placing one-way exclusion devices over drain holes, removing/knocking down nests before they contain eggs or nestlings, or using other methods approved by the California Department of Fish and Wildlife. The required time for installation of bird exclusion devices is outside the nesting season (i.e., implement exclusion methods from October 1 to January 31).
28. During construction, active bird nests will not be disturbed, and the eggs or young of birds that are protected by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, destroyed, injured, or harassed at any time. If an active nest is found, a qualified biologist will determine an appropriate buffer, using Environmentally Sensitive Area fencing or a monitoring strategy, based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy will be implemented until a qualified biologist has determined that the nest is no longer active.
29. Temporary impacts on potential nesting habitat would be offset by replacement plantings within the project limits (Section 2.3.2).

2.3.6 Invasive Species

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order 13112, requiring federal agencies to combat the introduction or spread of invasive species in the U.S. 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.” The Federal Highway Administration guidance issued on August 10, 1999, directs use of the state’s invasive species list, maintained by the California Invasive Species Council, to define the invasive species that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

The information and analysis contained in this section are based on the San Jose Creek Bridge Replacement Project Natural Environment Study prepared by Caltrans in March 2019.

Invasive plant species from the online California Invasive Plant Council database that were seen within the biological study area include the following:

Giant reed (*Arundo donax*)
Hottentot fig (*Carpobrotus edulis*)
Red brome (*Bromus madritensis* ssp. *rubens*)
Slender wild oat (*Avena barbata*)
Black mustard (*Brassica nigra*)
Ripgut brome (*Bromus diandrus*)
Silverleaf cotoneaster (*Cotoneaster pannosus*)
Foxtail barley (*Hordeum murinum*)
Bermuda buttercup (*Oxalis pes-caprae*)
Soft chess Brome (*Bromus hordeaceus*)
Rabbitsfoot grass (*Polypogon monspeliensis*)
Wild radish (*Raphanus sativus*)
Castor bean (*Ricinus communis*)
Russian thistle (*Salsola tragus*)
Smilo grass (*Stipa miliacea* var. *miliacea*)
Silk oak (*Grevillea robusta*)

The following exotic plant species have a “high” invasiveness rating and were observed in the biological study area: giant reed, Hottentot fig and red brome.

Environmental Consequences

It is anticipated that invasive plants within the project area would be removed as part of construction-related vegetation removal. However, ground disturbance, and other activities related to construction, could introduce or help propagate invasive species within the project area. In addition, the project would involve replanting using native vegetation and would discourage invasive species from establishing as part of the replanting efforts.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to avoid and/or minimize potential invasive species impacts caused by project construction activities.

1. During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.
2. Only clean fill will be imported. When practicable, invasive exotic plants in the project site will be removed and properly disposed of. All vegetation removed from the construction site will be taken to a landfill to prevent the spread of invasive species. If soil from weedy areas must be removed off-site, the top 6 inches containing the seed layer in areas with weedy species will be disposed of at a landfill as well. Landscape plantings and the erosion-control seed mix will not include any species from the California Invasive Plant Council Invasive Plant Inventory (California Invasive Plant Council 2017).
3. Construction equipment will be free of excessive dirt that may contain weed seed before entering the construction site. If necessary, wash stations, either on-site or off-site, will be established for construction equipment under the guidance of Caltrans to avoid or minimize the spread of invasive plants and/or seed within the construction area.
4. All giant reed within the project limits will be removed mechanically, removing as much root and rhizome material as possible.
5. The appropriate herbicide selected, and its application will follow these guidelines:
 - a. Chemical treatments for giant reed will be a glyphosate-based herbicide approved by the U.S. Fish and Wildlife Service for use near wetlands, such as Aquamaster® or Rodeo®.
 - b. All precautions will be taken to ensure that no herbicide is applied to native vegetation.

- c. Herbicides will not be applied on or near open water (no closer than 60 feet from open water).
 - d. Foliar applications of herbicide will not occur when wind speeds exceed 3 miles per hour.
 - e. No herbicides will be applied within 24 hours of forecast rain.
 - f. Application of all herbicides will be done by qualified Caltrans personnel or contractors to ensure that overspray is minimized, all applications are made in accordance with label recommendations, and all required and reasonable safety measures are implemented. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program, county bulletins.
 - g. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and taking the appropriate measures should a spill occur.
6. A follow-up control strategy involving foliar spraying of an appropriate herbicide over the leaves of any re-sprouting giant reed will occur no sooner than 21 days in the excavated areas and no later than 42 days in excavated areas. Additional follow-up spraying of any regrowth will be conducted in the next growing season. Licensed and experienced Caltrans personnel or a licensed and experienced contractor will use a hand-held sprayer for follow-up foliar applications of herbicide.
7. On-site mitigation replacement plantings will include native plant species. The erosion-control seed mix will include California native plants that are suitable for the vicinity.

2.4 Construction Impacts

Project construction is expected to start in the 2021/2022 fiscal year. The project is expected to be completed in the 2024/2025 fiscal year.

For the proposed build alternative, construction of the new bridge is expected to take about 280 working days, spread between two construction seasons to avoid construction during the rainy season—November to May. Project activities that are not related to work on the bridge structures may continue throughout the expected project duration.

The build alternative would require a two-stage construction process for the new bridge. There are currently two strategies that could be adopted to conduct the two-stage construction process.

For the first strategy, stage one would involve construction on half of the northbound lanes and half of the southbound lanes simultaneously, while maintaining the other half of both lanes for traffic use. Stage two would involve construction on the opposite half of both the northbound and southbound lanes simultaneously, while traffic is redirected to the completed half that was built during stage one. Once stage two is complete, all northbound and southbound lanes would reopen to traffic.

For the second strategy, stage one would involve construction of all the northbound lanes at one time and would require traffic to be redirected to the southbound lanes. Redirecting traffic would require construction of a temporary median crossover on the east and west sides of the bridge. Stage two would involve redirecting traffic to the newly constructed northbound lanes so construction could start on the southbound lanes. Once stage two is complete, all northbound and southbound lanes would be reopened to traffic, and the temporary median crossover would be removed. The second strategy is currently the preferred two-stage construction process for the project (see Appendix C).

Both of the two-stage construction strategies would require the northbound and southbound lanes within the project area to be reduced from three lanes to two lanes during construction in order to keep traffic outside of work areas. During construction, both the northbound direction and the southbound direction of U.S. Route 101 within the project limits would be maintained and kept open for continued traffic use. At the end of the construction process, all existing lanes on the northbound direction and the southbound direction within the project area would be reopened.

The project would implement Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to traffic management and traffic control during project construction. Caltrans' traffic management and traffic control would include actions and strategies to maintain traffic access within the project area, while keeping the traveling public separated from construction activities. Within the project area, the speed limit would be temporarily reduced to 55 miles per hour, temporary construction warning signs would be installed to inform the traveling public, and temporary barriers would be installed to separate traffic from construction areas.

During project construction, the existing U.S. Route 101 northbound on-ramp from Patterson Avenue, and the U.S. Route 101 southbound off-ramp to Patterson Avenue would require temporary work. The other on-ramp and off-ramp on Patterson Avenue and on State Route 217 would remain accessible to traffic. To keep the U.S. Route 101 northbound on-ramp from Patterson Avenue, and the U.S. Route 101 southbound off-ramp to Patterson Avenue accessible during project construction, temporary paving would be installed to temporarily realign the ramps. Temporary barriers would also be installed to separate traffic from active work sites

near the ramps. To install temporary paving and temporary barriers on these two ramps, short-term closures on the two ramps would be required. Short-term ramp closures are not expected to occur for more than 12 hours at a time, and for no more than two consecutive days. They are also expected to occur outside of normal peak traffic hours. Whenever feasible and appropriate, project activities that require ramp closures would be conducted at night. Once temporary paving and temporary barriers are installed, both ramps would temporarily be realigned and reopened to traffic throughout the duration of project construction. At the end of project construction, the two ramps would be restored to match conditions prior to project construction.

The project would require a temporary construction easement and a permanent drainage easement from one property on the southeastern corner of the bridge. The property is identified as Santa Barbara County Assessor's Parcel Number 017-090-082. Caltrans has an existing drainage easement that is on the property. The temporary construction easement is required to access the existing drainage easement. The new permanent drainage easement would be added to the existing drainage easement. The temporary construction easement and the permanent drainage easement are required to install new rock slope protection on the new bridge abutments. The temporary construction easement and the permanent drainage easement would be obtained in coordination with the property owner once the project has been approved.

Temporary construction areas will be required for project construction. The project will require temporary construction routes within existing Caltrans right-of-way to access the bridge and the creek. Project staging and storage is anticipated to be within a Caltrans right-of-way and on pre-disturbed areas. Establishing temporary construction areas may require vegetation removal or tree trimming. All temporary construction areas would be restored to existing or improved conditions at the end of construction.

The project would involve earthwork associated with removing existing bridge abutments, removing existing sack-crete, removing concrete lining on the embankment, installing new bridge abutments, installing rock slope protection, changing existing retaining walls, and restoring sites. In addition, construction activities would involve roadway repaving, re-painting roadway striping, re-installing guardrails, re-installing median barriers, and conducting drainage work and aesthetic treatments.

During construction, temporary environmentally sensitive areas would be identified within the project area to prevent areas of environmental concern from being disturbed by construction activities. Typically, environmentally sensitive areas within the project area would be identified by temporary fencing or flagging in the field.

Affected Environment

Parks and Recreation Facilities

There are two publicly owned lands that contain parks within 0.5 mile of the project area. Armitos Park is located about 0.2 mile from the project and is a 0.9-acre park with an open field and playground area. Old Town Park sits about 0.3 mile from the project and is a 4.0-acre park that contains a multi-purpose field, numerous courts, skateboard plaza, splash pad, walking paths and picnic areas.

Emergency Services

U.S. Route 101 provides access to State Route 217 and local roadways along the U.S. Route 101 alignment. The San Jose Creek Bridge provides access to areas near the project site. During project construction, emergency services may require access to the San Jose Creek Bridge and the project site.

Emergency services in the project area are provided by the Santa Barbara City Fire Department, the Goleta Police Department, the Santa Barbara County Sheriff's Office, and the California Highway Patrol. Santa Barbara County Fire Station 12 at 5330 Calle Real is the only Santa Barbara Fire Department within 0.5 mile of the project area. The next-nearest station is about 2 miles west of the project area.

There are no police stations within 0.5 mile of the project area. The nearest police station is about 2 miles east of the project area at 4434 Calle Real. The nearest California Highway Patrol office is about 2 miles west of the project area.

Traffic and Transportation

U.S. Route 101 is a major north-south traffic corridor that runs through California. U.S. Route 101 provides connections between much of the communities, towns, and cities along the California coast.

Within the city of Goleta, U.S. Route 101 is a six-lane highway, with three lanes in each direction. Highway access is controlled by an on-ramp and an off-ramp, which are connected to local roads. Within the city of Goleta, U.S. Route 101 is an east-west traffic corridor that is regularly used by commuters entering and exiting the region.

The Santa Barbara Metropolitan Transit District is the public transit agency that serves Santa Barbara County. A few routes travel along U.S. Route 101 and through the project area.

Air Quality

The city of Goleta is within the South Central Coast Air Basin, which includes Santa Barbara County and San Luis Obispo County. Air quality conditions are subject to local topography and weather conditions. The coastal region has low levels of air pollutants and low ozone values due to prevailing wind patterns.

The city of Goleta is within Santa Barbara County and is part of the Santa Barbara County Air Pollution Control District, which has general air quality regulatory authority. The district does not have emissions thresholds for short-term construction activities. It is generally accepted that construction-related emissions are dependent on the characteristics of individual projects. However, the city of Goleta requires implementation of standard emission and dust control techniques for all construction activities.

Noise

The project is in a mostly urban section of Santa Barbara County in the city of Goleta. There are scattered homes and businesses near the highway and around the project limits.

Within the project area, the majority of ambient noise is generated by traffic and the railroad. Traffic noise is related to traffic volumes and the speed of traveling vehicles, which can range from 75 to 90 A-weighted decibels near the highway. The maximum immediate noise level of passing trains ranges from 96 to 100 A-weighted decibels at 100 feet from the railroad tracks.

Ambient noise in the project area is anticipated to be high due to noises generated by traffic and the railroad. The intensity of ambient noise is anticipated to vary depending on the time of day and the source of the noise.

Environmental Consequences

Parks and Recreation Facilities

Construction activities would generate noise that users of Armitos Park and Old Town Park could hear. Although the noise may be heard, the noise would be temporary and intermittent. Construction activities are not anticipated to generate a substantial amount of noise that would prevent people from using the parks. Construction activities would also generate dust in the project area. However, given the distance of the parks from the project area, construction-generated dust is not anticipated to affect the parks.

Emergency Services

During project construction, traffic control and lane reduction will be required in the project area, which could delay emergency services' response times if traveling through the project limits. It is anticipated that during project construction, access for emergency services would be maintained in the project area. Construction activities that could limit or restrict emergency service access would be coordinated with emergency service providers.

In addition, access to on-ramps and off-ramps within the project area would be maintained during project construction. No long-term emergency access restrictions are anticipated for this project. Construction activities are not anticipated to

substantially affect existing emergency evacuation plans for the region in the event of an emergency.

Traffic and Transportation

During project construction, both the northbound and southbound lanes on U.S. Route 101 would be temporarily reduced from three lanes to two lanes within the project area in order to conduct work on the bridge. However, traffic access on U.S. Route 101 would be maintained during project construction. The reduction of available travel lanes within the project area would be temporary and is expected to cause temporary and intermittent delays to traffic traveling through the project area. Temporary lane reduction have the potential to cause more than normal traffic congestion in the area.

During project construction, the U.S. Route 101 northbound on-ramp from Patterson Avenue, and the U.S. Route 101 southbound off-ramp to Patterson Avenue would require short-term closures to conduct work that would allow for temporary ramp realignment. Temporary ramp realignment would allow the ramps to remain accessible to traffic during project construction. Short-term closures of these two ramps would be minor. The closures would occur for no more than 12 hours at a time, for no more than two consecutive days, and outside of normal peak traffic hours. When feasible and appropriate, the closures would occur at night. The short-term ramp closures may require traffic to temporarily use other nearby on-ramps and off-ramps outside of the project area, at either Fairview Avenue or at Turnpike Road, until work on the two ramps are completed and the temporary ramp realignment are usable by travelers. The temporary short-term ramp closures may contribute to temporary and intermittent delays to traffic traveling between U.S. Route 101 and Patterson Avenue in the project area.

No ramp closures are expected for the U.S. Route 101 southbound on-ramp from Patterson Avenue, and the U.S. Route 101 northbound off-ramp to Patterson Avenue. No ramp closures are expected for the on-ramp or the off-ramp on the State Route 217 and Patterson Avenue interchange, or on the State Route 217 and U.S. Route 101 interchange.

Project construction is not anticipated to affect existing or future local road designs and configurations, including existing and future pedestrian routes, bicycle routes, and public transit routes.

Air Quality

Certain construction activities can be the source of temporary impacts air quality. These potential impacts include dust-producing activities that occur during demolition, grading, and paving. During construction, the project would generate temporary air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. Using heavy equipment during project construction could generate fugitive dust that would temporarily impact local air quality if large amounts of

excavation, soil transport, and subsequent fill operations are necessary. The effects of construction equipment on air quality can vary substantially from day to day, depending on the level of activity, the specific type of operation, and the prevailing weather conditions.

Noise

Noise levels in the project area may experience short-term and intermittent increases due to project-related construction activities. The level of construction noise would vary, and would be based on the construction activity type, the location of construction, and the type of construction equipment used. It is anticipated that the noise generated by project construction activities would not be substantially higher than the ambient noise level in the area. Pile driving is not required for this project. The majority of construction activities would be conducted during the day during normal working hours. Nighttime construction activities would be limited and are not anticipated to generate considerable amounts of noise.

Avoidance, Minimization, and/or Mitigation Measures

The project would incorporate the measures listed below to address potential temporary impacts associated with construction activities.

- Parks and Recreation Facilities

It is anticipated that temporary impacts on parks and recreational facilities would result from construction activities that generate noise and dust. Measures to address construction-generated noise and dust are discussed in the Noise and Air Quality portions of this section.

- Emergency Services

Temporary construction impacts on emergency services are anticipated to be minor as emergency services will still be allowed to access the project area during construction. The proposed project will coordinate and notify regional emergency service providers of construction related activities to provide advance notice and to allow for planning. Emergency service providers will be notified of any project activities that may have the potential to restrict or prevent emergency service access within the project area. The project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to actions and strategies that will help to maintain a safe environment for construction workers and the traveling public.

- Traffic and Transportation

Temporary construction impacts on traffic and transportation is anticipated to be minor as traffic access will be maintained within the project area. The project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to traffic management and traffic control. Caltrans' traffic

management and traffic control will include typical actions and strategies implemented during project construction to maintain traffic access within the project area while keeping the traveling public separated from construction activities. These strategies would include but is not limited to: reduction of travel lanes to allow for construction to occur and traffic to continue simultaneously, reduction of the speed limit to reduce the potential for traffic incidents, and installation of construction warning signs to inform the public.

To minimize impact to traffic as a result of short-term temporary ramp closures, the following will be implemented: ramp closures will not exceed 12 continuous hours, ramp closures will not occur for more than two consecutive days, ramp closures will occur outside of normal peak traffic hours and ramp closures will occur at night when feasible and appropriate.

- Air Quality

Caltrans' Standard Specifications and Caltrans' Standard Special Provisions pertaining to dust control and dust palliative application are required for all project construction to effectively reduce and control impacts related to temporary construction emissions. The provisions for Caltrans' Standard Specifications Section 10-5, Dust Control, and Section 14-9, Air Pollution Control, require the contractor to comply with all California Air Resources Board and Santa Barbara County Air Pollution Control District rules, ordinances, and regulations. In addition, the project-level Stormwater Pollution Prevention Plan would provide water pollution control measures that would cross-correlate with standard dust emission minimization measures, such as covering soil stockpiles, watering haul roads, watering excavation and grading areas, and so on. Furthermore, the project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions pertaining to the collection and containment of debris and trash in order to effectively capture all waste materials, thereby preventing any materials from entering the creek or migrating off-site during windy conditions. All stockpiled construction debris should, at a minimum, be covered daily or be off-hauled as soon as possible.

- Noise

In addition to Caltrans' Standard Specification Section 14-8, Noise and Vibration, the following control measures would be implemented to minimize noise and vibration during periods of construction:

- a) Use equipment with manufacturer's recommended noise abatement measures, such as mufflers, engine enclosures and engine vibration isolators intact and operational. All construction equipment should be inspected at periodic intervals during construction to ensure proper maintenance and presence of noise control devices.

- b) Notify surrounding residences in advance of the construction schedule when unavoidable construction noise and upcoming construction activities are anticipated to produce an adverse noise environment above the local ambient noise. This notice will be given 2 weeks in advance. Notices should be published in local news media with the dates and duration of proposed construction activity. The District 5 Public Information Office posts notices of proposed construction and potential community impacts after receiving notice from the resident engineer.
- c) Include the following general measures in the resident engineer folder and implement as appropriate to further minimize temporary construction noise impacts:
 - I. Whenever possible, limit all phases of construction to acceptable hours, Monday through Friday.
 - II. Shield especially loud pieces of stationary construction equipment.
 - III. Locate portable generators, air compressors, etc., away from sensitive noise receptors.
 - IV. Limit the grouping of major pieces of equipment that operate in one area to the greatest extent feasible.
 - V. Place heavily trafficked construction areas, such as the maintenance yard, as well as equipment, tools, and construction-oriented operations, in locations that would be least disruptive to surrounding sensitive noise receptors.
 - VI. Consult the district's noise staff if complaints are received during the construction process.

2.5 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 effects 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 on resources in the project area may result from residential, commercial, industrial, or highway development as well as agricultural development, including a conversion 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 the introduction or promotion of predators. They can also contribute to potential community impacts identified for a project, such as changes in community character, traffic patterns, housing availability, and employment.

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 the California Environmental Quality Act can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts under the National Environmental Policy Act can be found in 40 Code of Federal Regulations 1508.7.

Affected Environment

The information and analysis contained in this section are based on the San Jose Creek Bridge Replacement Project Natural Environment Study prepared by Caltrans in March 2019.

Identifying the resources to consider is the first step in preparing a cumulative impact analysis. The project could have an effect on wetlands and other waters, California red-legged frogs, Southern California steelheads, and Southern California steelhead critical habitat.

The Resource Study Area was identified by considering the effects that past, present, current, and reasonably foreseeable future projects could have on local wetlands and other waters, and the population of Southern California steelheads and their associated habitat. Resource Study Areas used for analysis of cumulative impacts are typically broader than project study areas to get a better perspective of the cumulative impacts on a resource.

The Resource Study Area identified for this analysis is the San Jose Creek watershed because areas within the greater watershed share a common drainage. The San Jose Creek watershed is about 8.81 square miles and flows south from the Santa Ynez Ridge to San Jose Creek's confluence with the San Pedro Creek near the ocean (Appendix E).

Historical land uses in the Resource Study Area included agriculture (orchards) and oil drilling. Major modern changes to the area involved the development of the Goleta Slough, which included numerous transportation, commercial and residential developments. These modern changes included, the building of the Santa Barbara Airport, State Route 217, and University of California, Santa Barbara campus. All of these developments have had an impact on the ecology of the area and on the health of riparian habitats along the San Jose Creek.

Since the first wells were drilled in the Goleta area, dependence on groundwater has likely affected the frequency and quantity of surface water conditions in the San Jose Creek. The continuing effects of present land uses, such as agriculture, in the upper watershed continue to draw water from the local aquifer.

During field visits to the project area, trash, graffiti, and homeless encampments have been seen under the existing San Jose Creek Bridge. No information could be found on how long these activities have been occurring or if these sort of activities are occurring in other parts of San Jose Creek. It is likely that these activities have negatively affected the condition of San Jose Creek.

Wetlands and Other Waters

In the history of the Western U.S., wetland and riparian resources have been heavily affected. These effects were caused in large part by agricultural and urban development, which on many occasions would permanently remove wetland and riparian resources. Regulatory agencies have sought to off-set the additional loss of wetlands and riparian habitat with restoration and revegetation requirements for projects within their respective jurisdictions.

The current health of wetlands and other waters is considered to be moderate to poor. The trend for wetland and riparian habitats along the San Jose Creek is considered stable or slightly improving, but invasive species continue to degrade the habitat value for wildlife.

Southern California Steelhead and Associated Habitat

Detailed information on the current and historical population of Southern California steelhead in the San Jose Creek is scarce. While it is unknown what, if any, aquatic surveys have been conducted recently, no observation records of Southern California steelheads could be found for the San Jose Creek since 2002. No Southern California steelheads were seen during the project's biological surveys.

Considering the historical abundance of Southern California steelheads in the region, and the fact that they can populate creeks by straying into non-natal waters, the San Jose Creek likely supported a population of Southern California steelheads in the past. In 1942, the Goleta Slough was mostly filled-in for a World War II air station—now the Santa Barbara Airport—and the lower San Jose Creek was realigned for this project. In 1975, about 1.15 miles of the lower section of the San Jose Creek was realigned again and channelized into a flood control channel for the construction of State Route 217. This may have been the single largest effect on the Southern California steelhead population in the San Jose Creek because the concrete channel was considered to be a fish passage barrier. In addition, channelization of the creek removed potential suitable Southern California steelhead habitat. In 2012, the lower creek was remediated as part of phase 1 of the city of Goleta's San Jose Creek Flood Control and Fish Passage project.

It is estimated that the Southern California steelhead federal distinct population segment has declined from 32,000 to 46,000 returning adults historically, to currently fewer than 500 returning adults. Population levels and available spawning habitat for the Southern California steelhead federal distinct population segment began trending substantially downward in the early 20th century. This eventually led to the original listing of the Southern California steelhead evolutionary significant unit (the predecessor to the federal distinct population segment) as federally endangered under the Federal Endangered Species Act in 1997. Given the historical context and the likelihood that Southern California steelheads have been substantially impacted over time, this species has been subjected to cumulative impacts. According to the latest available status review (National Marine Fisheries Service 2016), there is little new evidence to suggest that the status of the Southern California steelhead federal distinct population segment has changed considerably in either direction since the last status review was completed in 2011. New information available on anadromous runs since the 2011 review remains limited but does not appear to suggest a change in extinction risk. (National Marine Fisheries Service 2011) The population of the Southern California steelhead in the San Jose Creek has been heavily impacted over the last 200 years. The current health of the Southern California steelhead population is in decline, but the trend is considered to be stable.

Critical habitat for the Southern California steelhead was designated in 2005. The health of critical habitat for Southern California steelheads along California's west coast is diminishing. Ongoing and future threats could include coastal development projects, construction of highways, water diversions, flood control maintenance activities, overgrazing of riparian habitats, competition and/or predation from non-native species, introduction of non-native plants, habitat disturbances, diseases, and climate changes. While there have been declines in quality along the San Jose Creek watershed for Southern California steelhead critical habitat within the Resource Study Area, there have been no evidence of increased degradation of this habitat in recent years. The current health of Southern California steelhead critical habitat in the Resource Study Area is assessed as being poor, but the trend is considered stable.

California Red-Legged Frog

No detailed historical data for the California red-legged frog specific to the Resource Study Area could be found during the literature review for the Natural Environment Study. It is likely that the species could have historically occurred in the Resource Study Area based on the historical abundance of California red-legged frogs in the region and nearby populations. It is estimated that this species has been eliminated from about 70 percent of its historic range due to habitat loss and destruction, and possibly due to the introduction of predatory species such as the American bullfrog. A final recovery plan for this species was approved in 2002. In areas that have been designated critical habitat, some form of management will need to take place to address current and future threats to the species and maintain the physical and biological features necessary for conservation of the species. According to the final recovery plan for the California red-legged frog, delisting the species could occur by

2025 if recovery criteria are met. (U.S. Fish and Wildlife Service, 2002, Recovery Plan for the California red-legged frog). No California red-legged frogs were seen during biological surveys for the project, and no California Natural Diversity Database records for the species occur in the Resource Study Area. The current health of California red-legged frogs is poor, and the overall trend for the species is considered stable or slightly improving. However, invasive predators continue to threaten individual species.

The Resource Study Area does not occur within California red-legged frog critical habitat. Commercial and residential development may have caused unsuitable habitat conditions that led to the removal of the species from the watershed. Therefore, the current health of California red-legged frog critical habitat is poor. However, threats to potential California red-legged frog critical habitat within the Resource Study Area are low, and the trend of suitable habitat in the Resource Study Area is stable.

Environmental Consequences

Information on current and probable future projects was obtained from the planning departments of Caltrans, the city of Goleta, and the city of Santa Barbara. For this analysis, projects within the Resource Study Area that are in proximity to the San Jose Creek and have the potential to affect the resources identified were prioritized. The following reasonably foreseeable future projects have been identified:

Caltrans Project

- San Jose Creek Bridge Replacement Project, State Route 217 (EA: 05-1C360)

Caltrans proposes to replace the existing San Jose Creek Bridge in Santa Barbara County on State Route 217 from post miles 0.9 to 1.4. The project is currently in the Project Approval and Environmental Document phase. The project is included in the 2019 Federal Statewide Transportation Improvement Program for Santa Barbara County that was prepared by the Santa Barbara County Association of Government and is proposed for funding from the State Highway Operation and Protection Program. The project would replace the existing bridge over the San Jose Creek, which was found to show evidence of reactive aggregates in the concrete. The bridge would be replaced with a wider structure to provide standard lane and shoulder widths, and a standard bike/pedestrian path along the outside shoulder of the eastbound lane. The new bridge structure would include features that would allow the structure to be raised to accommodate future sea level rise. No additional rights-of-way would be required because all permanent and temporary construction impacts would occur within the existing right-of-way. The project is expected to start construction in 2022 and would be completed by 2025.

City of Goleta Projects

- San Jose Multipurpose Path

The San Jose Multipurpose Path is part of the 1999 Goleta Transportation Improvement Plan. When completed, the path would be about 3 miles long, and would run alongside the San Jose Creek. The San Jose Multipurpose Path would stretch north from Cathedral Oaks Road to the Atascadero Creek/Obern Trail in the south. The project would be built in two portions: the middle extent and the southern extent. The middle extent extends from Calle Real to Hollister Avenue. The middle extent proposes to cross beneath the San Jose Creek Bridge on U.S. Route 101 and the Union Pacific Railroad. Portions of the middle extent are currently under construction. The southern extent extends from Hollister Avenue to the existing Class 1 Atascadero Creek/Obern Trail. The southern extent proposes a pedestrian/bicycle bridge over the San Jose Creek near Kellogg Way, along with an undercrossing beneath State Route 217 near San Pedro Creek. The southern extent is currently undergoing preliminary design.

- Hollister Avenue Bridge Replacement Project

The city of Goleta proposes to replace the existing Hollister Avenue Bridge, which has been deemed functionally out of date. The bridge was built using reactive aggregate and is not capable of accommodating 100-year storm/flood conditions. The project would replace the existing bridge with one that is up to current design standards and could withstand 100-year storm flows. The new bridge would be at the same location as the existing bridge. The project would widen the San Jose Creek channel immediately downstream from the new bridge so that the channel could accommodate 100-year flood flows and, could conform to the San Jose Creek Capacity Improvement and Fish Passage project that has been completed downstream. The project is part of the city of Goleta's San Jose Creek Flood Control and Fish Passage project that would provide fish passage improvements along the creek channel. The project would build a low-flow fish passage channel and weirs. The project would also improve the channel upstream from the bridge. A final Initial Study with Mitigated Negative Declaration was completed on August 18, 2015. The project is expected to start construction in the 2019/2020 fiscal year.

- Old Town Village Mixed-Use Project

In 2015, the city of Goleta approved a new mixed-use development near the corner of South Kellogg Avenue and Kellogg Way. The project would build 113 town homes, 34 live-work units, and 28 shopkeeper units on a 12-acre lot that was previously used for agriculture. A final Initial Study with Mitigated Negative Declaration was completed in May 2015 and included an addendum to the Goleta General Plan/Coastal Land Use Plan and Final Environmental Impact Report. The project is currently under construction and is identified as the Winslowe in Goleta by City Ventures Development.

Wetlands and Other Waters

The project on U.S. Route 101 would impact jurisdictional waters and/or riparian habitat that would be small in scale; on-site compensatory mitigation would be implemented. Impacts to water quality are not anticipated. Removing invasive giant reed series and subsequently replanting native arroyo willow trees, and other native plants, would benefit the ecology of the project area. The project would also incorporate appropriate measures to reduce temporary and permanent impacts to riparian areas.

Regarding the other proposed projects in the Resource Study Area:

- The San Jose Creek Bridge Replacement Project on State Route 217

This project is anticipated to impact riparian and wetland areas temporarily and permanently because work would be along the San Jose Creek. Impacts to water quality are not anticipated. The project is expected to adopt measures to avoid, minimize and/or mitigate impacts to wetlands and other waters. The project is also expected to potentially adopt additional conditions to comply with project permitting requirements. Replanting native plants is expected to be required as part of the project. Also, Caltrans' standard practices would remove any invasive species found within the project site as part of project construction.

- The San Jose Multipurpose Path project

This project is anticipated to impact jurisdictional and/or riparian habitat because it would build bridges and an undercrossing that would require work along the creek banks. The project is expected to implement compensatory mitigation, and replant native plants to mitigate for any disturbances to the creek channel.

- Hollister Avenue Bridge Replacement Project

Based on the final Initial Study with Mitigated Negative Declaration, the Hollister Avenue Bridge Replacement project would minimally impact riparian or wetland resources. The project would use measures to off-set project impacts through restoring riparian and wetland resources.

- Old Town Village Mixed-Use Project

The Old Town Village Mixed-Use project sits on a lot that was previously used for agriculture. The final Initial Study with Mitigated Negative Declaration does not have a discussion on wetlands. The project is not anticipated to impact wetlands or riparian areas.

Based on the analysis of cumulative impacts to wetlands and other waters in the Resource Study Area, while there has been and continues to be a significant cumulative impact to wetland and other waters, the proposed project would not

result in a significant contribution to the cumulative impact on wetlands and other waters within the Resource Study Area. The project is anticipated to cause a cumulative benefit by removing invasive plant species within the riparian areas, removing human-made structures from the creek channel, and replanting appropriate native vegetation within the project site.

Southern California Steelhead and Associated Habitat

The project on U.S. Route 101 would temporarily impact critical habitat for the Southern California steelhead. Project construction activities would cause the temporary impacts. However, the project would have measures in place to reduce the potential for temporary impacts to Southern California steelheads and their habitat. In-stream construction is anticipated to occur during the dry season to avoid potential impacts Southern California steelheads. Restoring the creek area would help off-set impacts to Southern California steelhead habitat. Impacts to Southern California steelheads and their habitat would be small in scale and the project is not anticipated to substantially contribute to cumulative Southern California steelhead impacts. On-site mitigation and revegetation, along with removing invasive species associated with the project, may have a long-term benefit for Southern California steelheads and their habitat.

Regarding the other proposed projects in the Resource Study Area:

- The San Jose Creek Bridge Replacement Project on State Route 217

The San Jose Creek Bridge Replacement Project on State Route 217 may potentially impact Southern California steelheads and their habitat because the project would involve work in and/or around the creek channel. The project is expected to include measures to avoid, minimize and/or mitigate potential impacts to Southern California steelheads and their habitat as part of the project.

- San Jose Multipurpose Path Project

The San Jose Multipurpose Path project may temporarily affect Southern California steelhead habitat with the construction of the pedestrian/bicycle bridges and undercrossing. It is anticipated that any potential impacts to Southern California steelhead habitat would be mitigated with on-site restoration. The project may be able to avoid potential impacts to Southern California steelheads if construction of the bridges and the undercrossing are conducted when the creek is dry.

- Hollister Avenue Bridge Replacement Project

Based on the final Initial Study with Mitigated Negative Declaration, the Hollister Avenue Bridge Replacement project is not anticipated to potentially impact Southern California steelhead because the project would be built during the dry season when there is no water in the creek. Project completion

is expected to improve passage and habitat conditions for Southern California steelheads.

- Old Town Village Mixed-Use Project

The Old Town Village Mixed-Use project is on a lot that was previously used for agriculture. The project would not involve work in the San Jose Creek. It is anticipated that the project would not have the potential to impact Southern California steelheads.

Based on the analysis of potentially cumulative impacts to Southern California steelhead trout in the Resource Study Area, although there has been and continues to be a significant cumulative impact to Southern California steelhead trout, the proposed project would not result in a significant contribution to cumulative impacts on Southern California steelhead or Southern California steelhead critical habitat within the Resource Study Area. The proposed San Jose Creek Bridge Replacement project is not anticipated to contribute to a substantial adverse cumulative impact to Southern California steelhead trout. The proposed project is however anticipated to result in a cumulative benefit to Southern California steelhead habitat by removal of invasive species and reducing the number of human-made structures within the creek channel, which would help improve creek conditions for Southern California steelhead species and habitat.

California Red-Legged Frog

The proposed project on U.S. Route 101 would potentially impact the California red-legged frog. Project construction could potentially result in take and/or loss of California red-legged frogs if the frogs are found within the project site. The project would use appropriate measures to avoid impacting the California red-legged frog during project construction. Avoiding construction during the wet season and conducting pre-construction surveys are anticipated to reduce the potential impacts to California red-legged frogs. With current project design measures in place, it is anticipated that the project would have minimal impact to California red-legged frog and have the potential to restore their habitat.

Regarding the other proposed projects in the Resource Study Area:

- San Jose Creek Bridge Replacement Project on State Route 217

The San Jose Creek Bridge Replacement project on State Route 217 is anticipated to temporarily impact California red-legged frog habitat. The San Jose Creek channel would be disturbed during project construction. The project would avoid impacting California red-legged frogs and their habitat by minimizing the total project's construction area and avoiding work in the creek during the wet season. Temporary impacts to California red-legged frog habitat would be mitigated, and measures would be included to avoid impacting California red-legged frogs.

- **San Jose Multipurpose Path Project**

The San Jose Multipurpose Path project may temporarily affect California red-legged frogs and their potential habitat with the construction of the pedestrian/bicycle bridges and undercrossing. The project is expected to implement measures to address temporary and permanent impacts to California red-legged frog habitat. The project has the potential to impact California red-legged frogs because project construction would involve disturbance to the San Jose Creek banks and channel. The project is expected to adopt measures to reduce the potential for impacts to California red-legged frogs.

- **Hollister Avenue Bridge Replacement Project**

Based on the final Initial Study with Mitigated Negative Declaration, the Hollister Bridge Replacement project is not anticipated to impact the California red-legged frog because the species is unlikely to occur in the project area. The project site is also not within critical habitat for the California red-legged frog. In addition, project construction is expected to occur during the dry season when there is no water in the creek.

- **Old Town Village Mixed-Use Project**

Based on the final Initial Study with Mitigated Negative Declaration, the Old Town Village Mixed-Use project would temporarily impact riparian areas. The disturbance to riparian areas would not create new significant impacts beyond those identified in the Goleta General Plan/Coastal Land Use Plan and Final Environmental Impact Report. Disturbance of riparian areas may include potential habitat for the California red-legged frog. Measures identified in the Goleta General Plan/Coastal Land Use Plan and Final Environmental Impact Report would be used to protect riparian areas.

Based on analyses of cumulative impacts to California red-legged frogs in the Resource Study Area, there have been continued and significant cumulative impacts to California red-legged frogs and their critical habitat. However, the proposed project would not result in a significant cumulative impact to California red-legged frogs or their critical habitat within the Resource Study Area. The San Jose Creek Bridge Replacement project, when considered in a cumulative effects context, is not anticipated to result in substantially significant impacts to the California red-legged frog. The project has the potential to result in a cumulative benefit to California red-legged frog habitat by removing invasive species and reducing the number of human-made elements in the creek channel. These changes would improve overall creek conditions for the species.

Chapter 3 **CEQA Evaluation**

3.1 Determining Significance under CEQA

The project is a joint project by Caltrans and the Federal Highway Administration and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the National Environmental Policy Act (known as NEPA), and the California Environmental Quality Act (known as CEQA). The Federal Highway Administration's responsibilities 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 U.S. Code 327 and the Memorandum of Understanding dated December 23, 2016, and executed by the Federal Highway Administration and Caltrans. Caltrans is the lead agency under NEPA and CEQA.

One of the main differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an environmental impact statement, or a lower level of documentation, will be required. NEPA requires that an environmental impact statement 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 environmental impact statement, 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 document.

CEQA, on the other hand, does require Caltrans to identify each "significant effect on the environment" 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 environmental impact report must be prepared. Each and every significant effect on the environment must be disclosed in the environmental impact report and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an environmental impact report. 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. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant with Mitigation

Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and 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 to provide you 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.

3.2.1 Aesthetics

CEQA Significance Determinations for Aesthetics

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

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant

The bridge would minimally affect scenic vistas in the area. As seen from U.S. Route 101, the main public viewpoint, the project would affect views for a short duration. The creek and distant hills would remain visible and would continue to contribute to scenic vistas. The bridge would be built with minor changes to the alignment and deck profiles. However, these changes would not reduce or block views of the surrounding scenic vistas. As a result, the project would have little to no adverse effect on the existing scenic vistas, including, but not limited to, views of the creek and views of the inland mountains. (Visual Impact Assessment, February 12, 2019)

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant

The project is not in an area that has been classified as an Officially Designated State Scenic Highway. Project construction would require

removing vegetation and trees, which would be replaced at the end of construction. (Visual Impact Assessment, February 12, 2019)

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant

Although the existing San Jose Creek Bridge is visible in the immediate project vicinity, it is not architecturally unique, and does not establish a particularly memorable style in support of a high-quality visual setting. Project elements above the bridge deck, such as the roadside railing and the median barrier, would be visible. However, these types of elements are already seen from the existing bridge structures and the nearby roadside. Their replacement would not add new or unexpected visual elements. This minor visual change would not be unexpected in the immediate highway context, which includes bridge structures and other utilitarian elements. Any vegetation removal associated with the project would be replanted, which would result in a natural visual condition. The intact visual character of the setting would not be substantially reduced by the proposed changes. (Visual Impact Assessment, February 12, 2019)

d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?

No Impact

The project proposes no new lighting or sources of glare and would not affect daytime or nighttime views. (Visual Impact Assessment, February 12, 2019)

3.2.2 Agriculture and Forest Resources

CEQA Significance Determinations for Agriculture and Forest Resources

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

carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact

Based on the city of Goleta's online land use maps (<https://www.cityofgoleta.org/city-hall/planning-and-environmental-review/general-plan>) the project is not within Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Therefore, the project would not convert these farmland types to non-agricultural use.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact

Based on the city of Goleta's online zoning maps (<http://www.goletazoning.com/>) the project is not in an area that is zoned for agricultural use. Therefore, the project would not 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))?

No Impact

Based on the city of Goleta's online zoning maps (<http://www.goletazoning.com/>) the project is not in an area zoned for forestland, timberland, or timberland production. Therefore, the project would not conflict with existing zoning for forest land, timberland, or timberland production.

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

No Impact

Based on the city of Goleta's online land use maps (<https://www.cityofgoleta.org/city-hall/planning-and-environmental-review/general-plan>) the project is not within forest land. Therefore, the project would not result in the loss of forestland or conversion of forestland 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?

No Impact

Based on the city of Goleta's online land use maps (<https://www.cityofgoleta.org/city-hall/planning-and-environmental-review/general-plan>) the project is not within or next to agricultural lands or forest lands. The project would not potentially affect agricultural lands or forest lands in the project area.

3.2.3 Air Quality

CEQA Significance Determinations for Air Quality

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

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact

The Santa Barbara County Air Pollution Control District regulates air quality in Santa Barbara County. Santa Barbara County is considered to be a nonattainment area (an area that does not meet the primary standard) with respect to California's ambient air quality standards for ozone, and for airborne particulate matter that is less than 10 microns in diameter.

The project would not increase roadway capacity, and there would be no difference in long-term air emissions with or without the project. In addition, projects that do not further degrade air quality in the basin are consistent with the Santa Barbara County Air Pollution Control District's state air quality attainment goals as stated in its State Implementation Plan. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan. (Revised Air Quality, Noise and Greenhouse Gas Memo, June 5, 2018)

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

No Impact

Santa Barbara County is considered a nonattainment area with respect to California's ambient air quality standards for ozone and for airborne

particulate matter that is less than 10 microns in diameter. Santa Barbara County is considered an attainment area (a geographic area that meets or does better than the primary standard) with respect to federal air quality conformity requirements. The project would involve the reconstruction of an existing bridge without adding additional travel lanes in Santa Barbara County. Since no additional lanes would be added to the roadway, and the capacity would not be increased on the roadway, there would be no difference in long-term air emissions with or without the project. Because the project is not anticipated to degrade air quality, it would not result in a cumulatively considerable net increase in any criteria pollutant. (Revised Air Quality, Noise and Greenhouse Gas Memo, February 12, 2020)

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant

The project site is surrounded by a mix of residential, commercial, and industrial land uses. Due to the relatively small scale and scope of the project, there is minimal potential for the project to expose sensitive receptors to substantial concentrations of inhalable pollutants that would be considered significant.

It is anticipated that during project construction, the project would generate temporary air pollutants such as exhaust from construction equipment, which could contain hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. Equipment operation would generate fugitive dust that may temporarily affect the local air quality. However, Caltrans' Standard Specification sections that pertain to air pollution control, emission reduction, dust control, and dust palliative would be implemented for all construction activities, which would effectively reduce and control potential impacts to air quality. (Revised Air Quality, Noise and Greenhouse Gas Memo, February 12, 2020)

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant

Operating construction equipment and using construction materials during the project have the potential to emit emissions and odors that may affect nearby homes and businesses. Construction activities are anticipated to occur during a typical eight-hour working day, which would limit the daily generation of emissions or odors. Odors and other emissions caused by construction activities are not anticipated to adversely affect a substantial number of people because of the small scale and scope of the project.

In addition, Caltrans' Standard Specification sections that pertain to air pollution control, emission reduction, dust control, and dust palliative would be

implemented for all construction activities, which would effectively reduce and control potential impacts to air quality. (Revised Air Quality, Noise and Greenhouse Gas Memo, February 12, 2020)

3.2.4 Biological Resources

CEQA Significance Determinations for Biological Resources

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated

Within the biological study area, marginal and suitable habitats for special-status species are present. During appropriately timed environmental surveys of the biological study area, no special-status species were seen. Due to the presence of marginal and suitable habitats for special-status species within the biological study area, the project has the potential to affect special-status species within the project limits. The project would implement avoidance, minimization and/or mitigation measures to avoid potentially significant impacts to special-status species and their associated habitats, as discussed in Sections 2.3.3, 2.3.4 and 2.3.5. (Natural Environment Study, March 2019)

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated

Various natural communities were identified within the biological study area. The biological study area also contains riparian and wetland habitats. In addition, the San Jose Creek occurs within a federally designated critical habitat for the Southern California steelhead. The project would cause temporary and permanent impacts to natural communities, riparian habitats, wetland habitats, and a critical habitat for the Southern California steelhead. However, project impacts would be reduced to less than significant by implementing avoidance, minimization and/or mitigation measures as discussed in Sections 2.3.1, 2.3.2 and 2.3.5. (Natural Environment Study, March 2019)

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant with Mitigation Incorporated

The project would cause temporary impacts to jurisdictional U.S. Army Corps of Engineers' "other waters." The project would also cause temporary and permanent impacts to jurisdictional areas of the California Department of Fish and Wildlife and Regional Water Quality Control Boards. These temporary impacts to jurisdictional areas would be caused by dewatering, vegetation removal, bridge demolition, debris removal, rock slope protection installation, equipment access, and foot traffic. Permanent impacts to jurisdictional areas of the California Department of Fish and Wildlife and Regional Water Quality Control Boards would be caused by installing rock slope protection around the new bridge abutments. Measures and compensatory mitigation described in section 2.3.2 would be implemented to minimize impacts on protected wetlands.

- 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?

Less Than Significant

The biological study area contains locations and conditions that could provide opportunities for bird nesting and bat roosting during their migration. The San Jose Creek also provides fish passage opportunities. The project would require removing trees that could be used for bird nesting. The project would require replanting any trees lost with native trees as part of revegetation efforts. Removing the existing bridge would remove potential roosting locations for bats, however, the project would install a new bridge in its place. The project would involve construction activities in the creek, but these activities would be scheduled in the dry season when there is little to no flow in the creek. The project is anticipated to temporarily impact resident or migratory species. Based on the hydraulic study conducted for the project, the new bridge design would not affect the current fish passage because it would maintain the existing fish passage characteristics and the natural streambed bottom. In addition, the project would implement avoidance, minimization, and/or mitigation measures to avoid potential significant impacts to migratory species as described in sections 2.3.4 and 2.3.5. There are no native wildlife nursery sites within the project limits. (Natural Environment Study, March 2019)

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

Less Than Significant

Based on the city of Goleta General Plan, the project is in the vicinity of riparian zones and raptor roosting habitats. The city of Goleta has policies in its General Plan to protect these resources.

Project activities would require removing riparian vegetation and could potentially disrupt raptor roosting habitats. However, the project would revegetate disturbed riparian zones and would limit the potential disturbance to nesting birds as discussed in Sections 2.3.1 and 2.3.4. The project is anticipated to temporarily impact riparian zones and raptor roosting habitats, which would result in a less than significant impact. (Natural Environment Study, March 2019)

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact

Based on available city and county mapping data, the project is not within the jurisdiction of a habitat conservation plan or a natural communities conservation plan; Therefore, the project would not conflict with any such plan.

3.2.5 Cultural Resources

CEQA Significance Determinations for Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact

The San Jose Creek Bridge was determined to be a Category 5 bridge in the Caltrans Statewide Historic Bridge Inventory. Therefore, it is not eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. The existing bridge is not considered a historic resource for the purposes of CEQA. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource. (Cultural Resources Review, September 10, 2018)

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

No Impact

The field survey did not detect the presence of any visible archaeological resources on the surface. In addition, the survey confirmed the substantial level of disturbance the project site has endured from past construction activities, suggesting a low probability for intact subsurface archaeological deposits. Therefore, the project would not cause a substantial adverse change in the significance of an archaeological resource. (Cultural Resources Review, September 10, 2018)

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant

Because of the high level of ground disturbance around the project site, the probability of encountering human remains during construction would be low. Therefore, the project is not anticipated to disturb any human remains. If previously unknown human remains are discovered during project construction, it is Caltrans' standard procedure to follow the California Health and Safety Code Section 7050.5, which states that further disturbances and activities should stop in any area or nearby area suspected to overlie remains, and the county coroner should be contacted. If the county coroner thinks the remains are Native American, he or she would notify the Native American Heritage Commission, who, pursuant to Public Resources Code Section 5097.98, will then notify the Most Likely Descendant. The person who discovers the remains will contact the District 5 Environmental Branch, so that they may work with the Most Likely Descendant on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 must be followed as applicable. (Cultural Resources Review, September 10, 2018)

3.2.6 Energy

CEQA Significance Determinations for Energy

Would the project:

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant

The project would follow Caltrans' Standard Specifications and Caltrans' Standard Special Provisions, which include construction practices that would

reduce and limit the consumption of energy resources during project construction, such as turning off idling equipment, limiting material transport, limiting night work, etc. The project would not require excessive consumption of energy resources for operation once it is completed.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact

The project is not anticipated to conflict with or obstruct existing state or local energy plans for renewable energy or energy efficiency (see Section 3.3, Climate Change).

3.2.7 Geology and Soils

CEQA Significance Determinations for Geology and Soils

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant

The potential for fault rupture is minimal at the project site. The project is not on any known fault, but the regional geology is dominated by the Santa Barbara fold and fault belt and the overlapping Santa Ynez Mountain uplift, which have several known faults in the project area. The project site is about 1.27 miles south-southwest of the San Jose Fault, 2.1 miles northwest of the Mission Ridge-Arroyo Parida-Santa Ana Fault, 1.44 miles north of the More Ranch Fault, 3.7 miles north of the Red Mountain Fault, and 3.56 miles north-northeast of the Ventura-Pitas Point Fault. (Structures Preliminary Geotechnical Report, August 19, 2016)

ii) Strong seismic ground shaking?

Less Than Significant

The project is anticipated to experience strong seismic ground shaking in the event of a large earthquake. However, the project would be designed according to Caltrans' seismic standards, as provided in Caltrans' Highway Design Manual, which would minimize the risk of loss, injury, or death that could result from strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant

The potential for seismic-related ground failure, including liquefaction is minimal at the project site. (Structures Preliminary Geotechnical Report, August 19, 2016)

iv) Landslides?

Less Than Significant

Based on topographic maps of the project area, the project site is in a relatively flat area and away from any steep slopes. Although landslides are not anticipated to occur within the project area, landslides that may occur upstream on the San Jose Creek could potentially affect the project site.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant

Ground-disturbing earthwork associated with construction could increase soil erosion rates and the loss of topsoil. The potential for erosion would be minimal because of the types of soil in the project area. The Best Management Practices described in section 2.2.2 would further minimize erosion and 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-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant

The project region is an alluvial plain that contains geologic structures such as folds and faults. The region has been classified as “strong” for ground shaking intensity by the California Geological Survey. The project site has minimal potential for unstable soils and the project is not anticipated to create unstable soil conditions on-site or off-site. (Structures Preliminary Geotechnical Report, August 19, 2016)

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

Less Than Significant

Expansive soils are not anticipated to be found within the project site. A geotechnical investigation would be conducted before project construction to determine soil conditions within the project site. If expansive soils are identified, the appropriate Caltrans design standards would be incorporated

into the project to address potential issues associated with expansive soils. (Structures Preliminary Geotechnical Report, August 19, 2016)

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact

The project would not involve a septic system or an alternative wastewater disposal system; therefore, there would be no impact.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact

The project would not directly or indirectly destroy unique paleontological resources or sites because none are anticipated to be found within the project limits. There are no unique geologic features within the project limits.

3.2.8 Greenhouse Gas Emissions

CEQA Significance Determinations for Greenhouse Gas Emissions

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant

The project would not generate enough greenhouse gas emissions to significantly impact the environment. Construction-related greenhouse gas emissions would be unavoidable due to material processing, delivery, on-site construction equipment, and potential traffic delays. Emissions would be produced at different levels throughout the construction phase. Frequency and occurrence could be reduced through innovations in plans and specifications, and by implementing better traffic management and traffic control during construction phases.

The greenhouse gas emission discussion is based on climate change guidance provided by the Caltrans Division of Environmental Analysis. According to the guidance, there are several categories of projects that would most likely have minimal or no increase in operational greenhouse gas emissions, including roadway improvement projects, such as the proposed project. Greenhouse gas emissions are discussed further in Section 3.3 Climate Change.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact

The project would not change the existing highway capacity or alignment, and would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses. Construction contracts would include all of Caltrans' Standard Specifications that require compliance with the California Air Resources Board's air district rules, regulations, ordinances, and statutes, some of which could contribute to reducing construction greenhouse gas emissions, such as idling equipment restrictions, appropriate source point, etc.

3.2.9 Hazards and Hazardous Materials

CEQA Significance Determinations for Hazards and Hazardous Materials

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant

During project construction, the project may use and/or encounter potentially hazardous substances, such as petroleum-derived products, industrial chemicals, compounds, and materials, etc. These materials would be transported into and out of the project site as needed.

Any potentially hazardous substances used and/or encountered during construction would be regulated and controlled to ensure that their potential for affecting the public or the environment would be avoided, minimized, and/or mitigated to comply with Caltrans' Standard Specifications and state and federal requirements. If project construction encounters an unknown substance, appropriate testing would be conducted. If the unknown substance is identified as a hazardous substance, it would be treated and handled appropriately to comply with Caltrans' Standard Specifications and state and federal requirements. The project would incorporate Caltrans' Standard Specifications and Measures to ensure that potentially hazardous substances would not significantly affect the public or the environment. (Hazardous Waste Technical Memo, February 14, 2018)

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant

Construction activities have the potential to cause spills and/or the release of potentially hazardous substances. The project will incorporate Caltrans' Standard Specifications to prevent and control spills and releases, which would reduce the potential for hazardous substances to significantly affect the public or 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?

Less Than Significant

Based on the city of Goleta's online maps, the project is about 0.25 miles northwest from St. Raphael School.

Equipment operation during construction would produce emissions and air pollutants, but the concentrations of emissions and air pollutants are not anticipated to reach hazardous levels (see Section 3.2.8). The project would incorporate Caltrans' Standard Specifications to reduce potential emissions and air pollutants generated from equipment operations. During project construction, the project may use and/or encounter potentially hazardous substances, such as petroleum-derived products, industrial chemicals, compounds, and materials, etc. Any potentially hazardous substances used and/or encountered during construction would be regulated and controlled to ensure that their potential for affecting the public or the environment would be avoided and/or minimized to comply with Caltrans' Standard Specifications and state and federal requirements. The project would incorporate Caltrans' Standard Specifications and Measures to ensure that potentially hazardous substances would not significantly affect the public or the environment. (Hazardous Waste Technical Memo, February 14, 2018)

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. (Hazardous Waste Technical Memo, February 14, 2018)

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the

project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact

Based on the city of Goleta's online maps, the project is about 1.2 miles northeast from the Santa Barbara Airport. No private airstrip is within 2 miles of the project site. The project would not expose workers or residents within the project area to safety hazards or excessive noise associated with airport operations.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant

Although access on U.S. Route 101 would be maintained during project construction, the roadway capacity within the project limits would be temporarily reduced, which could cause more than normal traffic congestion. More than normal traffic congestion could potentially delay emergency response times or emergency evacuations in the project area.

The project will implement Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to coordinating with emergency service providers and emergency response planners. During project construction, both groups would be notified of project activities that have the potential to affect emergency response plans or evacuation plans.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact

Based on available Fire Hazard Severity Map for Santa Barbara County, the project site is not immediately surrounded by wildlands or in an area that is at considerable risk of wildland fires. The project site is in an urban setting, surrounded by a mix of residential, commercial, and industrial land uses.

3.2.10 Hydrology and Water Quality

CEQA Significance Determinations for Hydrology and Water Quality

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant

During project construction, a variety of activities would occur next to, above, and within the San Jose Creek. Construction-related activities have the potential to temporarily and intermittently impact water quality because fugitive dust and other materials may enter the San Jose Creek. To avoid and/or minimize potential impacts to water quality, all work in the San Jose Creek would be conducted during the dry season, when the creek is most likely to be dry. If water is present during the dry season, temporary avoidance and/or minimization measures will be implemented to ensure that construction activities would not significantly affect the creek or its water quality. The project would also implement permanent and temporary Best Management Practices and Caltrans' Standard Specifications to prevent and/or reduce potential impacts to water quality during construction to less than significant.

The project would not involve the discharge of wastewater. Portable toilets would be placed within the project site and at a considerable distance away from the San Jose Creek channel. Any liquid waste generated by project activities would be collected, contained, and disposed of in a manner that is appropriate to the substance. (Water Quality Assessment, July 6, 2018)

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact

Project construction activities or facility operations would not require excessive volumes of water. The project would not substantially decrease local groundwater supplies because substantial amounts of water are not necessary for project completion or operation. The project would not involve activities that would interfere with groundwater recharge or impede on the sustainable groundwater management of the local basin.

The project will involve replanting native plants as part of measures for biological resources. Caltrans complies with water conservation requirements set by executive orders that were issued during Governor Edmund G. Brown Jr.'s term. One of Caltrans' goals is to reduce water consumption by 50 percent compared to 2013 baseline usage. Caltrans often plans and designs temporary and/or permanent irrigation systems that would minimize water consumption.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on-site or off-site;

Less Than Significant

The project would involve earthwork, removing existing paved surfaces, and installing rock slope protection. However, the project would incorporate appropriate erosion control measures, permanent and temporary Best Management Practices, and Caltrans' Standard Specifications to minimize the potential for erosion or siltation on-site or off-site. (Water Quality Assessment, July 6, 2018)

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site;

No Impact

The project would involve removing existing paved surfaces, reducing the presence of impermeable surfaces, and decreasing the amount of surface runoff. The new bridge would be similar in dimension and design and would not substantially change the existing surface runoff from the bridge surface. Installing rock slope protection would reduce the existing presence of impermeable surfaces. Therefore, the project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site. (Revised Location Hydraulic Study, February 4, 2020)

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

No Impact

The project would remove existing paved surfaces which would reduce water runoff. The project would not create additional impervious surfaces that would substantially create or contribute to water runoff that would exceed the capacity of existing drainage systems or introduce additional sources of polluted runoff.

iv) Impede or redirect flood flows?

No Impact

The project is within a designated floodway of the Federal Emergency Management Agency. The project would replace an existing bridge with a single-span bridge at the same location. The existing bridge has 52 columns within the floodway and the project would remove the existing 52 columns,

and associated elements from the floodway. The removal of the columns from the floodway would reduce impediments to flood flows and improve flood flows at the bridge location. The project would also remove concrete slope paving beneath the bridge and replace them with rock slope protection. Installing rock slope protection would increase the cross-sectional area beneath the bridge and would reduce the flood water elevation at the project location. The project would not impede or redirect flood flows. (Revised Location Hydraulic Study, February 4, 2020)

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact

The project is not within a designated flood hazard zone or within the reach of a tsunami. (Revised Location Hydraulic Study, February 4, 2020)

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact

The project region is regulated by the Central Coast Regional Water Quality Control Board and the Central Coast Basin Plan. The project would comply with applicable regulations and policies that pertain to protecting water resources in the region.

The project will coordinate and comply with several organizations and their regulations such as the California Fish and Game Code Section 5650, the California Department of Fish and Wildlife Section 1601, the U.S. Army Corps of Engineers' Section 404 permit, and the Regional Water Quality Control Boards' Section 401 Water Quality Certification. (Water Quality Assessment, July 6, 2018)

3.2.11 Land Use and Planning

CEQA Significance Determinations for Land Use and Planning

Would the project:

a) Physically divide an established community?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project will not physically divide an established community.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact

The majority of project activities would occur within an existing state right-of-way. The project will require a temporary construction easement and a permanent drainage easement to install rock slope protection. However, the temporary easement and the permanent easement associated with the project are not anticipated to conflict with any existing land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.2.12 Mineral Resources

CEQA Significance Determinations for Mineral Resources

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact

Based on mapping provided by the California Department of Conservation, there are no mineral resources that would be of value to the region and the residents of the state within the project area.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact

Based on the city of Goleta's General Plan, there are no existing or planned resource recovery sites within the project area.

3.2.13 Noise

CEQA Significance Determinations for Noise

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant

The project would not add capacity to the highway and the new bridge structure will be located at the same location. Long-term ambient noise levels in the project vicinity are not anticipated to change once the project is completed. Construction activities have the potential to cause short-term increase in ambient noise levels. Construction-related noise would vary based on the activities and their proximity to nearby receptors. Noise generated during project construction would be temporary, intermittent, and is not anticipated to substantially exceed ambient noise levels in the project area. Construction activities are not anticipated to cause adverse noise conditions to the surrounding area. The majority of construction activities would be conducted during the day. Construction activities are not anticipated to exceed 86 A-weighted decibels at 50 feet from the source during nighttime operations. The project would include Caltrans' Standard Specifications that pertain to noise control and minimization measures to reduce the project's potential for noise impacts. (Revised Air Quality, Noise and Greenhouse Gas Memo, February 12, 2020)

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant

The project will require installing piles as part of the construction for the new bridge abutments. The project would use cast-in-drilled-hole piles, which would require using a boring machine. Typical pile installation lasts a few days and is not anticipated to cause excessive groundborne vibrations or excessive noise levels. (Revised Air Quality, Noise and Greenhouse Gas Memo, February 12, 2020)

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact

Based on the city of Goleta's online maps, the project is about 1.2 miles northeast from the Santa Barbara Airport. No private airstrip is within 2 miles of the project site. The project would not expose people living or working in the project area to excessive noise levels because it is outside the range of airport traffic or other airport operations.

3.2.14 Population and Housing

CEQA Significance and Determinations for Population and Housing

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact

The project would replace an existing bridge on an existing highway without altering the current highway capacity. The project would not change accessibility or influence growth. No direct or indirect impacts on unplanned population growth in the area would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact

The project would require a permanent drainage easement that is less than 100 square-feet from a single parcel. The drainage easement is not anticipated to displace any existing homes or businesses, result in acquiring the entire parcel, or affect existing properties.

3.2.15 Public Services

CEQA Significance Determinations for 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:

Fire protection?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project would not require altering or building facilities related to fire protection.

Police protection?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project would not require altering or building facilities related to police protection.

Schools?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project would not require altering or building facilities related to schools.

Parks?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project would not require altering or building facilities related to parks.

Other public facilities?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project would not require altering or building facilities related to other public facilities.

3.2.16 Recreation

CEQA Significance Determinations for Recreation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project would not increase demand or use at existing neighborhood and regional parks. Therefore, the project would have no impact.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact

The project would replace an existing bridge with a new bridge at the same location on U.S. Route 101. The project does not involve building or expanding new or existing recreational facilities. The project would have no impact.

3.2.17 Transportation

CEQA Significance Determinations for Transportation

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant

During construction, temporary lane reductions within the project area have the potential to cause more than normal traffic delays in the project area. These effects would be temporary and minor, and U.S. Route 101 would remain open throughout construction. The project is not anticipated to conflict with any program plan, ordinance, or policy that addresses the circulation system, including mass transit and non-motorized travel, and relevant components, including, but not limited to, intersections, streets, highways and freeways, and pedestrian and bicycle paths. Replacing the bridge would ensure that the highway system continues to operate at this location. The project would not prevent the construction of a multipurpose path that would pass beneath U.S. Route 101 at the San Jose Creek Bridge.

b) Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less Than Significant

The project proposes to replace an existing bridge on U.S. Route 101, which is a high transit corridor. The project is not anticipated to significantly alter vehicle miles traveled once project construction is complete. The project may cause temporary traffic delays during construction.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact

The project would comply with current standards in Caltrans' Highway Design Manual.

d) Result in inadequate emergency access?

Less Than Significant

The project is not anticipated to cause inadequate emergency access. During project construction, U.S. Route 101 would require temporary lane reductions that could cause additional traffic congestion. However, U.S. Route 101 would remain open to traffic and for emergency access. As part of Caltrans' standard construction practices, any temporary road closures that are required for the project will be communicated to the appropriate emergency service providers and planners. Caltrans will coordinate with emergency service providers and planners to ensure that adequate emergency access is maintained through the project construction period.

3.2.18 Tribal Cultural Resources

CEQA Significance Determinations for 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, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

No Impact

A review of available cultural resource documentation revealed that the project area has been previously surveyed with negative results for cultural resources. A field survey of the project site confirmed that past construction activities have caused substantial level of disturbance in the project area, which suggests a low probability for the presence of intact archaeological deposits of cultural importance. The project would not have the potential to affect cultural related resources. (Cultural Resources Review, September 10, 2018)

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 Resources Code Section 5024.1, the lead agency will consider the significance of the resource to a California Native American tribe.

No Impact

Consultations with the California Native American Heritage Commission and various Native American tribes were conducted for the project. As part of the

consultations, letters describing the project, a request for comment, and a request for information on Native American concerns were sent on September 7, 2018. No responses have been received to date. In addition, no tribal cultural resources have been identified in the project area. Therefore, the project would not cause a substantial adverse change in the significance of a tribal cultural resource. (Cultural Resources Review, September 10, 2018)

3.2.19 Utilities and Service Systems

CEQA Significance Determinations for Utilities and Service Systems

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact

The project would not build new water or wastewater treatment facilities and would not require the expansion of existing facilities. The project will be replacing an existing bridge over the San Jose Creek on U.S. Route 101.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant

The project would use minimal water during construction and would not require water to be supplied once it is completed.

The project will involve replanting native plants as part of measures for biological resources. Caltrans complies with water conservation requirements set by executive orders that were issued during Governor Edmund G. Brown Jr.'s term. One of Caltrans' goals is to reduce water consumption by 50 percent compared to 2013 baseline usage. Caltrans often plans and designs temporary irrigation systems to minimize water consumption.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact

The project would replace an existing bridge over the San Jose Creek on U.S. Route 101. The new bridge structure would not generate wastewater. Portable restrooms would be used during project construction.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant

Project demolition and construction are anticipated to generate solid waste. However, any solid waste generated during project construction would be collected and transported to an appropriate recycling, disposal, or processing facility that is properly equipped and capable of handling solid waste materials as required by Caltrans' standards. The project is not anticipated to generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure. In addition, the project would incorporate recycled materials into the project design, where appropriate and feasible.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant

Caltrans' standards require the project to comply with federal and state statutes and regulations related to solid waste. Solid waste that can be recycled would be collected, transported, and processed at appropriate recycling facilities. It is anticipated that certain construction waste, such as concrete, steel, and asphalt, could be recycled and reused on other projects. The project is not anticipated to conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.2.20 Wildfire

CEQA Significance Determinations for Wildfire

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

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant

Traffic access within the project area would be maintained during project construction. Caltrans would coordinate with regional emergency service providers and planners to ensure that project activities do not conflict with adopted emergency response plans or emergency evacuation plans. Adopted emergency response plans or emergency evacuation plans are not anticipated to change as a result of the project.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant

The project is not within an area identified as a high fire hazard severity zone (Santa Barbara County - Fire Hazard Severity Zone Map), and the surrounding area is defined as urban land use. The project would not expose workers to known fire risks and hazards during construction. Project activities have the potential to create an unintended fire. However, the project would incorporate precautions to prevent fire incidents from occurring during construction as part of the code of safe practices in accordance with California Division of Occupational Safety and Health – Fire Protection and Prevention guidance.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant

As part of the project, a nearby overhead sign would need to be shifted to accommodate repaving work. The proposed relocation would not exacerbate fire risk or cause ongoing impacts to the environment. Project activities have the potential to create an unintended fire. However, the project would incorporate precautions to prevent fire incidents from occurring during construction as part of the code of safe practices in accordance with California Division of Occupational Safety and Health – Fire Protection and Prevention guidance.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant

The region farther upstream from the project is identified as a high fire hazard severity zone (Santa Barbara County – Fire Hazard Severity Zone Map), and the San Jose Creek is identified as a floodway channel. There is a potential for post-fire debris, material, and runoff to enter the San Jose Creek and pass through the project site. In the event of an emergency, the project site is anticipated to be evacuated as part of the code of safe practices in accordance with California Division of Occupational Safety and Health – Fire Protection and Prevention guidance.

3.2.21 Mandatory Findings of Significance

CEQA Significance Determinations for Mandatory Findings of Significance

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation Incorporated

The project has the potential to affect several species and their associated habitats within the project area. In addition, the project would cause temporary and permanent impacts to existing plant communities, wetlands, and riparian zones. However, the project will incorporate multiple avoidance, minimization, and/or mitigation measures that would reduce the potential for impacts or off-set any anticipated impacts. See Chapter 2 for additional details.

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less Than Significant with Mitigation Incorporated

The project would remove an existing bridge and build a new bridge at the same location. The new bridge would be similar in design and appearance to the existing bridge. As part of the project, rock slope protection would be installed in the San Jose Creek to prevent erosion and protect new bridge abutments. The project is in a developed urban environment, so the presence of species or habitats that are of considerable value is low. The potential for the project to disturb environmental resources is anticipated to be relatively to be minor.

The project does have the potential to contribute to cumulative impacts to biological species and habitats. The project would cause the permanent loss of riparian habitat and could kill individual special-status species during project construction. However, due to the marginal quality of existing habitats and the low potential for special-status species to occur within the project area, the project is not anticipated to cause substantial impacts to biological species or habitats (see section 2.5). In addition, the project would remove non-native invasive species, remove unnecessary human built features, and restore disturbed sites with native vegetation. These efforts have the potential to improve existing habitats within the project area.

The project would also incorporate avoidance, minimization, and/or mitigation measures that would reduce and/or off-set impacts to environmental resources (see Chapter 2). Therefore, the project is not anticipated to substantially contribute to cumulative impacts to biological species or habitats.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant

During project construction, the project has the potential to affect human beings due to potential temporary increases in noise and air pollution (see section 2.4). However, the project will implement avoidance and minimizations measures as required by Caltrans's Standard Specifications and Caltrans' Standard Special Provisions that pertain to noise and air pollution to reduce potential effects to human beings.

Project construction is anticipated to cause temporary and minor traffic delays within the project area, which could potentially affect emergency services' response times or affect evacuation times in emergency situations (see section 2.4). To minimize potential impacts to emergency services or emergency evacuation plans, traffic access within the project area would be maintained. In addition, the project would include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to the coordination and communication with local emergency service providers and planners to minimize potential project conflicts with existing emergency routes and plans.

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 greenhouse gas 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 by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity, including carbon dioxide (CO₂) methane (CH₄) nitrous oxide (N₂O) tetrafluoromethane (CF₄), hexafluoroethane (C₂F₆), sulfur hexafluoride (SF₆), and various hydrofluorocarbons (HFCs). Carbon dioxide is the most abundant greenhouse gas; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated carbon dioxide.

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas mitigation covers the activities and policies aimed at reducing greenhouse gas emissions to limit or "mitigate" the impacts of climate change. Adaptation, on the other hand, is concerned with 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). This analysis will include a discussion of both.

3.3.1 Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source greenhouse gas reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and greenhouse gas emissions reduction at the project level.

The National Environmental Policy Act (known as NEPA) (42 U.S. Code Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration 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. The Federal Highway

Administration 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. This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability.” 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.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 U.S. Code Section 6201) and Corporate Average Fuel Economy Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the U.S. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy Standards program on the basis of each manufacturer’s average fuel economy for the portion of its vehicles produced for sale in the U.S.

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) the establishment of the Office of Indian Energy Policy and Programs within the Department of 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.

The U.S. Environmental Protection Agency in conjunction with the National Highway Traffic Safety Administration is responsible for setting greenhouse gas emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the U.S. The current standards require vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. The Environmental Protection Agency and the National Highway Traffic Safety Administration are currently considering appropriate mileage and greenhouse gas emissions standards for 2022–2025 light-duty vehicles for future rulemaking.

The Environmental Protection Agency and the National Highway Traffic Safety Administration 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 carbon dioxide emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

State

California has been innovative and proactive in addressing greenhouse gas emissions and climate change by passing multiple senate and assembly bills, and executive orders including, but not limited to, the following:

- Executive Order S-3-05 (June 1, 2005): The goal of this order is to reduce California's greenhouse gas 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 Assembly Bill 32 in 2006 and Senate Bill 32 in 2016.
- Assembly Bill 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: Assembly Bill 32 codified the 2020 greenhouse gas emissions reduction goals outlined in Executive Order S-3-05, while further mandating that the California Air Resources Board create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires the California Air Resources Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.
- Executive Order S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. The California Air Resources Board 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 greenhouse gas reduction goals.
- Senate Bill 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board 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.
- Senate Bill 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under Assembly Bill 32.
- Executive Order B-16-12 (March 2012) orders State entities under the direction of the governor, including the California Air Resources Board, the California Energy Commission, and the California 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.

- Executive Order B-30-15 (April 2015) establishes an interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs the California Air Resources Board to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalents. Finally, it requires the California 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.
- Senate Bill 32, Chapter 249, 2016, codifies the greenhouse gas reduction targets established in Executive Order B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.
- Senate Bill 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands...is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."
- Assembly Bill 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.
- Senate Bill 743, Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles traveled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.
- Senate Bill 150, Chapter 150, 2017, Regional Transportation Plans: This bill requires the California Air Resources Board to prepare a report that assesses progress made by each Metropolitan Planning Organization in meeting their established regional greenhouse gas emission reduction targets.
- Executive Order B-55-18, (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing greenhouse gas emissions.

3.3.2 Environmental Setting

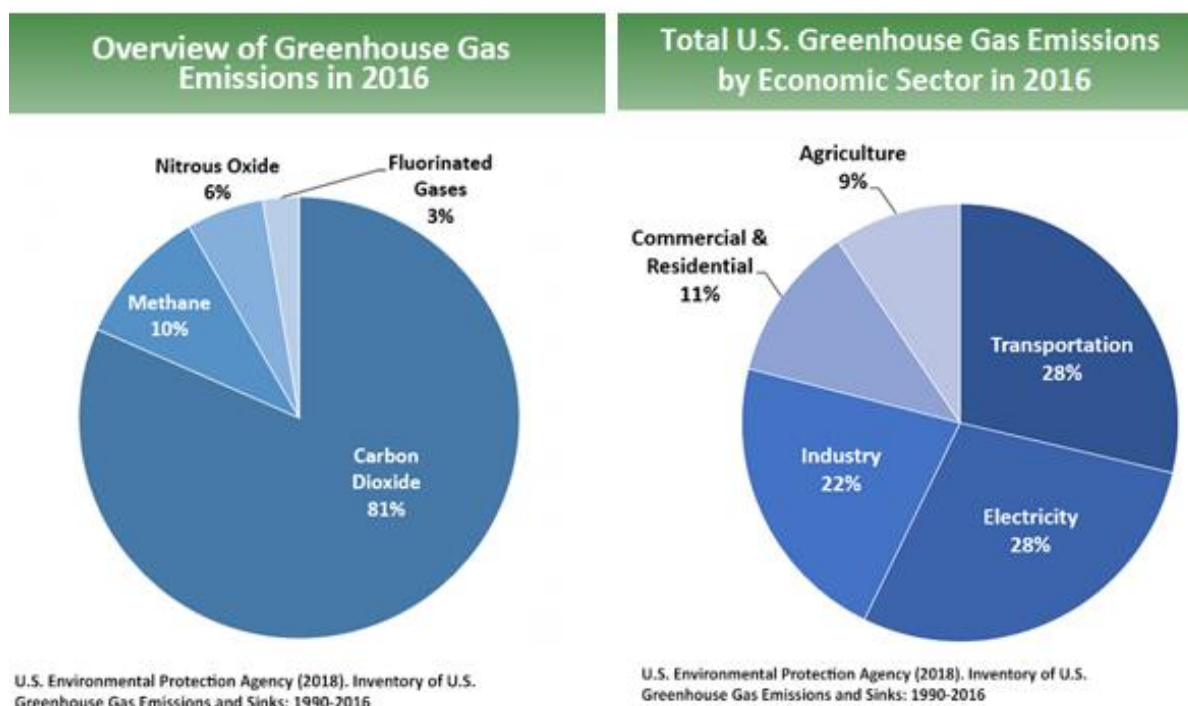
The project is in the city of Goleta in Santa Barbara County. Goleta experiences significant traffic and congestion that is exacerbated by the limited north-south crossing on U.S. Route 101 and the lack of a street grid system.

U.S. Route 101 is a major north-south highway that serves California, Oregon, and Washington. The area that surrounds the project is mainly urban and consists of a mix of residential, commercial, and industrial uses. Santa Barbara County Association of Governments' regional transportation plan/sustainable communities strategy guides transportation and housing development in the project area.

A greenhouse gas emissions inventory estimates the amount of greenhouse gases discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual greenhouse gas emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. The U.S. Environmental Protection Agency is responsible for documenting greenhouse gas emissions nationwide, and the California Air Resources Board does so for the state, as required by Health and Safety Code Section 39607.4.

National Greenhouse Gas Inventory

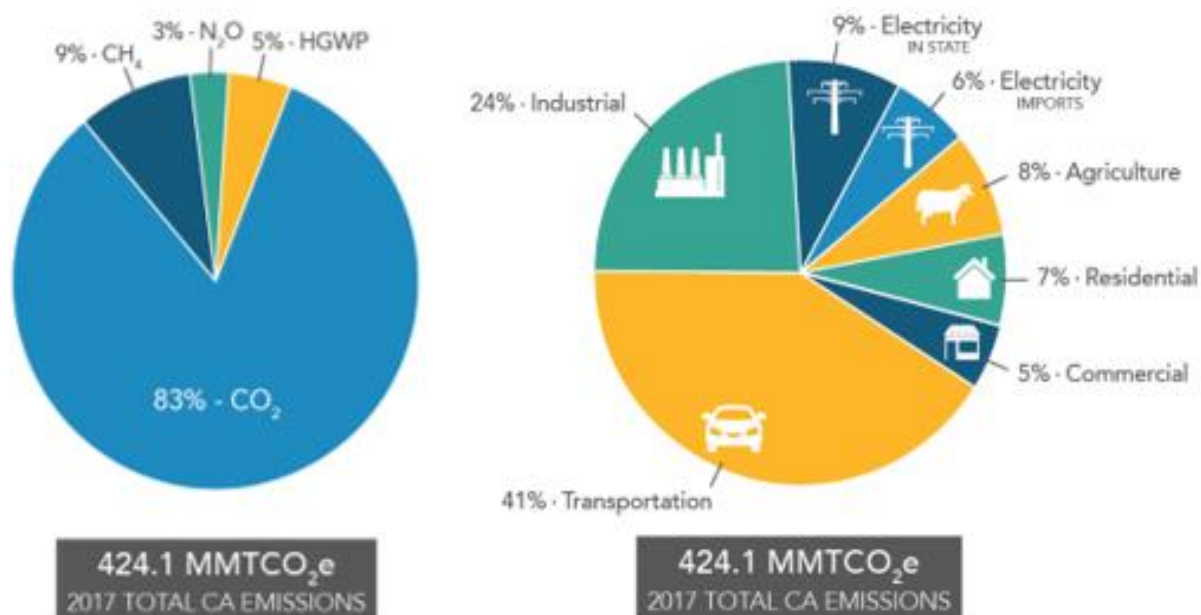
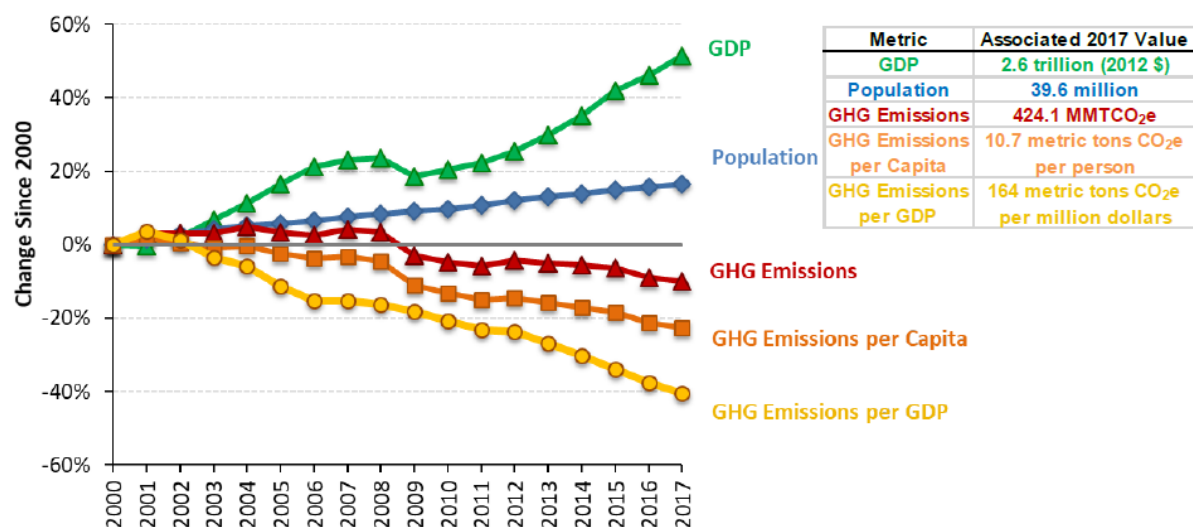
The U.S. Environmental Protection Agency prepares a national greenhouse gas inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of greenhouse gases in the U.S., reporting emissions of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. It also accounts for emissions of carbon dioxide that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store carbon dioxide (carbon sequestration). The 1990-2016 inventory found that of the 6,511 million metric tons of carbon dioxide equivalents of greenhouse gas emissions in 2016, 81 percent is carbon dioxide, 10 percent is methane, and 6 percent is nitrous oxide; the balance consists of fluorinated gases. In 2016, greenhouse gas emissions from the transportation sector accounted for nearly 28.5 percent of U.S. greenhouse gas emissions (see Figure 3-1).

Figure 3-1: U.S. 2016 Greenhouse Gas Emissions

State Greenhouse Gas Inventory

The California Air Resources Board collects greenhouse gas emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year (see Figure 3-2). It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its greenhouse gas reduction goals (see Figure 3-3). The 2019 edition of the greenhouse gas emissions inventory found total California emissions of 424.1 million metric tons of carbon dioxide equivalents for 2017, with the transportation sector responsible for 41 percent of total greenhouse gases. It also found that overall statewide greenhouse gas emissions declined from 2000 to 2017 despite growth in population and state economic output.

Assembly Bill 32 required the California Air Resources Board to develop a scoping plan that describes the approach California would take to achieve the goal of reducing greenhouse gas emissions to 1990 levels by 2020, and to update it every 5 years. The California Air Resources Board adopted the first scoping plan in 2008. The second updated plan, California's 2017 Climate Change Scoping Plan, adopted on December 14, 2017, reflects the 2030 target established in Executive Order B-30-15 and Senate Bill 32. The Assembly Bill 32 Scoping Plan and the subsequent updates contain the main strategies California would use to reduce greenhouse gas emissions.

Figure 3-2 California 2017 Greenhouse Gas Emissions**Figure 3-3 Change in California Gross Domestic Product, Population, and Greenhouse Gas Emissions since 2000****Regional Plans**

The California Air Resources Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Regional Transportation Plan/Sustainable Communities Strategies to plan future projects that would cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005

levels. The project was included in the Santa Barbara County Association of Governments' approved 2040 Regional Transportation Plan (2013) under the project number Go-202. The regional reduction target for Santa Barbara County Association of Governments is 13 percent by 2020 and 17 percent by 2035. The Santa Barbara County Comprehensive Plan, Energy Element, Goal 8.3, instructs the county to implement the Energy and Climate Action Plan to reduce greenhouse gas emissions from community-wide sources by a minimum of 15 percent from 2007 baseline emissions by 2020. The Energy and Climate Action Plan includes greenhouse gas reduction measures such as T4, enhance alternative and active transportation; T5, complete an integrated bikeway system; and BE10, implement best management practices for construction equipment operation. The Santa Barbara County Multi-Modal Transportation Network Vulnerability Assessment identifies portions of the U.S. 101 corridor in the project vicinity as vulnerable to climate change hazards such as flooding, wildfire, and landslide, and expects the county to produce a regional climate adaptation strategy.

The city of Goleta's General Plan/Coastal Land Use Plan Conservation Element directs the city to produce a greenhouse gas inventory and a greenhouse gas reduction plan. Goleta's Climate Action Plan, published in July 2014, fulfilled that directive. Goleta established a greenhouse gas reduction goal of 11 percent below its 2007 emissions by 2020, and a preliminary target of 26 percent below 2020 emissions by 2030. Implementing a bikeways plan is among Goleta's Climate Action Plan strategies for achieving these goals. The General Plan Safety Element also addresses flood risk.

3.3.3 Project Analysis

Greenhouse gas emissions from transportation projects can be divided into those produced during operation of the state highway system and those produced during construction. The main greenhouse gases produced by the transportation sector are carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. Carbon dioxide emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Small amounts of methane and nitrous oxide are emitted during fuel combustion. In addition, a small amount of hydrofluorocarbon emissions is included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Public Resources Code, Section 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (*Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively 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. Although

climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The purpose of the project is to address the structural deficiencies of the San Jose Creek Bridge to ensure U.S. Route 101 is functional and reliable. The project would not add travel lanes, increase the vehicle capacity of the roadway, or increase vehicle miles traveled. Completing the project would not prevent construction of the bikeway proposed by the city of Goleta. While some greenhouse gas emissions during the construction period would be unavoidable, no increase in operational greenhouse gas emissions is anticipated.

Construction Emissions

Construction greenhouse gas emissions would be caused by material processing, on-site construction equipment, and traffic delays. 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 and traffic control during construction phases. Greenhouse gas emissions produced during construction can be off-set to some degree by longer intervals between maintenance and rehabilitation activities.

Construction Climate Change emissions were estimated using Caltrans' Construction Emissions Tool, which used default settings for a bridge replacement project. The estimated average carbon dioxide emissions total is 124 tons per year, or a total of 155 tons generated over a construction period of about 16 months.

All construction contracts include Caltrans' Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify that they are aware of and would comply with all California Air Resources Board emission reduction regulations. Construction contracts also include Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions and reducing construction vehicle emissions can also help reduce greenhouse gas emissions. A Traffic Management Plan would be carried out during project construction to minimize construction-related traffic delays and emissions.

CEQA Conclusion

Although the project would cause a slight increase in greenhouse gas emissions during construction, the project would not cause an increase in operational greenhouse gas emissions. As discussed above, the project would comply with all applicable requirements, such as Santa Barbara Air Pollution Control District's rules for the South Central Coast Air Basin, and restricting idling equipment. Additionally, a Traffic Management Plan would be implemented, which would minimize

construction-related traffic delays and related greenhouse gas emissions. No increase in operational greenhouse gas emissions would occur once the project is completed. Construction-related emissions would be limited through compliance with state and air district requirements and traffic management efforts. The project would not conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases. With the implementation of construction greenhouse gas-reduction measures, the impact would be less than significant.

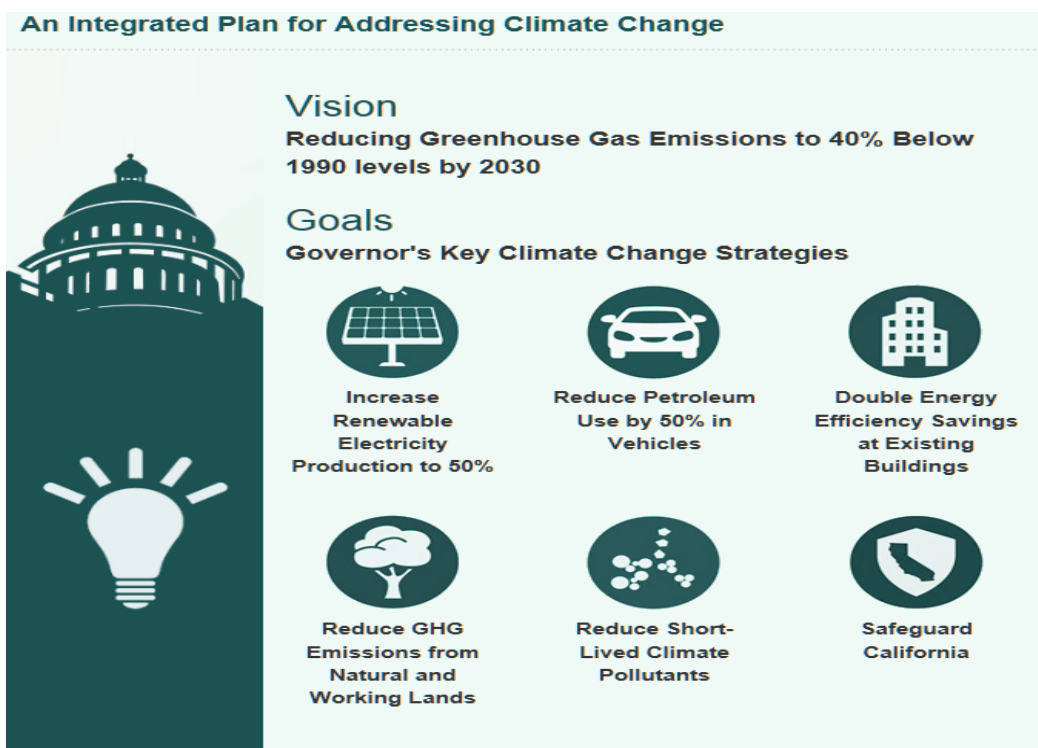
Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. The following section outlines these measures.

3.3.4 Greenhouse Gas Reduction Strategies

Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 greenhouse gas emissions targets. Former Governor Edmund G. Brown Jr. promoted greenhouse gas reduction goals (see Figure 3-4) that involved (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 farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

Figure 3-4 California Climate Strategy



The transportation sector is important to the people and economy of California. To achieve greenhouse gas emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from the transportation and goods movement. Greenhouse gas emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and a reduction of vehicle miles traveled. A key state goal for reducing greenhouse gas emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030.

In addition, Senate Bill 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in aboveground matter and belowground matter.

Caltrans Activities

Caltrans continues to be involved in the governor's Climate Action Team as the California Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in Assembly Bill 32. Both Executive Order B-30-15, (2015), and Senate Bill 32 (2016), set an interim target to cut greenhouse gas 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 is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. In 2016, Caltrans completed the California Transportation Plan 2040, which establishes a new model for developing ground transportation systems, consistent with carbon dioxide reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

Senate Bill 391 (Liu 2009) requires the California Transportation Plan to meet California's climate change goals under Assembly Bill 32. Accordingly, the California Transportation Plan 2040 identifies the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the state's transportation needs. While Metropolitan Planning Organizations have primary responsibility for identifying land use patterns to help reduce greenhouse gas emissions, the California Transportation Plan 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 greenhouse gas emissions, among other goals. Specific performance targets in the plan that will help to reduce greenhouse gas emissions include:

- Increasing percentage of non-auto mode share
- Reducing vehicle miles traveled
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) greenhouse gas emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce greenhouse gas emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's Regional Transportation Plan/Sustainable Communities Strategy; contributes to the state's greenhouse gas reduction targets, and advances transportation-related greenhouse gas emission reduction project types/strategies; and supports other climate adaptation goals (e.g., *Safeguarding California*).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 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 Caltrans' statewide activities to reduce greenhouse gas emissions resulting from agency operations.

Project-Level Greenhouse Gas Reduction Strategies

The following measures would also be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project.

The project would include a Transportation Management Plan that would reduce delays and related short-term increases in greenhouse gas emissions from disruptions in traffic flow. If portable changeable message signs are required as part of the Transportation Management Plan, message signs would be solar powered when possible and would not result in greenhouse gas emissions during use.

Caltrans' Standard Specifications Section 14-9, Air Quality, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. Santa Barbara Air Pollution Control District's requirements would apply to the project. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce greenhouse gas emissions.

The project proposes to revegetate previously disturbed areas, where applicable, following construction completion. Landscaping reduces surface warming and, through photosynthesis, removes carbon dioxide from the atmosphere.

3.3.5 Adaptation

Reducing greenhouse gas emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is anticipated to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and Federal Highway Administration National Environmental Policy Act regulations, policies, and guidance.

The U.S. Global Change Research Program delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of

1990 (15 U.S. Code Chapter 56A Section 2921 et seq). The Fourth National Climate Assessment, published in 2018, presents the foundational science and the “human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways.” Chapter 12, “Transportation,” presents a key discussion of vulnerability assessments. It notes that “asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime.”

The U.S. Department of Transportation Policy Statement on Climate Adaptation in June 2011 committed the department to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of the U.S. Department of Transportation 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.”

The Federal Highway Administration Order 5520 (Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events, December 15, 2014) established Federal Highway Administration policy to strive to identify the risks of climate change and extreme weather events to current and future transportation systems. The Federal Highway Administration has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels.

State efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. California’s Fourth Climate Change Assessment is the state’s effort to “translate the state of climate science into useful information for action” in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or anticipated climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- *Resilience* is the “capacity of any entity—an individual, a community, an organization, or a natural system—to prepare for disruptions, to recover from

shocks and stresses, and to adapt and grow from a disruptive experience.” Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.

- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- *Vulnerability* is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

- Executive Order S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk (Safeguarding California Plan)*. The *Safeguarding California Plan* offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.
- Executive Order S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* in 2010, with instructions for how state agencies could incorporate “sea-level rise projections into planning and decision making for projects in California” in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California—An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.
- Executive Order B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This executive order recognizes that effects of climate change other than sea-level rise also threaten California’s infrastructure. At the direction of Executive Order B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory

group that developed this guidance on how to integrate climate change into planning and investment.

- Assembly Bill 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessment

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure*—Identify Caltrans assets exposed to damage or reduced service life from anticipated future conditions.
- *Consequence*—Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization*—Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of anticipated exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and the development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

Project Adaptation Analysis

Sea-Level Rise

The project is outside the coastal zone and is not in an area prone to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not anticipated.

Floodplains

The project site is next to a Federal Emergency Management Agency designated Zone AE floodplain with a base flood elevation of 56 feet at the San Jose Creek

Bridge at U.S. Route 101. The location is designated as a Federal Emergency Management Agency Special Flood Hazard Area. As described in Section 2.2.1, Hydrology and Floodplain, the new bridge design would remove the existing bridge columns in the creek, remove concrete paving on the bank, reduce the bank slopes, and install rock slope protection. These changes would result in a greater cross-sectional area underneath the bridge. These features would decrease the water surface elevation and provide a margin of resilience to potential future higher flood flows if future precipitation events become more intense, as anticipated under climate change conditions in Santa Barbara County.

Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis required, potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements. Agency consultation for this project has been accomplished through a variety of formal and informal methods, including Project Development Team meetings, interagency coordination meetings, and so on. Public participation will be sought through the release and review of this Initial Study with Proposed Mitigated Negative Declaration and Environmental Assessment. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

Biological Coordination

April 19, 2018: Biologist John Moule submitted a request online through the U.S. Fish and Wildlife Service Information for Planning and Consultation website for an official U.S. Fish and Wildlife Service species list for the project. The online tool *Information for Planning and Consulting* generated a list the same day.

April 19, 2018: John Moule generated an official National Marine Fisheries Service species list from the National Oceanic and Atmospheric Administration California Species List Tool for the project area. The official National Marine Fisheries Service species list was received via email the same day.

September 20, 2018: John Moule contacted Jessica Adams (National Marine Fisheries Service) via email to inquire about suitable dates for dewatering.

November 11, 2018: John Moule updated the official U.S. Fish and Wildlife Service species list through the U.S. Fish and Wildlife Service Information for Planning and Consultation website for the project. The Information for Planning and Consultation website generated a list the same day.

November 11, 2018: John Moule updated the official National Marine Fisheries Service species list from the National Oceanic and Atmospheric Administration California Species List Tool for the project area.

February 27, 2019: John Moule updated the official U.S. Fish and Wildlife Service species list through the U.S. Fish and Wildlife Service Information for Planning and Consultation website for the project. The Information for Planning and Consultation website generated a list the same day.

February 27, 2019: John Moule updated the official National Marine Fisheries Service species list from the National Oceanic and Atmospheric Administration California Species List Tool for the project area.

August 2, 2019: Biologist Connor Ritchie obtained an updated official U.S. Fish and Wildlife Service species list through the U.S. Fish and Wildlife Service Information for Planning and Consultation website for the project.

August 2, 2019: Connor Ritchie obtained an updated official National Marine Fisheries Service species list from the National Oceanic and Atmospheric Administration California Species List Tool for the project area.

October 22, 2019: Connor Ritchie prepared an addendum to the Natural Environment Study that was originally prepared on March 4, 2019, to address proposed changes to rock slope protection installation.

March 11, 2020: Connor Ritchie obtained an updated official U.S. Fish and Wildlife Service species list through the U.S. Fish and Wildlife Service Information for Planning and Consultation website for the project.

March 11, 2020: Connor Ritchie obtained an updated official National Marine Fisheries Service species list from the National Oceanic and Atmospheric Administration California Species List Tool for the project area.

Hydrology Coordination

February 28, 2019: Transportation Engineer Kristen Inkrott notified the city of Goleta's floodplain administrator that project staff would be preparing a floodplain study and would likely prepare a Conditional Letter of Map Revision and submit the Federal Emergency Management Agency "M.T.-2" floodplain application to the city before project completion.

Cultural Resources Coordination

December 19, 2018: Archaeologist Damon Haydu sent out letters to regional Native American tribal groups as part of Section 106 consultation and formal notification required under Assembly Bill 52. Invitation for consultation was offered and no formal consultation was requested by recipients.

Public Participation

The draft environmental document was approved on October 23, 2019. The document was then circulated for public review between December 13, 2019, to January 17, 2020. Based on the public comments received, the draft environmental document was revised and sent back out to the public for recirculation on Monday April 6, 2020.

Chapter 5 List of Preparers

This chapter lists Caltrans' staff members and consultant staff members who were responsible for preparing and reviewing the document and the supporting technical studies for the project.

Caltrans Staff

Myles Barker, Myles, Editorial Specialist. B.A., Mass Communication and Journalism, California State University, Fresno; 5 years of writing and editing experience. Contribution: Technical Editor.

Robert Carr, Associate Landscape Architect. B.S., Landscape Architecture, California Polytechnic University, San Luis Obispo; over 20 years of experience preparing Visual Impact Assessments. Contribution: Visual Impact Assessment.

Matt Fowler, Senior Environmental Planner. B.A., Geographic Analysis, San Diego State University; 18 years of experience in environmental planning. Contribution: Oversight of the Initial Study.

Geramaldi, Associate Environmental Planner (Generalist). B.S., Environmental Geography, California State Polytechnic University, Pomona; 3 years of environmental planning experience. Contribution: Coordinated the environmental process, provided consultant oversight of the Initial Study, and prepared the Initial Study.

Damon Haydu, Associate Environmental Planner (Archaeology). M.A., Cultural Resources Management, Sonoma State University; over 20 years of experience in all phases of cultural resource management. Contribution: Cultural resource review.

Kristen Inkrott, P.E., Transportation Engineer (Civil). B.S., Environmental Engineering, California Polytechnic State University, San Luis Obispo; over 25 years of experience in water resources and hydraulic engineering. Contribution: Hydraulic recommendations, Location Hydraulic Study.

Joel Kloth, Engineering Geologist. B.S., Geology, California Lutheran University; over 30 years of experience in petroleum geology, geotechnical geology, and environmental engineering/geology and hazardous waste. Contribution: Initial Site Assessment.

Lindsay Kozub, Associate Environmental Planner (Architectural Historian). M.A., History/Cultural Resource Management; B.A., History; B.S., Business, Colorado State University; 8 years of experience in historical research and analysis, historic preservation, and cultural resource management. Contribution: Cultural resource review.

Isaac Leyva, Engineering Geologist. B.S., Geology, California State University, Bakersfield; A.S., Cuesta College; over 20 years of experience in petroleum geology, environmental, and geotechnical engineering. Contribution: Initial Site Assessment, Paleontology Technical Report, Water Quality Assessment.

Karl Mikel, Senior Transportation Engineer. M.S., Civil/Environmental Engineering; B.S., Environmental Engineering, California Polytechnic State University, San Luis Obispo; 17 years of professional experience in air quality and noise assessment. Contribution: Air Quality, Noise and Greenhouse Gas Memo.

John Moule, Consultant Associate Biologist/Environmental Planner. B.S., Biology, Humboldt State University; over 20 years of natural resource and biology experience. Contribution: Natural Environment Study.

Connor Ritchie, Biologist/Environmental Planner (Natural Science). B.S., Biological Science, California Polytechnic State University, San Luis Obispo; 4 years of natural resource and biology experience. Contribution: Natural Environment Study.

ICF Staff

Mario Anaya, Senior Environmental Planner. M.P.A., Urban Planning, California State University, Northridge; B.A., Global Studies, University of California, Los Angeles; 10 years of experience in environmental planning. Contribution: Preparation of the Initial Study.

Jennifer Andersen, AICP, Senior Associate. B.A., International Relations, University of Southern California; 7 years of experience in environmental planning. Contribution: Preparation of the Initial Study.

Will Herron, Environmental Planner. B.A., International Relations, University of Southern California; 2 years of experience in environmental planning. Contribution: Preparation of the Initial Study.

Andrew Johnson, Environmental Planner. M.A., Public Policy, University of Southern California; B.A., Business Administration, Pepperdine University. Contribution: Preparation of the Initial Study.

Chapter 6 Distribution List

City of Goleta Planning Office
130 Cremona Drive, Suite B
Goleta, California 93117

County of Santa Barbara Planning Office
123 East Anapamu Street, 2nd Floor
Santa Barbara, California 93101

Goleta Valley Library
500 North Fairview Avenue
Goleta, California 93117

Santa Barbara Public Library
40 East Anapamu Street
Santa Barbara, California 93101

U.S. Fish and Wildlife Service—Ventura Office
2493 Portola Road, Suite B
Ventura, California 93003

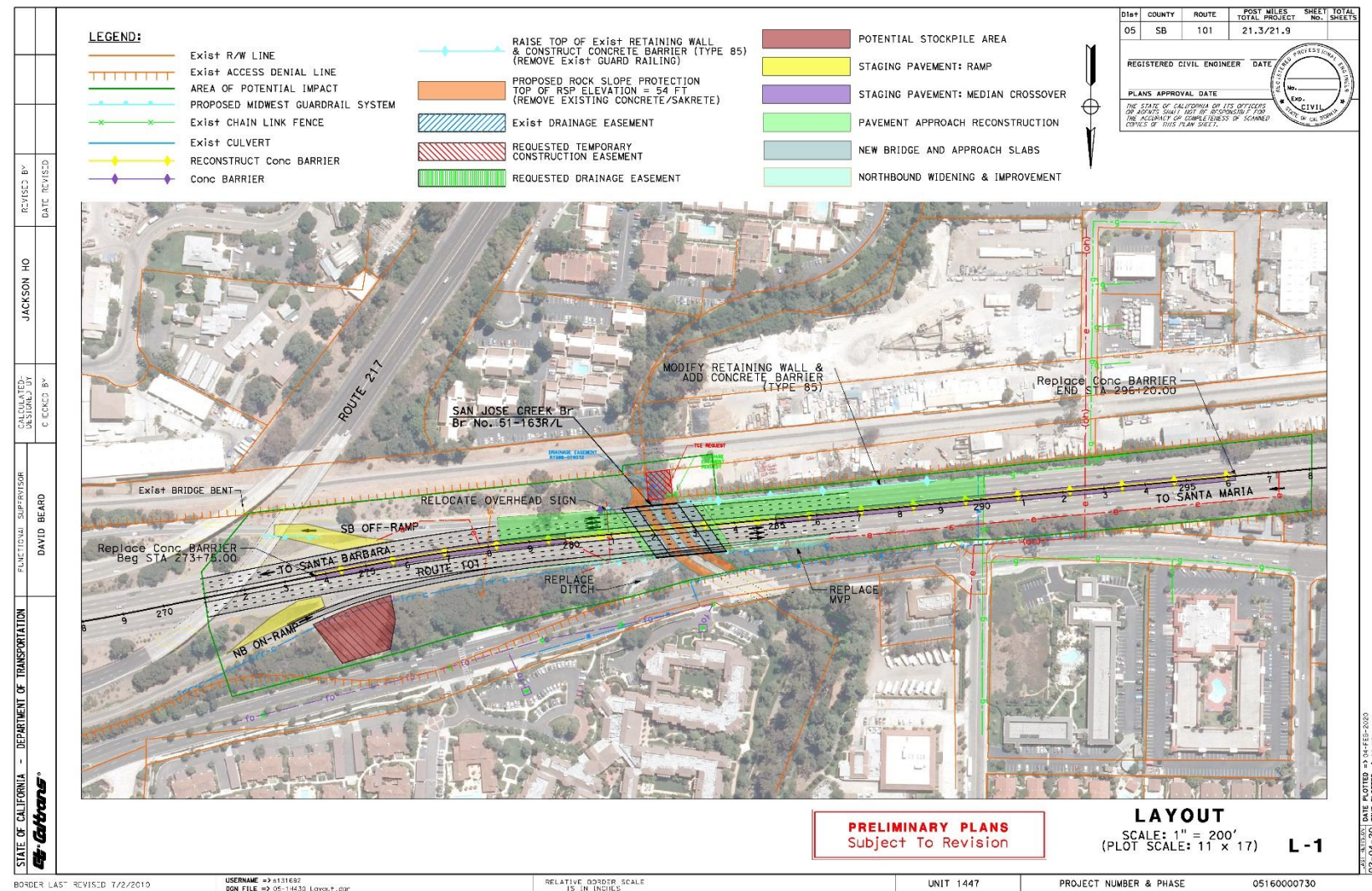
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard
Los Angeles, California 90017

California Department of Fish and Wildlife—South Coast Region
3883 Ruffin Road
San Diego, California 92123

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

This page intentionally left blank

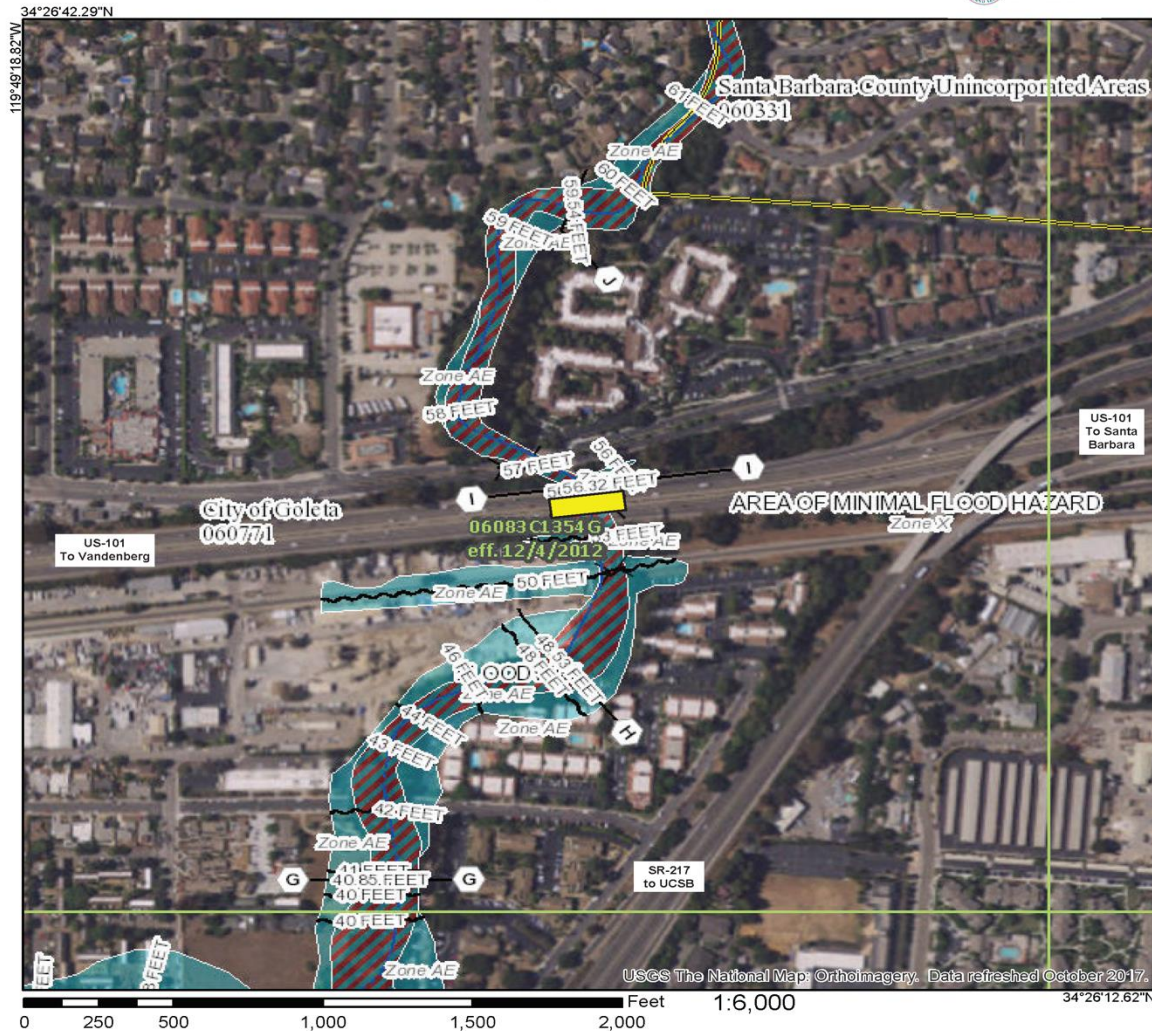
Appendix A Preliminary Project Layout



This page intentionally left blank

Appendix B FEMA Flood Insurance Rate Map

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee. See Notes, Zone X
	Area with Flood Risk due to Levee Zone D
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	Cross Sections with 1% Annual Chance Water Surface Elevation
	Coastal Transect
MAP PANELS	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	Digital Data Available
	No Digital Data Available
	Unmapped
	Location of San Jose Creek Bridge

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/17/2018 at 12:01:54 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

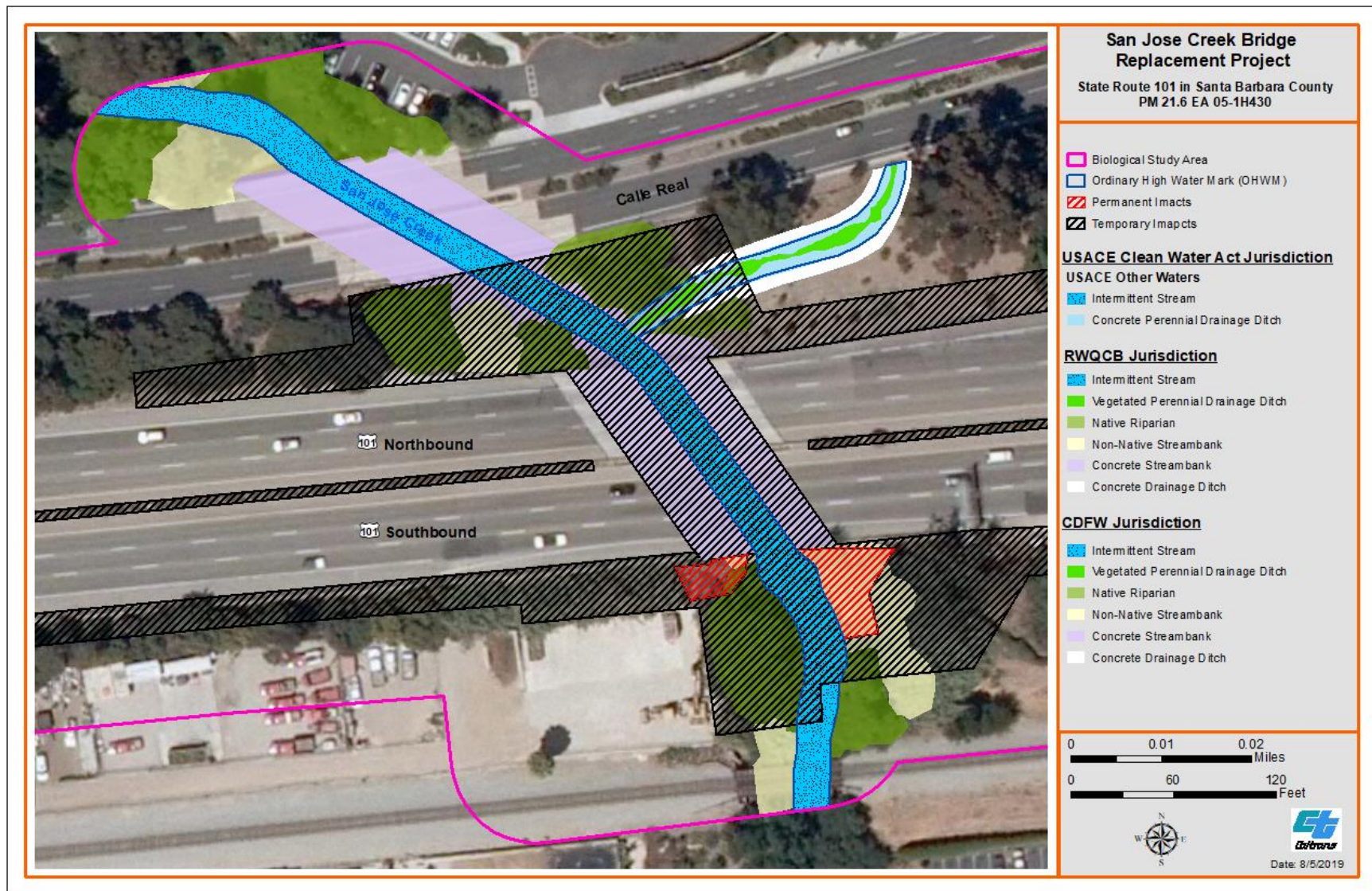
This page intentionally left blank

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DIVISION OF ENGINEERING SERVICES



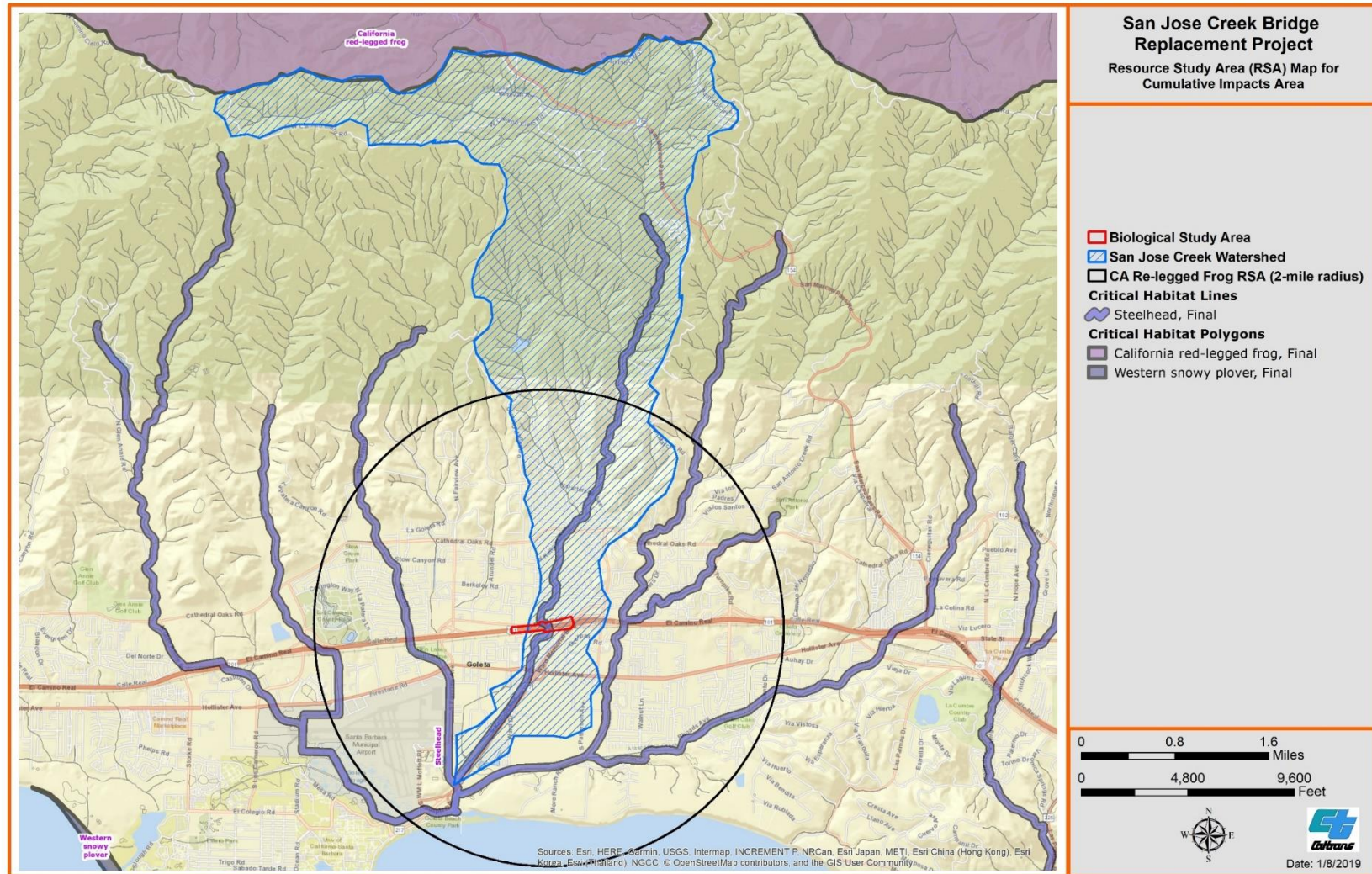
This page intentionally left blank

Appendix D Jurisdictional Waters Area Map



This page intentionally left blank

Appendix E Resource Study Area Map



This page intentionally left blank

Appendix F Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION

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



Making Conservation
a California Way of Life.

November 2019

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

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

A blue ink signature of Toks Omishakin, consisting of a stylized 'T' followed by a series of loops and a horizontal line.

Toks Omishakin
Director

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

This page intentionally left blank

Appendix G Avoidance, Minimization and/or Mitigation Summary

To be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record that follows) would be implemented. During project design, avoidance, minimization, and/or mitigation measures would be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits would be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff members would ensure that the commitments contained in the Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring would take place, as applicable.

Consistency with State, Regional and Local Plans and Programs (Section 2.1.1)

The following measures would be implemented to minimize potential impacts as a result of the proposed project:

General Plan

No measures would be required for the transportation element because the project would not conflict with the transportation element. The project will include Caltrans' Standard Special Provisions and Caltrans' Standard Specifications. Both standards will execute traffic control strategies and actions to control traffic within the project area during the construction period.

No measures would be required for the noise element because the project would not conflict with the noise element. The project will include Caltrans' Standard Special Provisions and Caltrans' Standard Specifications. Both standards will execute noise control strategies and actions within the project area during the construction period.

Bicycle and Pedestrian Master Plan

To avoid conflicts in the project's schedule, process and construction, Caltrans and the city of Goleta are actively collaborating on projects that are being proposed in the local area.

It is anticipated that continued collaboration between the city of Goleta and Caltrans would be required to avoid and minimize potential schedule, design and construction conflicts between the proposed San Jose Creek Bridge Replacement project and the proposed San Jose Multipurpose Path project.

There is the potential to further avoid and minimize construction conflict between the two projects. There is the opportunity for the new bridge construction process to also include the construction of the multipurpose path that is located within the new bridge footprint. This would allow for both projects to be construction at the same

time because they are occurring at the same location. For this opportunity to occur, the city of Goleta will need approvals for the following documents for their proposed San Jose Multipurpose Path:

- Final Project Report
- Final Design Plans

In addition, the city of Goleta and Caltrans will need to approve the following agreements in order to share the responsibilities related to construction cost and maintenance cost of the multipurpose path that would be located within Caltrans' right-of-way:

- Funding Agreement
- Maintenance Agreement

If final documents and agreements are approved, the San Jose Creek Bridge Replacement project would be able to incorporate the portion of the multipurpose path that is underneath the bridge as a component of the bridge replacement construction plan. Construction of the new bridge and the multipurpose path underneath the bridge could be built by a single construction crew.

Cultural Resources (Section 2.1.2)

No cultural resource-related measures are required for the San Jose Creek Bridge Replacement project.

The project would include the following Caltrans' Standard Special Provisions that deal with the chance discovery of previously unknown cultural materials or human remains during project construction:

- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find.
- If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities would stop in any area or nearby area suspected to overlie remains, and the county coroner would be contacted. If the remains are thought by the coroner to be Native American the coroner would notify the Native American Heritage Commission, who, pursuant to Public Resources Code Section 5097.98, would then notify the Most Likely Descendent. At this time, the individual who discovers the remains would contact the District 5 Environmental Branch, so they can work with the Most Likely Descendent on the respectful treatment and arrangement of the remains. Additional provisions of Public Resources Code Section 5097.98 must be followed as applicable.

Hydrology and Floodplain (Section 2.2.1)

The project is not anticipated to adversely affect existing hydrology or floodplains. Therefore, no avoidance, minimization, or mitigation measures are anticipated for the project.

Water Quality and Stormwater Runoff (Section 2.2.2)

To minimize impacts to water quality and stormwater runoff, the following measures would be implemented:

1. The project would implement the following Best Management Practices:
 - a) Job site management
 - b) Preparation of a Water Pollution Control Program to determine the feasibility of incorporating permanent treatment or structural Best Management Practices into the final project design
 - c) Temporary Best Management Practices would include, but would not be limited to, the following:
 - i. Hydraulic mulch
 - ii. Check dams
 - iii. Drainage inlet protection
 - iv. Fiber rolls
 - v. Stabilized construction entrance
 - vi. Designated concrete washout
 - vii. Environmentally Sensitive Area fencing
2. The project will implement appropriate Caltrans' Standard Specification and Caltrans' Standard Special Provisions pertaining to water quality and water pollution control.

Geology, Soils, Seismicity and Topography (Section 2.2.3)

The following measures would be implemented for the project to avoid and or minimize potential impacts:

1. The project would minimize the amount of soil disturbance necessary to complete the project.
2. Additional subsurface investigation would be conducted before to project construction to identify subsurface conditions and to help determine appropriate final design elements required to protect the new bridge structure from potential geologic hazards.

Natural Communities (Section 2.3.1)

The following measures would be implemented to avoid and/or minimize potential impacts as a result of project-related activities:

1. Environmentally Sensitive Area fencing, or flagging, will be installed around the anticipated maximum boundary of the project's working limits required for project completion in order to prevent unnecessary disturbances to habitats and vegetation within the project area.
2. Special provisions for the installation of Environmentally Sensitive Area fencing or flagging will be included in the construction contract and identified in the project plans. Prior to the start of construction activities, Environmentally Sensitive Areas will be delineated in the field and approved by qualified Caltrans environmental division staff.
3. Impacts to native species will require the project to conduct restoration plantings onsite. Restoration plantings will consist of native species appropriate for the project area.

Wetlands and Other Waters (Section 2.3.2)

The following measures would be implemented to avoid and minimize potential impacts on jurisdictional and wetland areas resulting from the project:

1. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing, or flagging will be installed around jurisdictional waters as well as the dripline of any trees that are to be protected within the project limits. Caltrans-defined Environmentally Sensitive Areas will be noted on design plans and delineated in the field prior to the start of construction activities.
2. During construction, all project-related hazardous materials spills within the project site will be cleaned up immediately. Readily accessible spill prevention and cleanup materials will be kept on-site by the contractor at all times during construction.
3. During construction, erosion control measures will be implemented. Appropriate temporary Best Management Practices will be installed as needed between the project site and jurisdictional "other waters" and riparian habitat. At a minimum, erosion controls will be maintained by the contractor daily throughout the construction period.
4. During construction, cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will either be a minimum of 100 feet from aquatic areas or, if the area is less than 100 feet from aquatic areas, surrounded by barriers or secondary containment items (e.g., fiber rolls or equivalent). The staging areas will conform to the Best Management Practice applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles will be checked and maintained by the contractor daily to ensure proper operation and avoid potential leaks or spills.
5. Habitat restoration and native re-plantings will be required for the project. It is anticipated that compensatory mitigation can occur entirely within the project site, consisting of native plants appropriate to the project area. Plant restoration is proposed at a 1 to1 ratio for acreage of temporary and

permanent impacts. It is anticipated that a 3 to 1 replacement ratio would be required for impacts to riparian trees. A plant establishment period will be required as part of the replanting process.

Plant Species (Section 2.3.3)

The project is not anticipated to impact plant species. No avoidance, minimization, and/or mitigation measures are proposed for plant species.

Animal Species (Section 2.3.4)

The following measures would be implemented to reduce potentially significant impacts to less than significant impacts under CEQA for special-status animal species.

Coast Range Newt, Western Pond Turtle, and Two-Striped Garter Snake

1. Prior to initiation of stream dewatering, Caltrans will conduct a worker environmental training program, including a description of the Coast Range newt, western pond turtle, and two-striped garter snake; their legal/protected status; their proximity to the project site; and avoidance/minimization measures to be implemented during the project.
2. Prior to construction, a biologist, determined qualified by Caltrans, will survey the biological study area and capture and relocate Coast Range newts, two-striped garter snakes, and western pond turtles, if present, to suitable habitat upstream within the biological study area. Observations of species of special concern or other special-status species will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion. If these species or other aquatic species of special concern are observed during construction, they will likewise be relocated by a qualified biologist to suitable habitat outside the impact area.

Northern California Legless Lizard and Coast Horned Lizard

3. All excavation and vegetation removal within suitable habitat will be monitored by a qualified biologist. The qualified biologist will be on-site and monitoring during all new excavations and vegetation removal within suitable habitat.
4. Northern California legless lizards, coast horned lizards, or any species discovered during monitoring, excluding state or federal listed species, will be captured and relocated by the qualified biologist to suitable habitat outside the biological study area. Observations of species of special concern or other special-status species will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

Cooper's Hawk and Other Nesting Bird Species

5. If feasible, tree removal and trimming will be scheduled to occur from October 1 to January 31, outside of the typical nesting bird season, to avoid potential

impacts to nesting birds. If it is not feasible to conduct this work outside of the nesting bird season, a nesting bird survey will be conducted by a qualified biologist no more than 14 days prior to the start of construction. If an active nest is found, a qualified biologist will determine an appropriate buffer, or a monitoring strategy based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy implemented until a qualified biologist has determined that the nest is no longer active.

6. It is recommended that bird nests be excluded from the existing bridge. Nesting bird exclusion methods may include, installation of thick plastic sheeting, one-way exclusion devices over drain holes, removing/knocking down nests before they contain eggs or nestlings, or other methods approved by California Department of Fish and Wildlife. The required time for installation of bird exclusion devices is outside of the nesting season (i.e., implement exclusion methods from October 1 to January 31).
7. During construction, active bird nests will not be disturbed and eggs or young of birds protected by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, destroyed, injured, or harassed at any time. If an active nest is found, a qualified biologist will determine an appropriate buffer using Environmentally Sensitive Area fencing or a monitoring strategy based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy implemented until a qualified biologist has determined that the nest is no longer active.

Pallid Bat, Western Red Bat, Yuma Myotis, and Other Bat Species

8. A qualified biologist will conduct a preconstruction survey of the Route 101 and Calle Real bridges for bat activity at least 14 days prior to construction. If any roosting bats or evidence of roosting is observed, exclusion devices will be installed over the roosting habitat when bats are not present.
9. At least 14 days prior to construction, the human-made bat box under the bridge on Calle Real will be covered with an exclusion device when bats are not present. The exclusion device will be removed at the completion of construction.
10. If tree removal is required during the bat maternity roosting season (February 15 to September 1), a bat roost survey will be conducted by a qualified biologist within 7 days prior to removal. If an active bat roost is found, Caltrans will coordinate with the California Department of Fish and Wildlife to determine an appropriate buffer, based on the habits and needs of the species. Readily visible exclusion zones will be established in areas where roosts must be avoided, using Environmentally Sensitive Area fencing. Work in the buffer area will be avoided until a qualified biologist has determined that roosting activity has ceased. Active bat maternity roosts will not be disturbed or destroyed at any time.
11. Compensatory Mitigation: The existing Route 101 bridges showed no signs that they supported roosting bats. Only a single nest for a cliff swallow was

found; the nest could have been used by bats for roosting (although it was broken). No bat roosting habitat is anticipated to be permanently lost as a result of the project. Impacts on vegetation would be offset by replacement plantings within the project limits, which would also replace potential roosting habitat. No additional compensatory mitigation is proposed for bats.

San Diego Desert Woodrat

12. No more than 14 days prior to construction activities, a pre-construction survey will be conducted within the biological study area by a qualified biologist to determine the presence or absence of woodrat middens.
13. If woodrat middens are located during this survey, the qualified biologist will establish an Environmentally Sensitive Area with a 25-foot buffer around each midden. No project activities requiring grading, mechanized equipment or vehicles, or large crews will be allowed within the 25-foot protective buffer.
14. If project activities cannot avoid affecting the middens, then a qualified biologist will dismantle the middens by hand prior to grading or vegetation removal activities. The midden dismantling will be conducted such that the midden material is removed slowly while personnel look for young woodrats. The material will be placed in a pile at the closest undisturbed adjacent habitat but more than 50 feet from construction activities.
15. If young are encountered during midden dismantling, the dismantling activity will be stopped, and the material replaced back on the nest. The nest will be left alone, then rechecked in 2 to 3 weeks to see if the young are out of the nest or capable of being out on their own (as determined by a qualified biologist); once the young can fend for themselves, the nest dismantling can continue.

Threatened and Endangered Species (Section 2.3.5)

The following measures would be implemented to reduce potentially significant impacts under CEQA to threatened and endangered species to less than significant.

Southern California Steelhead and Critical Habitat

The avoidance, minimization, and/or mitigation measures listed throughout Section 2.2 would reduce impacts on steelhead critical habitat.

The measures listed below would reduce impacts on the Southern California steelhead:

1. Prior to initiation of stream dewatering, a qualified biologist will conduct a worker environmental training program, including a description of steelhead, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating the Federal Endangered Species Act and permit conditions.
2. During construction, instream work, will be limited to the low-flow period, from June 1 and October 31, in any given year when surface water is likely to be at

- the seasonal minimum to avoid adult steelhead spawning migration and peak smolt migration. Deviations from this work window will be made only with permission from Caltrans and the relevant regulatory agencies.
3. A qualified biologist will be retained with experience in Southern California steelhead biology and ecology; aquatic habitats; biological monitoring, including dewatering; and capturing, handling, and relocating fish species. The biological monitor(s) will continuously monitor the placement and removal of any creek diversion and dewatering system to capture steelhead and other native fish species and relocate them to suitable habitat as appropriate. The monitor(s) will capture steelhead in the biological study area just prior to dewatering and any remaining stranded steelhead immediately after dewatering. Steelhead will be relocated to suitable habitat upstream of the work area, using methods approved by the appropriate regulatory agencies. This may include, but not necessarily be limited to, seine-netting, dip-netting, providing aerated water in buckets for transport, and ensuring adequate water temperatures during transport. The biologist will note the number of steelheads observed in the affected area, the number of steelheads captured and relocated, and the date and time of the collection and relocation.
 4. During instream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes will be completely screened with no larger than $\frac{3}{32}$ -inch (2.38-millimeter) wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumped water will be directed through a silt filtration bag and/or into a settling basin, allowing the suspended sediment to settle out prior to re-entering the stream(s) outside of the isolated area.
 5. When the biological monitors are on-site, they will monitor erosion and sediment controls to identify and correct any conditions that could adversely affect steelhead or steelhead habitat. The biological monitors will be granted the authority to halt work activity as necessary and recommend measures to avoid/minimize adverse effects on steelhead and steelhead habitat.
 6. Vibration and oscillation of piles will be used to the greatest extent feasible to install piles and reduce the need for hammer driving.

California Red-Legged Frog

7. Only U.S. Fish and Wildlife Service-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
8. Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.
9. A U.S. Fish and Wildlife Service-approved biologist will survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and the individuals are likely to be killed or injured by work activities, the approved biologist will be allowed

- sufficient time to move them from the site before work begins. The U.S. Fish and Wildlife Service-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat where they will not be affected by the activities associated with the project. The relocation site will be in the same drainage to the extent practicable. Caltrans will coordinate with U.S. Fish and Wildlife Service on the relocation site prior to the capture of any California red-legged frogs.
10. Before any activities begin on a project, a U.S. Fish and Wildlife Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, with a qualified person on hand to answer any questions.
 11. A U.S. Fish and Wildlife Service-approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, Caltrans will designate a person to monitor on-site compliance with all minimization measures. The U.S. Fish and Wildlife Service-approved biologist will ensure this monitor receives the training outlined above regarding the identification of California red-legged frogs. If the monitor or the U.S. Fish and Wildlife Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and U.S. Fish and Wildlife Service during review of the proposed action, that person will notify the resident engineer immediately. The resident engineer will resolve the situation by requiring that all actions that are causing the effects be halted. When work is stopped, the U.S. Fish and Wildlife Service will be notified as soon as possible.
 12. During project activities, all trash that may attract predators or scavengers will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and debris will be removed from work areas.
 13. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies. The monitor will ensure that habitat contamination does not occur during operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and appropriate measures to take should a spill occur.
 14. Habitat contours will be returned to a natural configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service

and Caltrans determine that it is not feasible, or modification of original contours would benefit the California red-legged frog.

15. The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to complete the project. Environmentally Sensitive Areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact on California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.
16. Caltrans will attempt to schedule work at times of the year when impacts to the California red-legged frog would be minimal. For example, work that would create large pools that support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools, which are important to maintaining California red-legged frog populations through the driest portions of the year, would be avoided, to the maximum degree practicable, during late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the U.S. Fish and Wildlife Service during project planning will be used to assist in scheduling work activities and avoiding sensitive habitats during key times of year.
17. To control sedimentation during and after project completion, Caltrans will implement the Best Management Practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act. If Best Management Practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the U.S. Fish and Wildlife Service.
18. If a work site is to be temporarily dewatered by pumping, 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. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that allows the flow to resume with the least disturbance to the substrate. Alteration of the streambed will be minimized to the maximum extent possible; any imported material will be removed from the streambed upon completion of the project.
19. Unless approved by the U.S. Fish and Wildlife Service, water will not be impounded in a manner that attracts California red-legged frogs.
20. A U.S. Fish and Wildlife Service-approved biologist will permanently remove any exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus*; *Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The U.S. Fish and Wildlife Service-approved biologist will be responsible for ensuring that his or her activities comply with the California Fish and Game Code.

21. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.
22. To ensure that diseases are not conveyed between work sites by the U.S. Fish and Wildlife Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force will be followed at all times.
23. Project sites will be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the extent practicable. Invasive exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the U.S. Fish and Wildlife Service and Caltrans determine that it is not feasible or practical.
24. Caltrans will not use herbicides as the primary method for controlling invasive exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site, the following additional protective measures for the California red-legged frog will be implemented:
 - a) Caltrans will not use herbicides during the breeding season for the California red-legged frog.
 - b) Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur.
 - c) Giant reed and other invasive plants will be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®.
 - d) Licensed and experienced Caltrans personnel or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site.
 - e) All precautions will be taken to ensure that no herbicide is applied to native vegetation.
 - f) Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water).
 - g) Foliar applications of herbicide will not occur when wind speeds are more than 3 miles per hour.
 - h) No herbicides will be applied within 24 hours of forecast rain.

- i) Applications of herbicides will be done by qualified Caltrans personnel or contractors to ensure that overspray is minimized, and all applications are in accordance with label recommendations; all required and reasonable safety measures will be implemented. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program, county bulletins.
- j) All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and taking the appropriate measures should a spill occur.

Southwestern Willow Flycatcher and Least Bell's Vireo

- 25. If feasible and regulatory approvals allow, tree removal and trimming will be scheduled to occur from October 1 and January 31, outside of the typical nesting bird season, to avoid potential impacts on nesting birds. If it is not feasible to conduct this work outside the nesting bird season, nesting bird surveys should be conducted by a qualified biologist no more than 14 days prior to the start of construction. If an active nest is found, a qualified biologist will determine an appropriate buffer or a monitoring strategy, based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy will be implemented until a qualified biologist has determined that the nest is no longer active.
- 26. If the least Bell's vireo and/or southwestern willow flycatcher is observed within 100 feet of the biological study area during construction, a qualified biologist will implement an exclusion zone. Work will be avoided within the exclusion zone until the least Bell's vireo and/or southwestern willow flycatcher is located more than 100 feet from project-related disturbance. If an active least Bell's vireo and/or southwestern willow flycatcher nest is observed within 100 feet of the biological study area, all project activities will immediately cease, and Caltrans will contact the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife within 48 hours. If required, Caltrans will then initiate formal Federal Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service, as well as California Endangered Species Act coordination for least Bell's vireo and/or southwestern willow flycatcher, and implement additional measures as necessary.
- 27. It is recommended that bird nests be excluded from the existing bridge. Nesting bird exclusion methods may include installing thick plastic sheeting, placing one-way exclusion devices over drain holes, removing/knocking down

nests before they contain eggs or nestlings, or using other methods approved by the California Department of Fish and Wildlife. The required time for installation of bird exclusion devices is outside the nesting season (i.e., implement exclusion methods from October 1 to January 31).

28. During construction, active bird nests will not be disturbed, and the eggs or young of birds that are protected by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, destroyed, injured, or harassed at any time. If an active nest is found, a qualified biologist will determine an appropriate buffer, using Environmentally Sensitive Area fencing or a monitoring strategy, based on the habits and needs of the species. The buffer area will be avoided, or the monitoring strategy will be implemented until a qualified biologist has determined that the nest is no longer active.
29. Temporary impacts on potential nesting habitat would be offset by replacement plantings within the project limits (Section 2.3.2).

Invasive Species (Section 2.3.6)

The following measures would be implemented to avoid and/or minimize potential invasive species impacts caused by project construction activities.

1. During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.
2. Only clean fill will be imported. When practicable, invasive exotic plants in the project site will be removed and properly disposed of. All vegetation removed from the construction site will be taken to a landfill to prevent the spread of invasive species. If soil from weedy areas must be removed off-site, the top 6 inches containing the seed layer in areas with weedy species will be disposed of at a landfill as well. Landscape plantings and the erosion-control seed mix will not include any species from the California Invasive Plant Council Invasive Plant Inventory (California Invasive Plant Council 2017).
3. Construction equipment will be free of excessive dirt that may contain weed seed before entering the construction site. If necessary, wash stations, either on-site or off-site, will be established for construction equipment under the guidance of Caltrans to avoid or minimize the spread of invasive plants and/or seed within the construction area.
4. All giant reed within the project limits will be removed mechanically, removing as much root and rhizome material as possible.
5. The appropriate herbicide selected, and its application will follow these guidelines:
 - a. Chemical treatments for giant reed will be a glyphosate-based herbicide approved by the U.S. Fish and Wildlife Service for use near wetlands, such as Aquamaster® or Rodeo®.

- b. All precautions will be taken to ensure that no herbicide is applied to native vegetation.
 - c. Herbicides will not be applied on or near open water (no closer than 60 feet from open water).
 - d. Foliar applications of herbicide will not occur when wind speeds exceed 3 miles per hour.
 - e. No herbicides will be applied within 24 hours of forecast rain.
 - f. Application of all herbicides will be done by qualified Caltrans personnel or contractors to ensure that overspray is minimized, all applications are made in accordance with label recommendations, and all required and reasonable safety measures are implemented. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program, county bulletins.
 - g. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Prior to the onset of work, Caltrans will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and taking the appropriate measures should a spill occur.
6. A follow-up control strategy involving foliar spraying of an appropriate herbicide over the leaves of any re-sprouting giant reed will occur no sooner than 21 days in the excavated areas and no later than 42 days in excavated areas. Additional follow-up spraying of any regrowth will be conducted in the next growing season. Licensed and experienced Caltrans personnel or a licensed and experienced contractor will use a hand-held sprayer for follow-up foliar applications of herbicide.
7. On-site mitigation replacement plantings will include native plant species. The erosion-control seed mix will include California native plants that are suitable for the vicinity.

Construction Impacts (Section 2.4)

The project would incorporate the measures listed below to address potential temporary impacts associated with construction activities.

- **Parks and Recreation Facilities**

It is anticipated that temporary impacts on parks and recreational facilities would result from construction activities that generate noise and dust. Measures to address construction-generated noise and dust are discussed in the Noise and Air Quality portions of this section.

- Emergency Services

Temporary construction impacts on emergency services are anticipated to be minor as emergency services will still be allowed to access the project area during construction. The proposed project will coordinate and notify regional emergency service providers of construction related activities to provide advance notice and to allow for planning. Emergency service providers will be notified of any project activities that may have the potential to restrict or prevent emergency service access within the project area. The project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to actions and strategies that will help to maintain a safe environment for construction workers and the traveling public.

- Traffic and Transportation

Temporary construction impacts on traffic and transportation is anticipated to be minor as traffic access will be maintained within the project area. The project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions that pertain to traffic management and traffic control. Caltrans' traffic management and traffic control will include typical actions and strategies implemented during project construction to maintain traffic access within the project area while keeping the traveling public separated from construction activities. These strategies would include but is not limited to: reduction of travel lanes to allow for construction to occur and traffic to continue simultaneously, reduction of the speed limit to reduce the potential for traffic incidents, and installation of construction warning signs to inform the public.

To minimize impact to traffic as a result of short-term temporary ramp closures, the following will be implemented: ramp closures will not exceed 12 continuous hours, ramp closures will not occur for more than two consecutive days, ramp closures will occur outside of normal peak traffic hours and ramp closures will occur at night when feasible and appropriate.

- Air Quality

Caltrans' Standard Specifications and Caltrans' Standard Special Provisions pertaining to dust control and dust palliative application are required for all project construction to effectively reduce and control impacts related to temporary construction emissions. The provisions for Caltrans' Standard Specifications Section 10-5, Dust Control, and Section 14-9, Air Pollution Control, require the contractor to comply with all California Air Resources Board and Santa Barbara County Air Pollution Control District rules, ordinances, and regulations. In addition, the project-level Stormwater Pollution Prevention Plan would provide water pollution control measures that would cross-correlate with standard dust emission minimization measures, such as covering soil stockpiles, watering haul roads, watering excavation and grading areas, and so on. Furthermore, the project will include Caltrans' Standard Specifications and Caltrans' Standard Special Provisions pertaining to the collection and containment of debris and trash in order to effectively capture all waste materials, thereby preventing any materials from entering the creek or migrating off-site during windy conditions. All

stockpiled construction debris should, at a minimum, be covered daily or be off-hauled as soon as possible.

- Noise

In addition to Caltrans' Standard Specification Section 14-8, Noise and Vibration, the following control measures would be implemented to minimize noise and vibration during periods of construction:

- a) Use equipment with manufacturer's recommended noise abatement measures, such as mufflers, engine enclosures and engine vibration isolators intact and operational. All construction equipment should be inspected at periodic intervals during construction to ensure proper maintenance and presence of noise control devices.
- b) Notify surrounding residences in advance of the construction schedule when unavoidable construction noise and upcoming construction activities are anticipated to produce an adverse noise environment above the local ambient noise. This notice will be given 2 weeks in advance. Notices should be published in local news media with the dates and duration of proposed construction activity. The District 5 Public Information Office posts notices of proposed construction and potential community impacts after receiving notice from the resident engineer.
- c) Include the following general measures in the resident engineer folder and implement as appropriate to further minimize temporary construction noise impacts:
 - I. Whenever possible, limit all phases of construction to acceptable hours, Monday through Friday.
 - II. Shield especially loud pieces of stationary construction equipment.
 - III. Locate portable generators, air compressors, etc., away from sensitive noise receptors.
 - IV. Limit the grouping of major pieces of equipment that operate in one area to the greatest extent feasible.
 - V. Place heavily trafficked construction areas, such as the maintenance yard, as well as equipment, tools, and construction-oriented operations, in locations that would be least disruptive to surrounding sensitive noise receptors.
 - VI. Consult the district's noise staff if complaints are received during the construction process.

List of Technical Studies

The following technical studies were used in preparation of this Initial Study/Environmental Assessment:

Structures Preliminary Geotechnical Report: August 19, 2016

Hazardous Waste Technical Memo: February 14, 2018

Air Quality, Noise, and Greenhouse Gas Memo: June 5, 2018

Revised Air Quality, Noise, and Greenhouse Gas Memo: February 12, 2020

Water Quality Assessment: July 6, 2018

Paleontology Assessment: July 6, 2018

Cultural Resources Review: September 10, 2018

Location Hydraulic Study: November 6, 2018

Revised Location Hydraulic Study: February 4, 2020

Visual Impact Assessment: February 12, 2019

Natural Environment Study: March 4, 2019

Natural Environment Study, Addendum: October 23, 2019

This page intentionally left blank