SR-74 BRIDGE REPLACEMENT PROJECT

RIVERSIDE COUNTY, CALIFORNIA
DISTRICT 8 – RIV – 74 (PM 2.9/3.2 & 53.3/53.5)
EA 08-1G470
PN 0816000001

Draft Initial Study with [Proposed] Mitigated Negative Declaration/Environmental Assessment and Draft Section 4(f) Evaluation

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 USC 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.

December 2020

This page intentionally left blank.

General Information about This Document

What's in this document:

The California Department of Transportation (Department), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study/Environmental Assessment (IS/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Riverside County, California. The Department is the lead agency under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization and/or mitigation measures.

What you should do:

- Please read this document.
- This document is available electronically for review at the following website: SR74BridgeReplacement.com
- Attend the online public hearing scheduled for: **January 21, 2021 from 5:00 pm to 6:30 pm**. The online hearing can be accessed at the following link: tinyurl.com/SR74Webinar. You can also participate via phone by dialing (669) 900-9128, Webinar ID: 912-7034-1308.
- We'd like to hear what you think. If you have any comments about the proposed project, send your written comments via postal mail or email to the Department by the deadline.
- Submit comments via postal mail to:
  Renetta Cloud
  Senior Environmental Planner
  California Department of Transportation
  464 West 4th Street, 6th Floor, MS-823
  San Bernardino, CA 92401-1400
- Submit comments via email to: SR74.BridgeReplacement@dot.ca.gov
- Please be sure to submit comments by the deadline: **February 8, 2021**.

What happens next:

After comments are received from the public and reviewing agencies, the Department, as assigned by FHWA, 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 obtained, the Department could design and construct all or part of the project.

Alternative formats:

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 call or write to Terri Kasinga, Chief, Public and Media Affairs, 464 W. 4th Street, 6th floor, San Bernardino, CA 92401-1400; (909) 383-4646; or use the California Relay Service 1-800-735-2929 (TTY to Voice), 1-800-735-2922 (Voice to TTY), 1-800-855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech to Speech), or 711.

This page intentionally left blank.

SCH # _____
08-RIV-74-PM 2.9/3.2 & 53.3/53.5
EA 08-1G470
PN 0816000001

Replace Morrill Canyon Bridge (Bridge No. 56 0169, PM 3.08) and Strawberry Creek Bridge (Bridge No. 56 0180, PM 53.5) on State Route 74 in Riverside County, California.

Draft Initial Study with (Proposed) Mitigated Negative Declaration/ Environmental Assessment and Draft Section 4(f) Evaluation

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

THE STATE OF CALIFORNIA
Department of Transportation

Typed/Printed Name
12/22/2020
_____
Date of Approval

_____
David Bricker
Deputy District Director
District 8 Division of Environmental Planning
California Department of Transportation
NEPA and CEQA Lead Agency

The following person may be contacted for more information about this document:

Renetta Cloud
Senior Environmental Planner
California Department of Transportation
464 W. Fourth Street, MS-823
San Bernardino, CA 92401-1400

This page intentionally left blank.

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (the Department or Caltrans) proposes to replace Morrill Canyon Bridge (Bridge No. 56 0169, Post Mile [PM] 3.08) and Strawberry Creek Bridge (Bridge No. 56 0180, PM 53.5) on State Route 74 (SR-74) in Riverside County.

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the Department's intent to adopt an MND for this project. This does not mean that the Department's decision regarding the project is final. This MND is subject to change based on comments received by interested agencies and the public.

The Department 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 proposed project would have no effect on hydrology and water quality, land use and planning, mineral resources, paleontological resources, population and housing, public services, recreation, and tribal cultural resources.
- In addition, the proposed project would have less-than-significant effects on aesthetics, agriculture and forest resources, air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, utilities and service systems, transportation, and wildfire.
- With the following mitigation measures incorporated, the proposed project would have less-than-significant effects on biological resources and cultural resources:

BIO-1 Equipment Staging, Storing, and Borrow Sites: Equipment, vehicles, and materials staged and stored in Caltrans right of way must be sited in previously paved or previously disturbed areas only and must avoid native vegetation. Approval of additional staging, storing or borrow sites must require the Caltrans Biologist to analyze project impacts and provide authorization.

BIO-2 Artificial Lighting: Artificial lighting for the project site must be directed specifically at the work site only.

BIO-3 Pre-Construction Surveys: Pre-construction arroyo toad, Coast Range newt, and mountain yellow-legged frog surveys must be conducted by an authorized Contractor-supplied biologist immediately prior to the start of ground-disturbing activities, including the installation of arroyo toad, Coast Range newt, and mountain yellow-legged frog exclusion fencing, within the project impact area. If an arroyo toad, Coast Range newt, or mountain yellow-legged frog individual is located, the Resident Engineer and a Caltrans biologist will be contacted, and avoidance and minimization measures must be required.

BIO-4 Work Avoidance: Avoid blasting during the arroyo toad breeding season (March 1-June 30) within the Morrill Canyon Bridge project area.

BIO-5 If during construction activities arroyo toad, Coast Range newt, and mountain yellow-legged frog is discovered within the project site, the Contractor-supplied biologist must have the authority to halt all

DRAFT

construction activities and direct movements of equipment and personnel to avoid injury to mortality to arroyo toad, Coast Range newt, and mountain yellow-legged frog. Arroyo toad, Coast Range newt, and mountain yellow-legged frog cannot be handled or harassed and must leave the job site under their own accord.

BIO-6 Worker Environmental Awareness Program (WEAP): A qualified contractor-supplied biologist must present a biological resource information program/WEAP prior to ground-disturbing activities to all personnel that must be present within the project limits for longer than 30 minutes at any given time.

BIO-7 Biological Monitor: The qualified contractor-supplied biologist must monitor project-related activities to ensure that measures (including the construction guidelines in WRCMSHCP Volume 1 Section 7.5.3 and the Standard Best Management Practices in WRCMSHCP Appendix C) are being implemented and documented.

BIO-8 ESA Fencing: To prevent entry by arroyo toad, Coast Range newt, and mountain yellow-legged frog into the work site, temporary exclusion fencing must be installed outlining the perimeter of any construction staging, storage, or batch plant areas.

BIO-9 ESA Fence Monitoring: Fence and enclosure (onsite cleared areas) inspections must occur daily throughout the duration of the project prior to commencing construction activities and after construction activities are completed. If during construction, the fence fails, work must stop until it is repaired and the Contractor-supplied biologist inspects (and clears) the site.

BIO-10 ESA Fence Removal: All ESA fencing will be removed as a last order of work. During removal, a biological monitor will be present.

BIO-11 Animal Entrapment: To prevent inadvertent entrapment of arroyo toad, Coast Range newt, and mountain yellow-legged frog during project activities, all excavated steep-walled holes or trenches more than one foot must be covered at the close of each working day by plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Trapped animals must be released by the Contractor-supplied biologist.

BIO-12 Handling: The qualified biologist must avoid use of insecticides, sunscreens, or any other lotions, creams or products on their skin, clothing, footwear, or field equipment immediately prior to and during handling of arroyo toad, Coast Range newt, and mountain yellow-legged frog.

BIO-13 Preconstruction Nesting Bird Survey: If project-related activities cannot avoid the nesting season, generally regarded as February 1 through September 30, then pre-construction nesting bird surveys must be conducted 3 days prior to construction by a Contractor-supplied biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer must be established.

BIO-14 Rare insect host plant pre-construction clearance survey, flagging, and fencing: No more than one week prior to project-related activities, a qualified biologist must perform a pre-construction survey for rare insect host plants. Should any rare insect host plants be found, the Resident Engineer and Caltrans Biologist must be contacted, and host plants must be flagged by the biologist for visual identification to construction personnel for work avoidance. Should multiple plants in a single location be found, the groupings must be fenced with environmentally sensitive area temporary fencing.

DRAFT

BIO-15 Flagging and Fencing: Within one week prior to construction a pre-construction survey must be conducted for special status plant species and must be flagged by the Contractor-suppled biologist for visual identification to construction personnel for work avoidance. Portions of the BSA that feature multiple plants in a single location must be fenced with environmentally sensitive area temporary fencing.

BIO-16 Rare Plant Translocation: If a special status plant species are found within the work area and cannot be fenced but can survive transplantation, the Contractor-supplied biologist must contact the Caltrans Biologist to determine the time and suitable translocation area for the plant species to be moved. Additional requirements and actions must be determined at the time in which such situation occurs.

BIO-17 Tree Removal: All mature trees to be removed as part of the project must be more closely evaluated by a qualified bat biologist for their potential to support roosting bats. Trees that are identified as suitable bat roost sites must be removed using a two-step process that occurs over a 2-day period. On Day 1, branches and limbs that do not contain crevices or cavities must be removed using hand tools or chainsaws. On Day 2, the remainder of the tree may be removed. Trimming or removal of any mature trees (including untrimmed palm trees) and snags during the maternity season (April 1-August 31) must be avoided to prevent "take" of nonvolant (flightless) young. Tree removal should be performed between September 1 and October 31 to the greatest extent feasible to avoid direct impacts to bats roosting in foliage, crevices, and cavities of trees. This time period is after young are volant (flying), but before expected onset of torpor (winter inactivity). This work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. If removal of mature trees (including trimming of palm fronds or removal of palm trees) during the bat maternity season is necessary for project construction, all mature trees to be removed that have also been identified as containing suitable bat roosting habitat should be surveyed at night prior to removal. Any trees confirmed during those surveys as housing bat maternity colonies must be avoided until the end of maternity season.

CR-1 If buried cultural resources are encountered during project activities, it is Caltrans' policy that all work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find.

CR-2 In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendant (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

_____ _____

David Bricker Date
Deputy District Director
District 8 Division of Environmental Planning
California Department of Transportation
CEQA Lead Agency

DRAFT

This page intentionally left blank.

DRAFT

Table of Contents

Chapter 1 **Proposed Project 1-1**

1.1 NEPA Assignment 1-1
1.2 Introduction 1-1
1.2.1 Existing Facilities.....1-1
1.3 Purpose and Need 1-11
1.3.1 Purpose.....1-11
1.3.2 Need 1-11
1.3.3 Roadway Deficiencies 1-12
1.3.4 Social Demands or Economic Development.....1-13
1.3.5 Air Quality Improvements 1-13
1.3.6 Independent Utility and Logical Termini.....1-13
1.4 Project Description 1-14
1.5 Alternatives 1-14
1.5.1 Project Alternatives 1-14
1.5.2 Common Design Features of the Build Alternatives 1-21
1.5.3 Unique Features of the Build Alternatives.....1-21
1.6 Project Features.....1-22
1.7 Transportation System Management (TSM) and Transportation Demand Management (TDM) Alternatives 1-22
1.7.1 No-Build Alternative 1-22
1.8 Comparison of Alternatives 1-23
1.9 Criteria for Selection of the Preferred Alternative 1-23
1.10 Alternatives Considered But Eliminated from Further Discussion 1-23
1.10.1 Strawberry Creek Bridge Alternative S2 1-23
1.10.2 Strawberry Creek Bridge Alternative S4 1-23
1.10.3 Strawberry Creek Bridge Alternative S5 1-24
1.10.4 Morrill Canyon Bridge Alternative M2 1-24
1.10.5 Morrill Canyon Bridge Alternative M3 1-24
1.11 Permits and Approvals Needed.....1-24

Chapter 2. **Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures.....2-1**

2.1 Human Environment 2-2
2.1.1 Parks and Recreational Facilities 2-2
2.1.2 Timberland 2-5
2.1.3 Utilities/Emergency Services 2-7
2.1.4 Traffic and Transportation/Pedestrian and Bicycle Facilities.....2-8
2.1.5 Visual/Aesthetics.....2-11
2.1.6 Cultural Resources.....2-12

2.2 Physical Environment....2-19
2.2.1 Water Quality and Storm Water Runoff....2-19
2.2.2 Geology/Soils/Seismicity/Topography....2-25
2.2.3 Hazardous Waste/Materials....2-29
2.3 Biological Environment....2-35
2.3.1 Natural Communities....2-35
2.3.2 Wetlands and Other Waters....2-40
2.3.3 Plant Species....2-46
2.3.4 Animal Species....2-52
2.3.5 Threatened and Endangered Species....2-65
2.3.6 Invasive Species....2-70
2.4 Cumulative Impacts....2-73
2.4.1 Regulatory Setting....2-73
2.4.2 Methodology....2-73
2.4.3 Resources Evaluated for Potential Cumulative Impacts....2-74
2.4.4 Avoidance, Minimization, and Mitigaiton Measaures....2-77

Chapter 3 **CEQA Evaluation....3-1**
3.1 Determining Significance under CEQA....3-1
3.2 CEQA Environmental Checklist....3-1
I. Aesthetics....3-2
II. Agriculture and Forest Resources....3-3
III. Air Quality....3-4
IV. Biological Resources....3-5
V. Cultural Resources....3-9
VI. Energy....3-12
VII. Geology and Soils....3-12
VIII. Greenhouse Gas Emissions....3-15
IX. Hazards and Hazardous Materials....3-15
X. Hydrology and Water Quality....3-17
XI. Land Use and Planning....3-18
XII. Mineral Resources....3-18
XIII. Noise....3-19
XIV. Population and Housing....3-20
XV. Public Services....3-20
XVI. Recreation....3-21
XVII. Transportation....3-22
XVIII. Tribal Cultural Resources....3-23
XIX. Utilities and Service Systems....3-24
XX. Wildfire....3-25
XXI. Mandatory Findings of Significance....3-26
3.3 Climate Change....3-28
Regulatory Setting....3-28
Environmental Setting....3-31

Project Analysis 3-35
Greenhouse Gas Reduction Strategies 3-36
Adaptation.....3-39

Chapter 4 **Comments and Coordination 4-1**
4.1 Consultation and Coordination 4-1
4.1.1 U.S. Fish and Wildlife Service 4-1
4.1.2 Native American Coordination.....4-1
4.1.3 Local Historical Society/Historic Preservation Group.....4-2
4.1.4 United States Forest Service.....4-3
4.1.5 Department of Parks and Recreation, Office of Historic Preservation 4-3
4.2 Agency Coordination Documentation 4-3

Chapter 5 **List of Preparers 5-1**

Chapter 6 **Distribution List 6-1**
6.1 Agencies 6-1
6.2 Interested Groups, Organizations, and Individuals 6-2

Appendix A Section 4(f)
Appendix B Title VI Policy Statement
Appendix C Environmental Commitments Record
Appendix D Acronyms and Abbreviations
Appendix E References
Appendix F List of Technical Studies

Tables

Table		Page
1-1	Collision Data	1-7
1-2	Type of Collisions (in Percent)	1-7
1-3	Primary Collision Factors (in Percent)	1-8
1-4	Design Exceptions Common to All Build Alternatives	1-17
1-5	Required Permits, Reviews, and Approvals	1-20
2-1	Public Parks, Trails and Other Recreational Facilities within 0.5 Mile of the Project Limits	2-3
2-2	Existing, Future Year ADT Volumes (Morrill Canyon Bridge PM 2.9/3.2)	2-9
2-3	Existing, Future Year ADT Volums (Strawberry Creek Bridge PM 53.4/53.7)	2-9
2.3-1	Morrill Canyon Bridge Temporary Disturbance	2-35
2.3-2	Strawberry Creek Bridge Temporary Disturbance	2-36
2.3-3	Morrill Canyon Bridge Permanent Disturbance	2-38
2.3-4	Strawberry Creek Bridge Permanent Disturbance	2-39
2.3-5	Morrill Canyon Bridge Alternative M1 Impacts on Jurisdictional Areas	2-44
2.3-6	Strawberry Creek Bridge Alternative S1 Impacts on Jurisdictional Areas	2-44
2.3-7	Strawberry Creek Bridge Alternative S3 Impacts on Jurisdictional Areas	2-44
2.3-8	Plant Species	2-47
2.3-9	Animal Species – Amphibians	2-55
2.3-10	Animal Species – Birds	2-55
2.3-11	Animal Species – Crustaceans	2-56
2.3-12	Animal Species – Fish	2-57
2.3-13	Animal Species – Insects	2-57
2.3-14	Animal Species – Mammals	2-58
2.3-15	Animal Species – Reptiles	2-58
3-1	Regional Greenhouse Gas Reduction Policies	3-35

Figures

Figure		Page
1-1	Regional Vicinity	1-3
1-2	Project Location Map	1-5
1-2A	Morrill Canyon Bridge, Project Location Map	1-7
1-2B	Stawberry Creek Bridge, Project Location Map	1-9
1-3A	Morrill Canyon Bridge Alternative M1	1-15
1-3B	Strawberry Creek Bridge Alternative S1	1-17
1-3C	Strawberry Creek Bridge Alternative S3	1-19
3-1	U.S. 2016 Greenhouse Gas Emissions	3-33
3-2	California 2017 Greenhouse Gas Emissions	3-34
3-3	Change in California GDP, Population, and GHG Emissions Since 2000	3-34
3-4	California Climate Strategy	3-38

This page intentionally left blank.

Chapter 1 Proposed Project

1.1 NEPA Assignment

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

1.2 Introduction

The Department, as assigned by FHWA, is the lead agency under NEPA. It is also the lead agency under the California Environmental Quality Act (CEQA). The Department proposes to replace Morrill Canyon Bridge (Bridge No. 56-0169, post mile [PM] 3.08) and Strawberry Creek Bridge (Bridge No. 56-0180, PM 53.45) on State Route 74 (SR-74) in Riverside County. The existing bridges are rubble masonry arch culverts, which have nonstandard bridge rails that do not meet current federal crash standards. The existing bridges also have nonstandard lane and shoulder widths. Figures 1-1 and 1-2 are project location and vicinity maps.

1.2.1 Existing Facilities

1.2.1.1 State Route 74

SR-74 is a two-lane undivided conventional highway with narrow right shoulders and steep embankments with a significant portion of it traversing mountainous terrain. It begins at Interstate 5 (I-5) near San Juan Capistrano in the County of Orange, and proceeds easterly to Interstate 10 (I-10) north of Palm Desert in Riverside County. SR-74 is not an Extralegal Load Network (ELLN) route. It is a Federal-Aid primary route and is included in the Freeway and Expressway System.

Morrill Canyon Bridge (Bridge No. 56-0169)

Morrill Canyon Bridge is located near Lake Elsinore at PM 3.08 along SR-74 and consists of two lanes with 10.5-foot lane widths, 1.5-foot paved left and right shoulder widths, with no median. The Morrill Canyon Bridge is a rubble masonry arch culvert structure built in 1931. Currently, the bridge rails do not meet current federal crash standards, and the existing shoulder and lane widths do not comply with current design standards. There are also longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arch.

According to the June 2019 Preliminary Hydraulic Reports (PHR), the water surface elevation at Morrill Canyon Bridge for both 50-year and 100-year storm events exceed the bridge soffit for the existing condition. The existing bridge is not capable of accommodating storm events 50 years or higher and constructing a new bridge upstream or downstream of the existing bridge without removing the existing Morrill Canyon Bridge structure would impede the flow of water within Morrill Canyon. This impedance would flood the area upstream of the Morrill Canyon Bridge and overflow onto the roadway.

Strawberry Creek Bridge (Bridge No. 56-0180)

The Strawberry Creek Bridge is located near Hemet at PM 53.45 along SR-74 and consists of two lanes with 10.5-foot lane widths, 1.3-foot paved left and right shoulder widths, with no median. The Strawberry Creek Bridge is a rubble masonry arch culvert structure built in 1929. Currently, the bridge rails do not meet current federal crash standards, and the existing shoulder and lane widths do not comply with current design standards. There are also moderate transverse and map asphalt concrete (AC) cracks throughout the deck and minor to moderate longitudinal and transverse soffit cracks with efflorescence.

According to the June 2019 PHR, the existing Strawberry Creek Bridge structure would not accommodate 100-year storm events and would result in overtopping of the roadway. Based on the PHR, the existing bridge is not capable of accommodating storm events 100 years or higher, and constructing a new bridge upstream or downstream of the existing bridge would impede the flow of water within Strawberry Creek. This impedance would flood the area upstream of the Strawberry Creek Bridge and waterflow will overtop the roadway and the bridge.

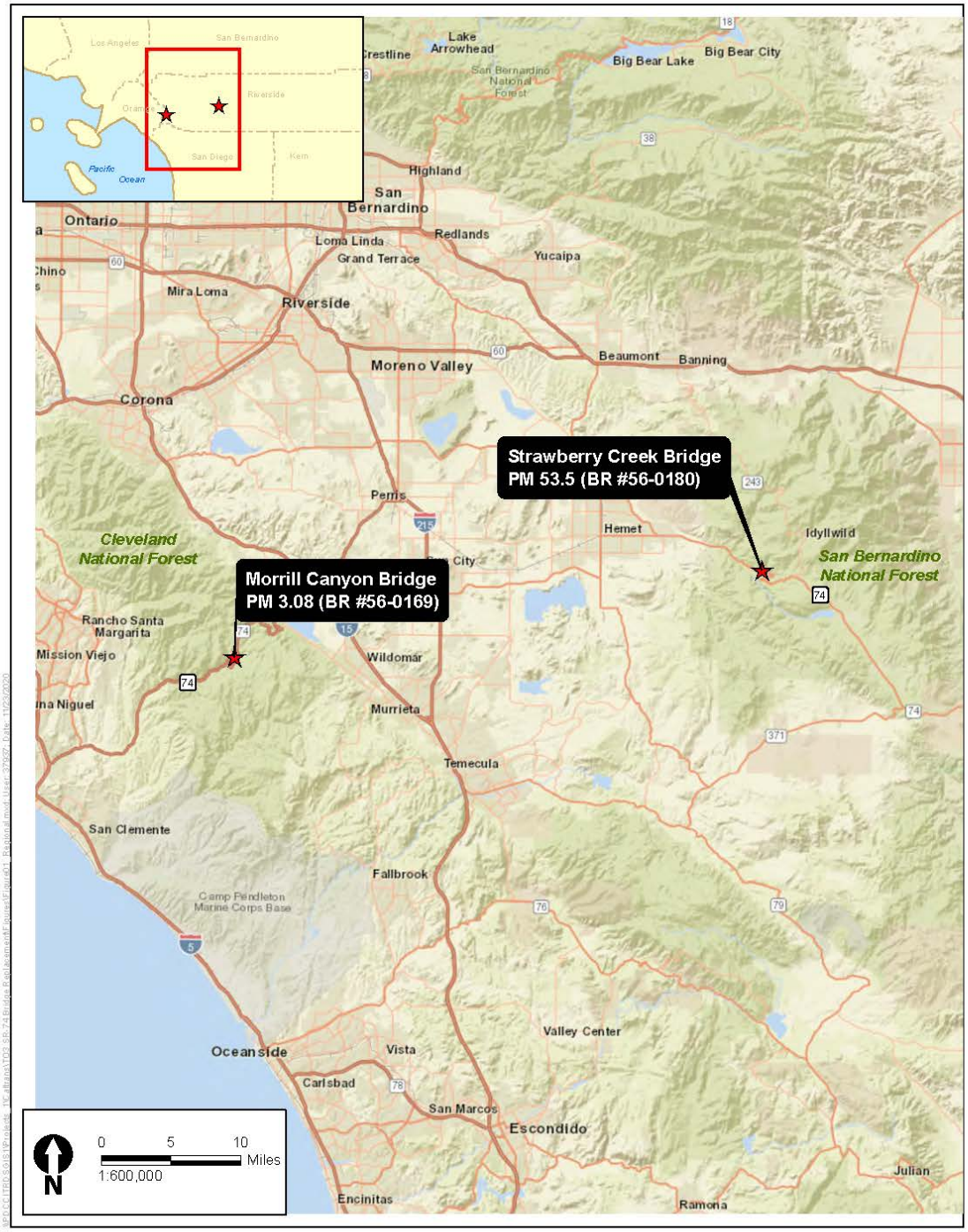


Figure 1-1
Regional Vicinity Map
SR-74 Bridge Replacement Project

This page intentionally left blank.

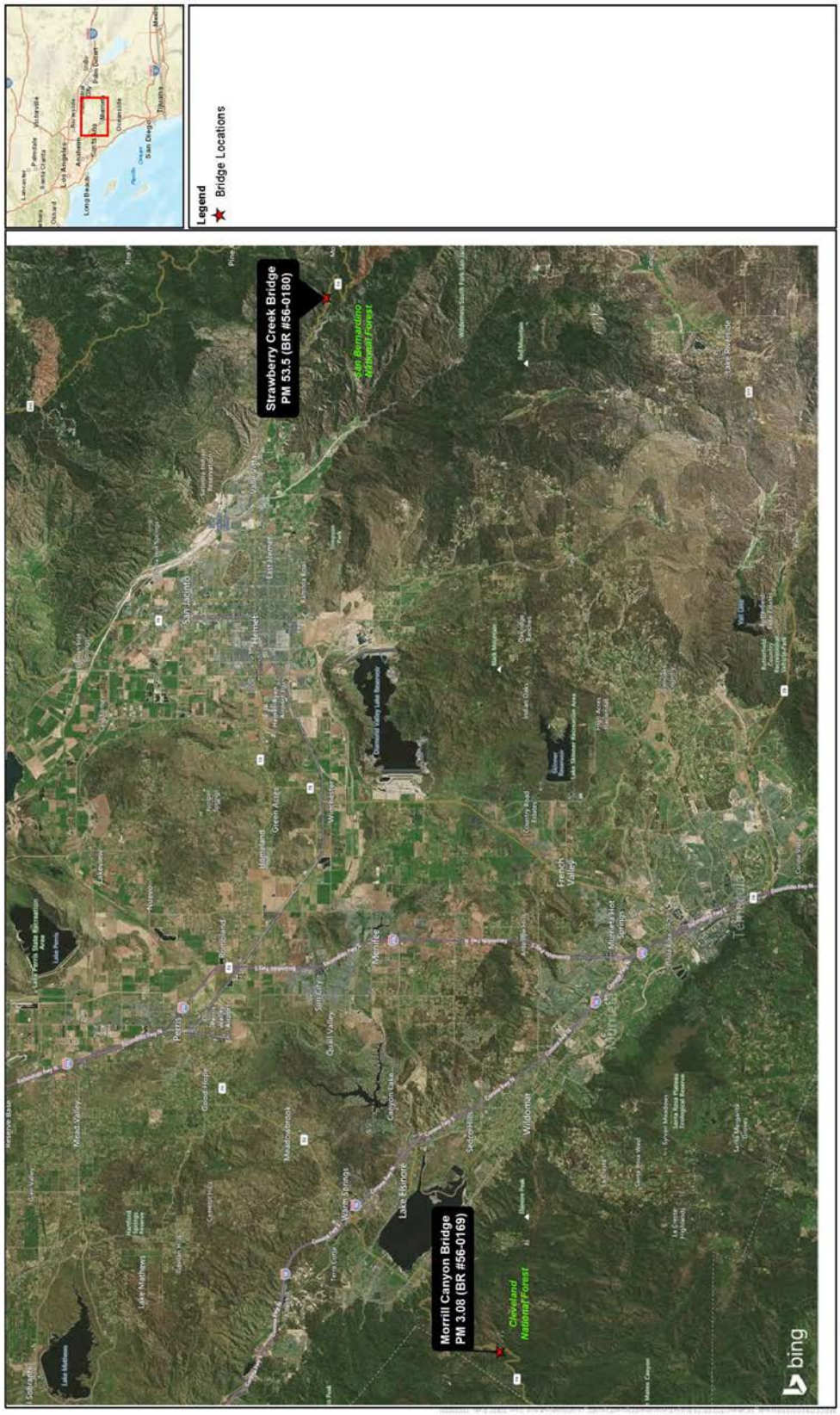


Figure 1-2
Project Location Map
SR-74 Bridge Replacement Project

This page intentionally left blank.

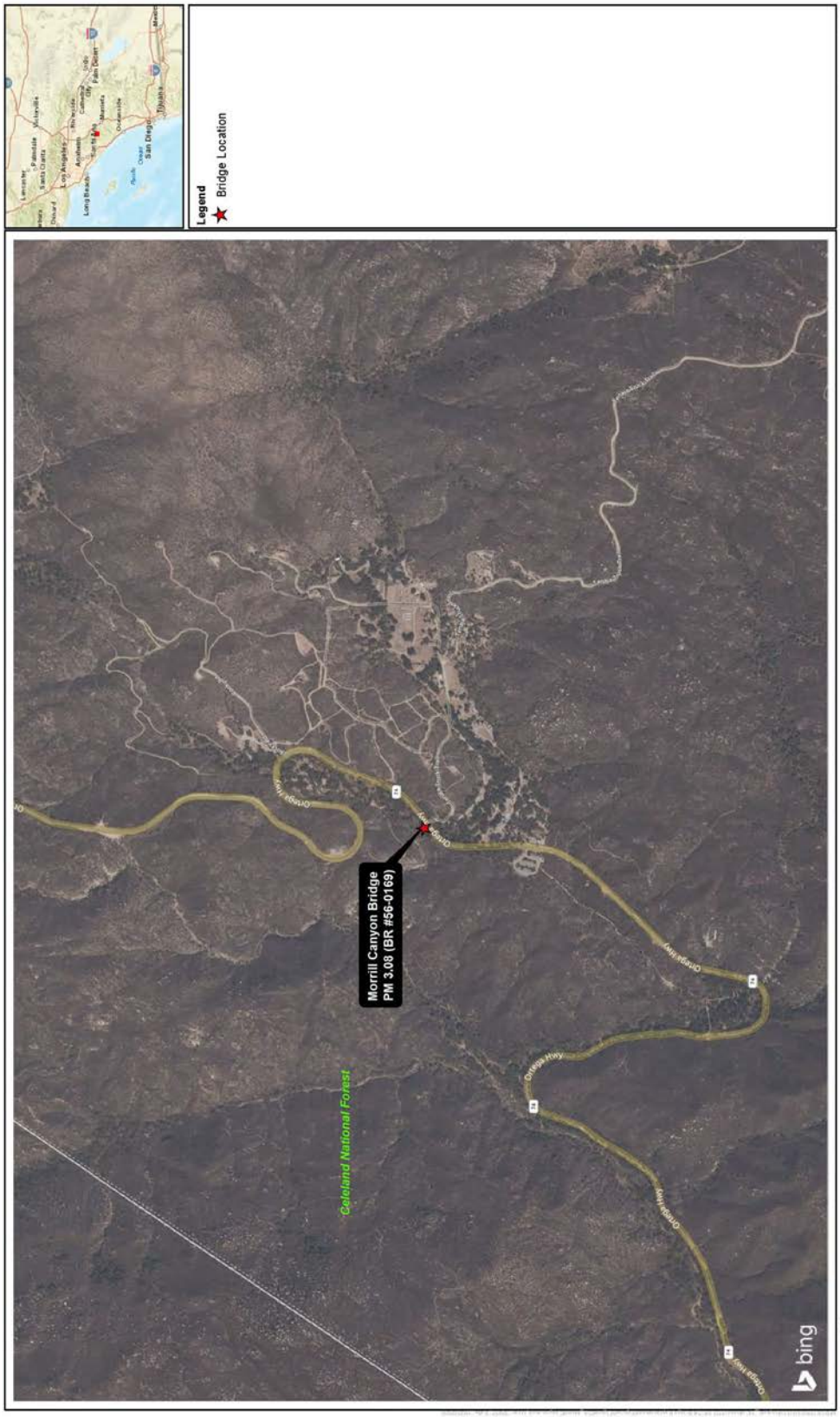


Figure 1-2A
Morrill Canyon Bridge, Project Location Map
SR-74 Bridge Replacement Project

This page intentionally left blank.

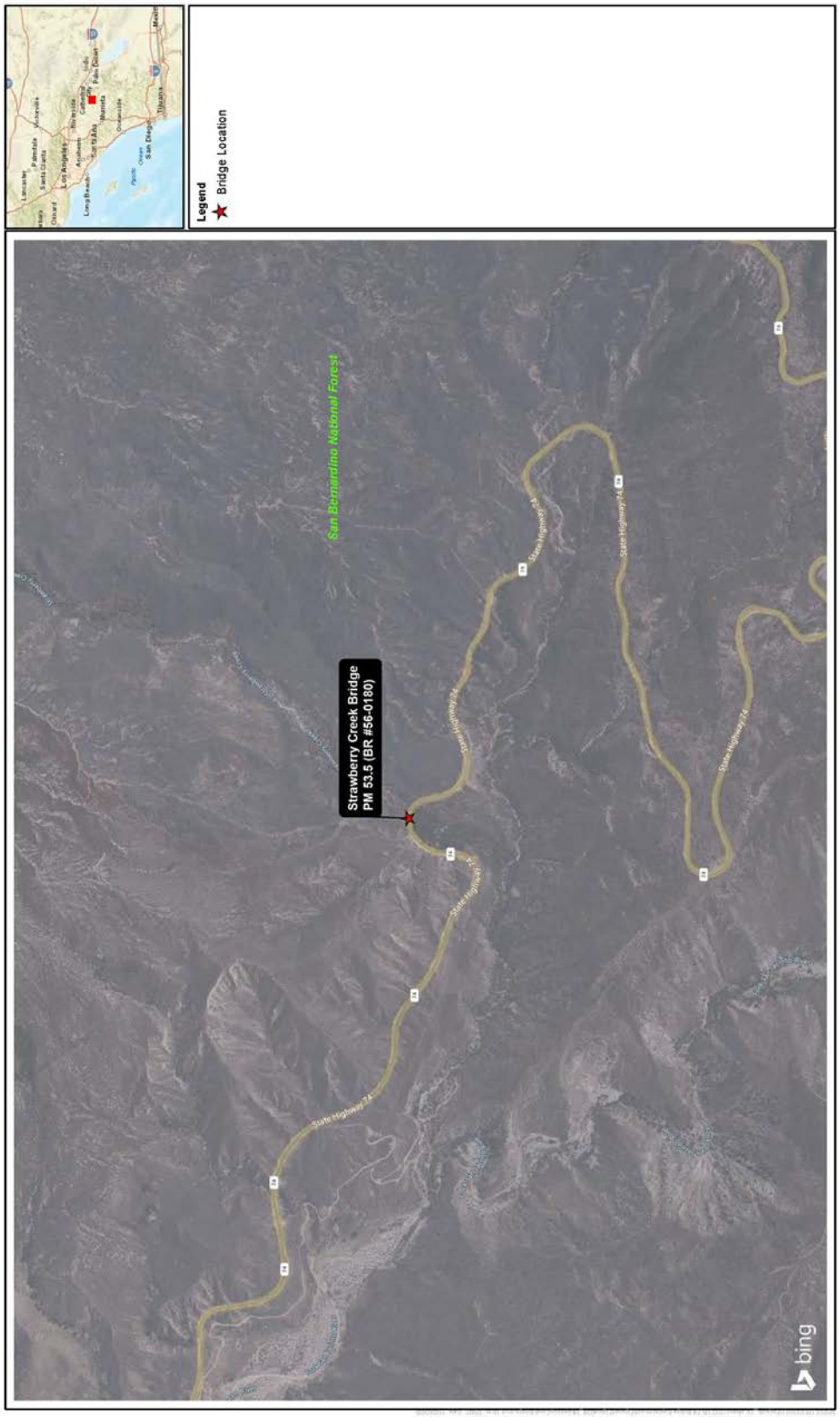


Figure 1-2B
Strawberry Creek Bridge, Project Location Area
SR-74 Bridge Replacement Project

This page intentionally left blank.

1.3 Purpose and Need

1.3.1 Purpose

The purpose of this project is to ensure the safety and mobility for the traveling public by replacing the aging structures and upgrading the bridge rails at Morrill Canyon Bridge and Strawberry Creek Bridge, in order to provide continued connectivity along SR-74.

1.3.2 Need

The bridges were initially identified for bridge rail upgrade or replacement in 1984. Due to the enormous number of rail upgrade/replacement needs statewide, the structures have been prioritized based on traffic volume and geometrics. The Structure Replacement and Improvement Needs (STRAIN) Report, dated October 2014, also identifies several longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arches. In addition, both structures have nonstandard lane and shoulder widths. Due to the significant deterioration and nonstandard features, there is a need to replace these structures to meet current design, crash, and safety standards.

1.3.2.1 Collision Analysis

The collision analysis related to this project was performed by Caltrans District 8 Traffic Operations Surveillance Region B and was summarized in a memo dated July 23, 2020. Caltrans Traffic Accident Surveillance & Analysis System (TASAS) indicates the following summary during the most current three-year period from April 1, 2017, to March 31, 2020, for the project bridge locations shown below.

Table 1-1. Collision Data

	Actual Accident Rates			State Average Rates		
Bridge/Location	**Fatal**	**Fatal + Injury**	**Total**	**Fatal**	**Fatal + Injury**	**Total**
Morrill Canyon Bridge PM 2.9/3.2	0	0.853	1.451	0.014	0.215	0.475
Strawberry Creek Bridge PM 53.2/53.7	0	1.07	4.28	0.044	0.84	1.69

Source: Draft Project Report, Caltrans 2020

Table 1-2. Type of Collisions (in Percent)

Bridge/Location	Head-On	Sideswipe	Rear-End	Broadside	Hit Object	Overturn	Auto-Pedestrian	Other	Not Stated
Morrill Canyon Bridge PM 2.9/3.2	5.9	5.9	23.5	5.9	23.5	29.4	0	5.9	0
Strawberry Creek Bridge PM 53.2/53.7	0	25	12.5	0	62.5	0	0	0	0

Source: Draft Project Report, Caltrans 2020

Table 1-3. Primary Collision Factors (in Percent)

Bridge	HBD	FTC	FTY	IT	ESS	OV	ID	OTD	UNK	FA	NS
Morrill Canyon Bridge PM 2.9/3.2	0	0	11.8	35.3	47.1	5.9	0	0	0	0	0
Strawberry Creek Bridge PM 53.2/53.7	0	0	0	62.5	12.5	25	0	0	0	0	0

Source: Draft Project Report, Caltrans 2020.
Notes:
HBD = Influence of alcohol FTC = Following too close FTY = Failure to yield
ID = Improper driving IT = Improper turn ESS = Speeding
OV = Other violations NS = Not stated OTD = Other than driver
UNK = Unknown FA = Fell asleep

According to the Caltrans TASAS, Traffic Selective Accident Retrieval (TSAR), and Selective Accident Rate Calculation, the three-year traffic accident history at Morrill Canyon Bridge resulted in actual fatal plus injury and total rates higher than those of the statewide average; the actual fatal rate is lower than the statewide average. Similarly, at Strawberry Creek Bridge, the actual fatal plus injury and total accident rates are higher than the statewide average, while the actual fatal rate is lower than the statewide average. The project alternatives at both bridges propose a standard 12-foot lane width with a minimum shoulder width of 4 feet at Morrill Canyon Bridge, which may have a positive effect on the accident rate. In addition, the new bridge structures and rail will offer better protection for errant vehicles by providing a stronger and safer bridge rail configuration.

1.3.3 Roadway Deficiencies

The condition of the structures is described in the Bridge Inspection Reports, and is based on routine inspections of each bridge that were performed in August 2013. The findings were as follows:

- Morrill Canyon Bridge (Bridge No. 56-0169)
  - Bridge rails do not meet current federal crash standards.
  - There are longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arch.
  - The existing shoulder and lane width do not comply with current design standards.
  - This structure was built in 1931 and has exceeded its useful design life.
  - Cross sectional area of the bridge is not capable of accommodating 50-and 100-year storm events.
- Strawberry Creek Bridge (Bridge No. 56-0180)
  - Bridge rails do not meet current federal crash standards.
  - There are moderate transverse and map AC cracks throughout the deck.
  - There are minor to moderate longitudinal and transverse soffit cracks (less than 0.05-inch wide and 5-foot spacing) with efflorescence.
  - The existing shoulder and lane width do not comply with current design standards.

- This structure was built in 1929 and has exceeded its useful design life.
- Cross sectional area of the bridge is not capable of accommodating 100-year storm events.

Due to the significant deterioration and non-standard design features to correct these deficiencies, there is a need to replace these structures to meet current design, crash, and safety standards.

1.3.4 Social Demands or Economic Development

SR-74 is a two-lane undivided conventional highway with narrow right shoulders and steep embankments, portions of which traverse mountainous terrain. The proposed project improvements are consistent with statewide, regional, and local mobility goals, and are being coordinated with impacted governmental, regulatory, and local agencies in the area to ensure consistency with specific local goals and objectives. Furthermore, the project improvements are consistent with regional planning goals. The configuration of the existing roadway facility would not be affected or impacted by the proposed project, and there are no major projects proposed in the project vicinity.

1.3.5 Air Quality Improvements

SR-74 is not a bicycle route at either project bridge location, and there are no pedestrian paths available for the public. There are no transportation control measures such as high occupancy vehicle (HOV) lanes, ramp metering, or park and ride facilities in the area. The project would not be needed due to an increase in congestion, or be needed as a result of extensive existing or approved planned development in the area that would generate additional trips, or needed due to an inadequate regional access to the area.

1.3.6 Independent Utility and Logical Termini

FHWA regulations (23 Code of Federal Regulations [CFR] 771.111 [f]) require that the action evaluated:

- Connect logical termini and be of sufficient length to address environmental matters on a broad scope.
- Have independent utility or independent significance (be usable and require a reasonable expenditure even if no additional transportation improvements in the area are made).
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Logical termini should encompass an entire project. Cutting a larger project into smaller projects may be considered “improper segmentation.” A project must have independent utility; that is, a project must be able to function on its own, without further improvements.

The project is of sufficient length, with project termini logically placed, to allow environmental issues to be addressed on a broad scope. The proposed project would have independent utility and would not restrict consideration of alternatives for other reasonably foreseeable

transportation improvements and without any additional transportation improvements being made in the area. As such, the proposed project is considered a project with independent utility.

1.4 Project Description

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

- Morrill Canyon Bridge Alternative M1
- Strawberry Creek Bridge Alternative S1
- Strawberry Creek Bridge Alternative S3
- No-Build Alternative

The project is located in Riverside County along SR-74 at Morrill Canyon Bridge (Bridge No. 56-0169, PM 3.08) and Strawberry Creek Bridge (Bridge No. 56-0180, PM 53.5). SR-74 is a two-lane undivided conventional highway with narrow right shoulders and steep embankments within mountainous terrain. At the Morrill Canyon Bridge, the roadway is 10.5 feet wide in each direction with 1.5-foot shoulders. At the Strawberry Creek Bridge, the roadway is 10.5 feet wide in each direction with 1.3-foot shoulders. The two bridge locations are approximately fifty miles apart. The purpose of the project is to ensure the safety and mobility of the traveling public and to provide continued connectivity along SR-74. Both bridge structures have nonstandard lane and shoulder widths. Due to the significant deterioration and nonstandard features, there is a need to replace these structures to meet current design, crash, and safety standards. In addition, the existing Morrill Canyon Bridge structure is not capable of accommodating storm events 50 years or higher and the existing Strawberry Creek Bridge structure is not capable of accommodating storm events 100 years or higher.

1.5 Alternatives

1.5.1 Project Alternatives

The project proposes to replace Morrill Canyon Bridge and Strawberry Creek Bridge in Riverside County. The project has a no-build alternative, Morrill Canyon Bridge has one alternative, and Strawberry Creek Bridge has two alternatives. In order to replace each structure, the project would construct a temporary bridge at each location or use part of the existing bridge for reverse traffic control, detour traffic from the existing bridge to the temporary bridge if a temporary bridge is required, remove the existing structure, and construct the proposed bridge.

Figures 1-3A through 1-3C provide an overview of each of the alternatives.

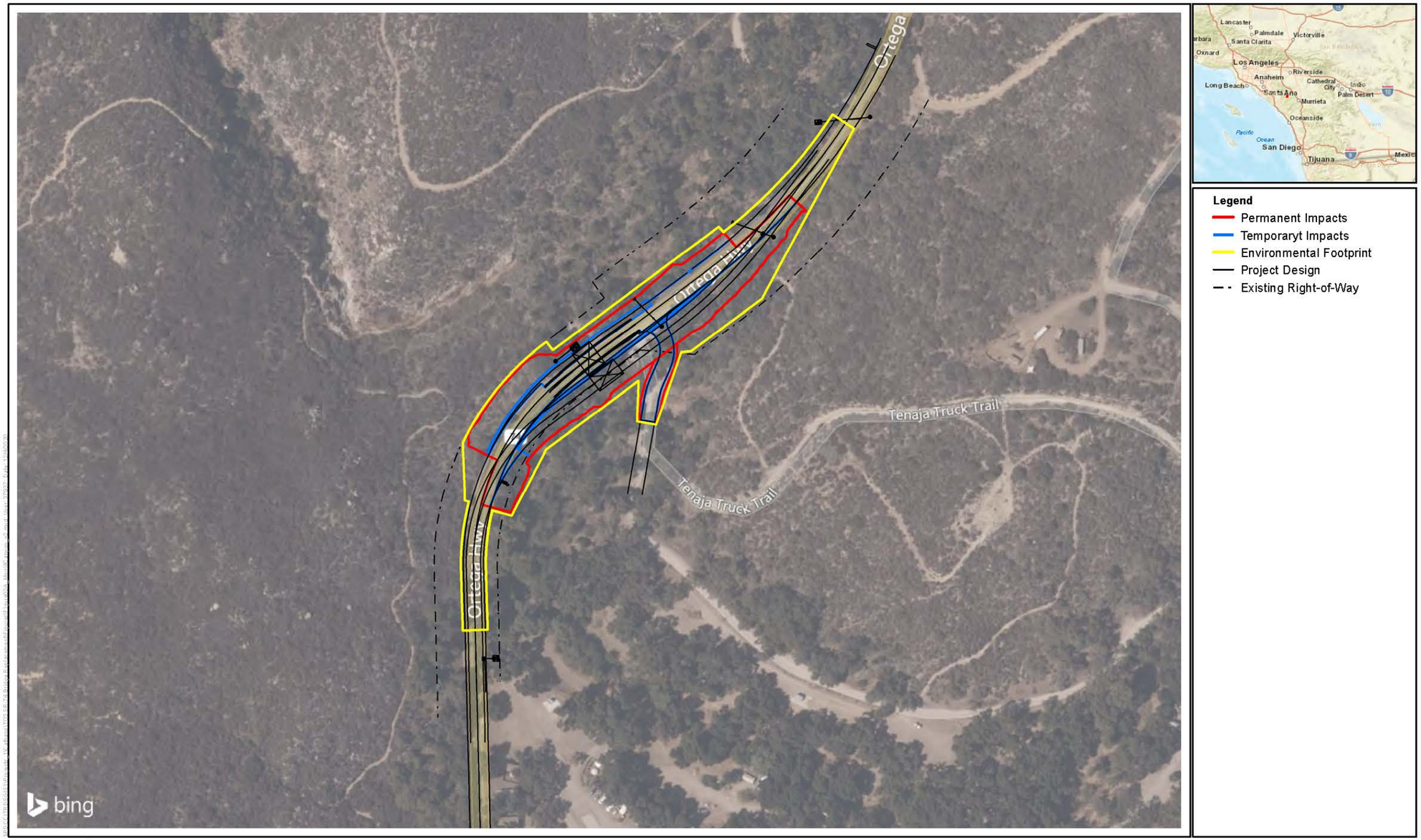


Figure 1-3A
Morrill Canyon Bridge
SR-74 Bridge Replacement Project

This page intentionally left blank.

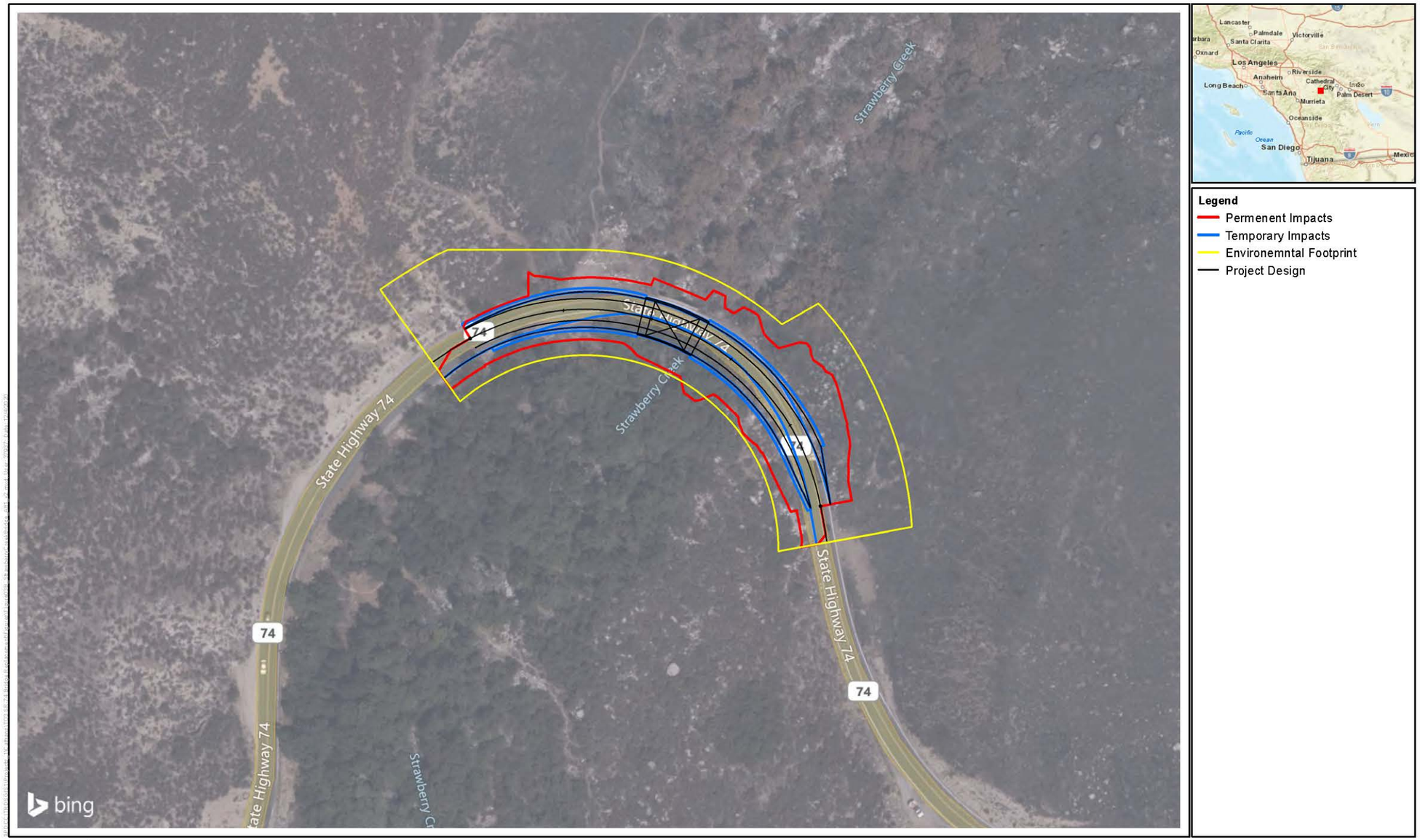


Figure 1-3B
Strawberry Creek Bridge, Alternative S1
SR-74 Bridge Replacement Project

This page intentionally left blank.

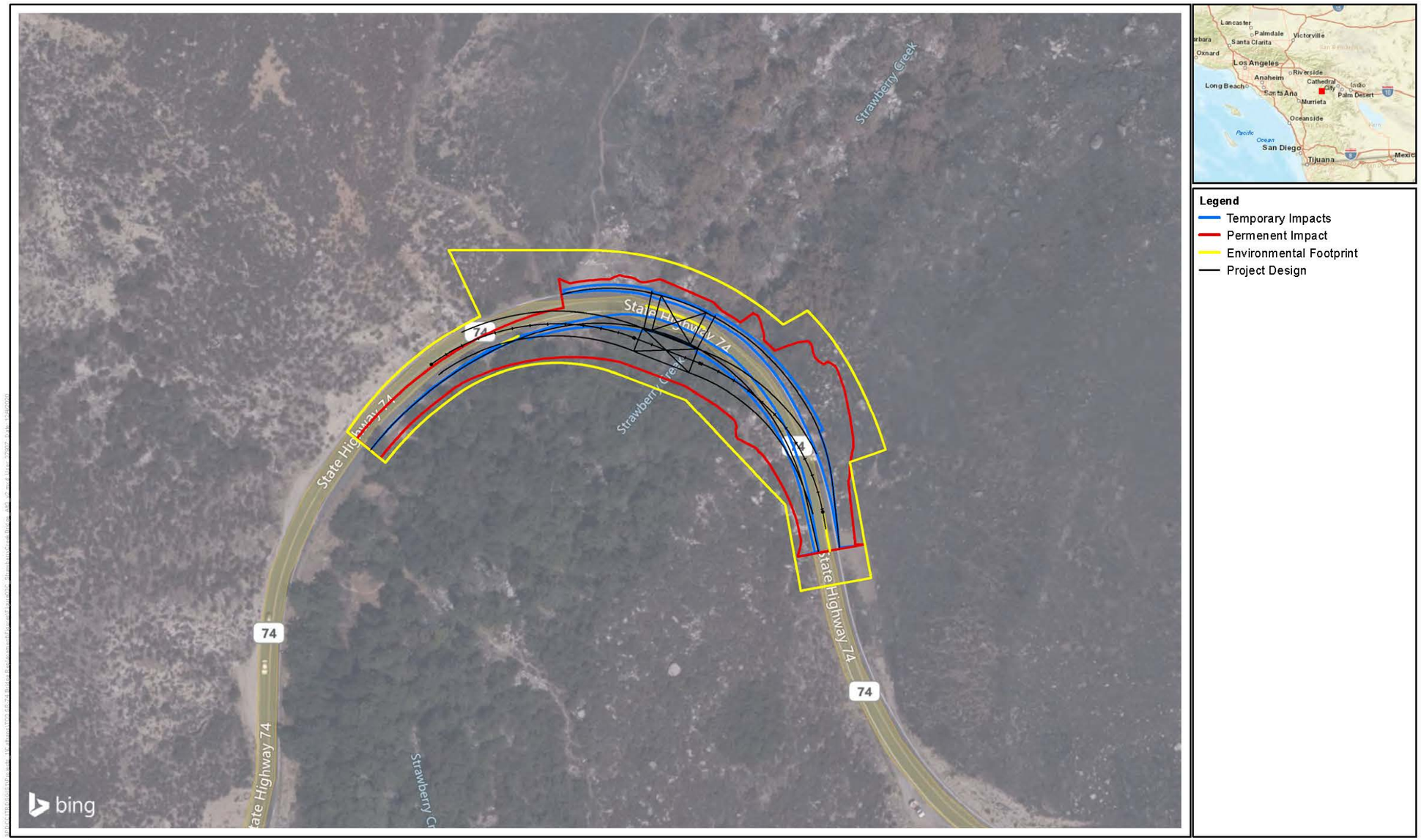


Figure 1-3C
Strawberry Creek, Bridge Alternative S3
SR-74 Bridge Replacement Project

This page intentionally left blank.

1.5.2 Common Design Features of the Build Alternatives

The build alternatives have the following design elements in common:

- All build alternatives involve widening the roadway to 12-foot lanes in each direction of travel, regrading the impacted areas with imported materials, and incorporating a new Midwest Guardrail System (MGS).

1.5.2.1 Design Exceptions

Table 1-4 summarizes the nonstandard design features that would be constructed under the build alternatives.

Table 1-4. Design Exceptions Common to All Build Alternatives

Design Standard	Build Alternative
201.1 Stopping Sight Distance	Morrill Canyon Bridge Alternatives M1, Strawberry Creek Bridge Alternatives S1 and S3
202.2 (1) – Standards for Superelevation	Strawberry Creek Bridge Alternatives S1 and S3
203.2 Standards for Curvature – Minimum Radius	Strawberry Creek Bridge Alternatives S1 and S3

Source: Draft Project Report, Caltrans 2020.

1.5.3 Unique Features of the Build Alternatives

1.5.3.1 Morrill Canyon Bridge

- Alternative M1 (12-foot lane in each direction, 2-foot median, and 8-foot shoulders)

The Morrill Canyon Bridge alternative involves reconstructing the approach of the roadway to the bridge ends, adding a new bridge rail that will match the current aesthetics of the structures, reconstructing one overside drain system, adding a new MGS, adding a 12-inch rumble strip, and building a temporary two-lane bridge on the south side of the current bridge to provide a detour for vehicles and to avoid the Cleveland National Forest right of way. In addition, regrade the access driveway to Tenaja Truck Trail and proposed staging area at PM 2.9.

1.5.3.2 Strawberry Creek Bridge

- Alternative S1. The proposed alignment would be approximately 13 feet south of the existing yellow stripe (centerline). Reverse traffic control would be utilized for all stages of construction. As such, no temporary detour bridge would be required. This alternative would result in 12-foot lanes in each direction and standard 8-foot shoulders, reconstructing the roadway approach to the bridge's approach slabs, adding a new bridge rail that will match the current aesthetics of the structure, reconstructing two overside drain systems, and adding a new MGS. In addition, a potential staging area is proposed at PM 53.65.
- Alternative S3. The proposed alignment would be designed to closely match the existing yellow stripe to minimize permanent impacts. A two-way detour is proposed approximately 42.5 feet south of the existing yellow stripe to maintain traffic flow during construction. This alternative would result in a larger temporary environmental impact footprint than Strawberry Creek Bridge Alternative S1. This alternative involves 12-foot lanes in each

direction and standard 8-foot shoulders; reconstructing the roadway approach to the bridge's approach slabs; adding new bridge rail that will match the current aesthetics of the structure; reconstructing one overside drain system; adding a new MGS; and constructing a two-way traffic detour bridge with a temporary pavement approach to accommodate 11-foot lanes, 1-foot shoulders, and temporary railing. In addition, a potential staging area is proposed at PM 53.65.

1.6 Project Features

This project contains a number of standardized project measures that are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2. Moreover, these measures represent Best Management Practices and measures included in the Standard Plans and Specifications or Standard Special Provisions to address air quality, biological resources, cultural resources, hazardous waste/materials, water quality, management of traffic during construction, noise, erosion control, and landscaping.

1.7 Transportation System Management (TSM) and Transportation Demand Management (TDM) Alternatives

Transportation System Management (TSM) strategies increase the efficiency of existing facilities; they are actions that increase the number of vehicle trips a facility can carry without increasing the number of through lanes. Examples of TSM strategies include ramp metering, auxiliary lanes, turning lanes, reversible lanes, and traffic signal coordination. TSM also encourages automobile, public and private transit, ridesharing programs, and bicycle and pedestrian improvements as elements of a unified urban transportation system. Modal alternatives integrate multiple forms of transportation modes, such as pedestrian, bicycle, automobile, rail, and mass transit.

Although no specific TSM features are included as part of the project, the overall project serves a transportation system management purpose by providing safer and more efficient operation of SR-74 within the limits. The project provides widened existing lanes and widened shoulders that will enhance the operational efficiency of SR-74; therefore, the project is considered consistent with TSM goals and will support the continued safe and efficient operation of SR-74 at each of the bridge locations.

1.7.1 No-Build Alternative

The No-Build Alternative would maintain the existing bridge structures with nonstandard bridge rails, lane width, and shoulder width. These structures have exceeded their useful design life and will deteriorate further under this alterative, resulting in operational deficiencies, which will necessitate future costly maintenance measures. With no capital improvements, there would be no capital costs associated with this alternative. However, there would be continued costs associated with maintenance, periodic rehabilitation, and any safety and operational improvements to the existing facility.

1.8 Comparison of Alternatives

Both the Morrill Canyon Bridge and the Strawberry Creek Bridge are rubble masonry arch structures with non-standard lane and shoulder width, and the existing bridge railings do not meet current design standards. All build alternatives would be constructed with standard lanes, shoulders, and railings. Morrill Canyon Bridge Alternative M1 would construct a two-way traffic detour bridge with a temporary pavement approach to accommodate a temporary 11-foot-wide lane, 1-foot-wide shoulder with temporary railing. Lanes in each direction would be open during construction. The Strawberry Creek Bridge Alternative S1 alignment would be approximately 13 feet south of the existing yellow stripe and would implement reverse traffic control during construction using temporary traffic signals.

1.9 Criteria for Selection of the Preferred Alternative

After the public circulation period, all comments received will be considered, and the Department will identify a preferred alternative and make the final determination of the project's effect on the environment. Under CEQA, if no unmitigable significant adverse impacts are identified, the Department will prepare a Negative Declaration (ND) or Mitigated ND. Similarly, if the Department determines the action does not result in significant impacts on the environment, the Department, as assigned by FHWA, will issue a Finding of No Significant Impact (FONSI) in accordance with NEPA.

1.10 Alternatives Considered But Eliminated from Further Discussion

1.10.1 Strawberry Creek Bridge Alternative S2

Under this alternative, the proposed alignment would be approximately 17 feet north of the existing yellow stripe. The proposed engineering features and traffic management strategy are the same as Strawberry Creek Bridge Alternative S1. However, this alternative would require extensive excavation to the existing steep cut slope on the northwest corner of the bridge, resulting in a larger temporary environmental impact footprint than Strawberry Creek Bridge Alternative S1. Realigning the roadway closer to the cut slope would also potentially result in rockfall issues. In addition, this alignment would cross two existing streams on the upstream of Strawberry Creek and would need a longer bridge span to avoid permanent impacts on the stream, thus requiring a larger mitigation cost. As such, this alternative was eliminated from consideration.

1.10.2 Strawberry Creek Bridge Alternative S4

This alternative involved retrofitting the existing bridge to preserve in place and culvert extensions. The existing bridge would be extended 29 feet 9 inches to the south of the existing structure to accommodate two 12-foot lanes and 5-foot shoulders. The reinforced, corrugated steel lining of the existing structure would be further reduced and would not have capacity to accommodate 100-year storm events. This alternative would result in overtopped, flooding conditions and was rejected from further consideration.

1.10.3 Strawberry Creek Bridge Alternative S5

This alternative would preserve the existing masonry arch bridge and realign the roadbed approximately 54 feet south of the existing bridge. The proposed bridge would have two 12-foot lanes in each direction and 8-foot shoulders. As the existing bridge would be preserved, the proposed bridge would be required to be constructed away from the existing bridge to avoid overtopping flow of the existing bridge during 100-year storm events. Furthermore, by preserving the existing masonry arch bridge, maintenance would be required due to structural deterioration over time or caused by major storm events. A 100-foot wide Special Use Permit would be required from the USFS and this alternative would have the largest environmental footprint when compared with Strawberry Creek Bridge Alternatives S1 and S3.

1.10.4 Morrill Canyon Bridge Alternative M2

This alternative would retrofit the existing masonry arch with a 5.5-inch corrugated steel arch to preserve the structure in place and extend the existing bridge to the south approximately 29 feet 9 inches for two 12-foot lanes, 4-foot shoulders, and 2-foot medians. This alternative would reduce the already undersized, earth-filled arch capacity and would not be able to accommodate 50-and 100-year storm events. This alternative was rejected due to the potential overtopping and flooding issues.

1.10.5 Morrill Canyon Bridge Alternative M3

This alternative would preserve the existing masonry arch bridge by realigning the roadway approximately 62 feet south of the existing bridge. The proposed bridge would be required to be constructed away from the existing bridge to avoid backwater adverse effects caused by the under capacity to convey water during 50-year and 100-year storm events. Portions of the new alignment will fall within the upstream channel resulting in a 380 foot long bridge to span over the channel. Compared with Morrill Canyon Bridge Alternative M1, this bridge length for this alternative would be more than 10 times longer. Furthermore, part of the alignment, east of the replacement bridge on the eastbound roadway, cuts through the existing hillside and would require greater excavation. This alternative would have the largest environmental footprint when compared with Morrill Canyon Bridge Alternative M1. By preserving the existing masonry arch bridge, maintenance would be required due to structural deterioration over time or caused by major storm events.

1.11 Permits and Approvals Needed

The permits, licenses, agreements, and certifications listed in Table 1-5 would be required for project construction.

Table 1-5. Required Permits, Reviews, and Approvals

Agency	Permit/Approval	Status
State Water Resources Control Board	National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Strom Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation order number 2012-0011-DWQ, NPDES No. CAS00003	The current NPDES General Construction Permit would be applied prior to project construction.
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement	Application for 1602 permit will be submitted to CDFW after approval of the final Environmental Document.
Regional Water Quality Control Board (RWQCB), Region 8 (Santa Ana)	Porter-Cologne Act and Clean Water Act (CWA) Section 401 Water Quality Certification	Application for permit will be submitted to RWQCB after approval of the final Environmental Document. Permit will be acquired prior to completion of final design.
U.S. Army Corps of Engineers (USACE)	CWA Section 404 Nationwide Permit	Application for permit will be submitted to USACE after approval of the final Environmental Document. Permit will be acquired prior to completion of final design.
U.S. Fish and Wildlife Service	Endangered Species Act, Section 7 Consultation	Authorized through a Biological Opinion through WRMSHCP.
U.S. Forest Service	Special Use Permit at Strawberry Creek Bridge	Ongoing coordination.

This page intentionally left blank.

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

Topics Considered but Determined Not to Be Relevant

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

- Coastal Zone: The proposed project is not in the vicinity of a coastal zone.
- National Oceanic and Atmospheric Administration (NOAA) Fisheries Service Jurisdiction: This project is outside of NOAA Fisheries Service jurisdiction; therefore, a NOAA species list is not required and no effects on NOAA species are anticipated.
- Wild and Scenic Rivers: The proposed project is not in the vicinity of a designated Wild and Scenic River.
- Land Use: The proposed project improvements are consistent with statewide, regional, and local mobility goals, and are being coordinated with impacted governmental, regulatory and local agencies in the area to ensure consistency with specific local goals and objectives. The project would not change the land use designation or result in any zoning changes.
- Environmental Justice: Based on the U.S. Census Bureau, American FactFinder database, no data is available for the project sites at Morrill Canyon Bridge or Strawberry Creek Bridge. As the project involves the replacement of 2 existing bridges due to deterioration and non-standard features, minority or low-income populations are not anticipated to be adversely affected by the project. No minority or low-income populations that would be adversely affected by the proposed project have been identified, as determined above. Therefore, the project is not subject to the provisions of Executive Order 12898.
- Community Character and Cohesion: The project would replace the Morrill Canyon Bridge and Strawberry Creek Bridge on SR-74 and would not change the character or cohesiveness of the community. The project would not separate residences or divide neighborhoods or result in an increase or decrease to access to the area.
- Relocations and Real Property Acquisition: The project would not result in relocations of residences or businesses as the project involves the replacement of two bridges along SR-74.
- Farmlands: According to the California Department of Conservation's Farmland Mapping and Monitoring Program, no farmlands or vacant lands have been mapped as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance in the vicinity of the bridge locations.
- Growth: The proposed project would replace the Morrill Canyon Bridge and Strawberry Creek Bridge on SR-74 in Riverside County. It would not change accessibility, increase

capacity, or influence growth. As such, no growth impacts or indirect impacts on growth would occur.

- Hydrology and Floodplains: The proposed project is not within a designated Federal Emergency Management Agency (FEMA) one-percent-annual-chance (i.e., 100-year) floodplain. Floodplain maps are not available for the Morrill Canyon Bridge area, and the area of Strawberry Creek Bridge was designated as Zone D, indicating that the risk of flooding has not been determined. The Location Hydraulics Study Form and Summary Floodplain Encroachment Report concluded that the project, which consists of replacing 2 bridges along SR-74 in Riverside County, would not encroach upon the base floodplain, would not result in impacts upon natural and beneficial floodplain values, and considered a low level of risk.
- Paleontology: Due to the nature of the project, which involves replacement of the existing Morrill Canyon Bridge and Strawberry Creek Bridge, no paleontological studies were required for the project and impacts on paleontological resources are not anticipated to occur.
- Air Quality: The project is exempt from air quality conformity per 40 CFR 93.126 (Widening narrow pavements or reconstructing bridges [no additional travel lanes]). The project would result in safety improvements along an existing roadway. The project would not increase the capacity of the existing roadway or include the installation of traffic signals. No adverse effects on air quality are expected.
- Energy: The project would use a minimal amount of energy during construction activities, such as excavation, road cut and fill, demolition, and other construction-related activities. Construction-related effects on energy would likely be greatest during the site preparation phase because of energy use associated with the excavation, handling, and transport of soils and construction debris to and from the site. However, these construction activities would be short-term in duration and, therefore, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction. During project operation, the project would accommodate existing traffic demand, and it would not create new demand, directly or indirectly. The project would not reduce congestion and/or improve the level of service of traffic. As such, the operation of the project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources.
- Noise: No adverse noise impacts from project construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications, Section 14.8.02. This project falls under Type III project categories of 23 CFR 772.7 in the Traffic Noise Analysis Protocol dated April 2020. Per the Traffic Noise Analysis Protocol, Type III projects do not require a noise analysis. As such, it is considered an exempt project.

2.1 Human Environment

2.1.1 Parks and Recreational Facilities

2.1.1.1 Regulatory Setting

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400-5409) prohibits local and state agencies from acquiring any property which is in use as a public park at

the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

2.1.1.2 Affected Environment

Public parks and recreational facilities within 0.5 mile of the project site are presented in Table 2-1-1. The Morrill Canyon Bridge is within the Cleveland National Forest and the Strawberry Creek Bridge is within the San Bernardino National Forest, both managed by the U.S. Department of Agriculture, Forest Service.

Table 2-1-1. Public Parks, Trails, and Other Recreational Facilities within 0.5 Mile of the Project Limits

Facility Type	Name	Distance from Project (miles)	Activities
Trail (non-motorized)	San Juan Loop Trailhead	0.23 mile south of Morrill Canyon Bridge	Hiking, walking, biking trail with toilet facilities.
Trail (non-motorized)	Bear Canyon Trailhead	0.23 mile south of Morrill Canyon Bridge	Hiking, walking, biking trail.
Creek	Strawberry Creek	Within 0.5 mile north of Strawberry Creek Bridge	Fishing in creek with license.

Source: U.S. Department of Agriculture, Forest Service web page: https://www.fs.usda.gov/recarea/sbnf/.

The San Juan Loop Trailhead and the Bear Canyon Trailhead are both located within the Cleveland National Forest which is managed by the U.S. Forest Service and offers hiking, walking, and non-motorized biking trails with toilet facilities. Strawberry Creek is located in the San Bernardino National Forest which is also managed by the U.S. Forest Service and offers fishing activities. As these resources are part of a public park, the Park Preservation Act prohibits local and state agencies from acquiring such properties without sufficient compensation or land. As the proposed project would not affect these facilities and no acquisition of these resources would occur, the proposed project would not violate the Park Preservation Act under California Public Resources Code Section 5400-5409.

Section 4(f) Resources

Section 4(f) of the U.S. Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that “it is the policy of the United States government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project “requiring the use of the publicly owned land of a park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land of a historic site of national, state, or local significance (as determined by the federal, state, or local officials with jurisdiction over the park, area, refuge, or site) only if:

- There is no prudent and feasible alternative to using that land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

Section 4(f) further requires consultation with the Department of the Interior, as appropriate, and the involved offices of the Department of Agriculture and Department of Housing and Urban Development, as appropriate, in developing transportation projects and programs that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

Responsibility for compliance with Section 4(f) has been assigned to the Department pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

The San Juan Loop Trailhead and Bear Canyon Trailhead is a Section 4(f) resource within the project vicinity; however, no use of these resources would occur due to implementation of the proposed project. Strawberry Creek also offers recreational activities for fishing and would be considered a Section 4(f) resource. No use of Strawberry Creek would occur due to implementation of the proposed project. These resources would not be affected by the proposed project, access would not be affected to these resources, and no changes to the use of these resources would occur as a result of the project. For further analysis of Section 4(f) historic resources, please refer to the Programmatic Section 4(f) and Individual Section 4(f) Evaluations in Appendix A.

2.1.1.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
The proposed project would not acquire public parkland for non-parkland use; therefore, the California Public Park Preservation Act of 1971 would not apply. Construction activities would result in temporary, localized, site-specific disruptions along SR-74 at Morrill Canyon Bridge and Strawberry Creek Bridge within the project's limits of disturbance. No temporary easements or temporary closures would be required at San Juan Loop Trailhead, Bear Canyon Trailhead, or Strawberry Creek. No temporary impacts on these facilities are anticipated.

No-Build Alternative
Under the No-Build Alternative, construction activities associated with the proposed project would not occur. Therefore, no existing or planned parks or recreational facilities in the area would be temporarily affected, and no direct or indirect adverse short-term impacts on recreational and Section 4(f) resources would occur.

Section 4(f) Properties
The publicly owned parks and recreational areas within 0.5 mile of the project area were evaluated with respect to the requirements of Section 4(f) (see Appendix A). Historic Resources are evaluated in the Cultural Resources section of this document.

The San Juan Loop Trailhead, Bear Canyon Trailhead, and Strawberry Creek are the Section 4(f) recreational resources within the project area of Morrill Canyon Bridge and Strawberry Creek Bridge. Full closures of the San Juan Loop Trailhead, Bear Canyon Trailhead, and Strawberry Creek are not anticipated to occur during construction of the project. Construction is anticipated

to last up to 12 months. During this time, no detours would be required to access the San Juan Loop Trailhead, Bear Canyon Trailhead or Strawberry Creek. No adverse effects on these resources are anticipated because the trailheads and creek would not be closed during construction, and the uses of the trails and creek that qualify these resources for protection under Section 4(f) would not be adversely affected during construction. However, during construction, trail and creek users would be exposed to indirect construction activities, such as increased noise through the project area, visual changes from construction equipment, and potential increases in dust and air quality concerns. These indirect impacts on the trailheads and creek are temporary in nature, lasting only through the duration of construction, and would not constitute a use under Section 4(f) of the U.S. Department of Transportation (USDOT) Act.

Permanent

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
The alternatives would not result in permanent impacts on the San Juan Loop Trailhead, Bear Canyon Trailhead, or Strawberry Creek. As such, no permanent impacts under CEQA or adverse effects under NEPA would occur.

No Build Alternative
Under the No-Build Alternative, replacement of the Morrill Canyon Bridge or Strawberry Creek Bridge would not occur. Therefore, no existing or planned parks or recreational facilities would be affected, and no direct or indirect adverse long-term impacts on recreational or Section 4(f) resources would occur.

Section 4(f) Properties
The publicly owned trails and recreational areas within 0.5 mile of the Morrill Canyon Bridge and Strawberry Creek Bridge were evaluated with respect to the requirements of Section 4(f). That evaluation, presented in Appendix A, concluded that the proposed project would have no long-term, permanent use on Section 4(f) resources. Access would be maintained to the trailheads and creek, and the project would not require right of way at any Section 4(f) property.

2.1.1.4 Avoidance, Minimization, and/or Mitigation Measures

No additional measures are required. Temporary construction impacts would be minimized with implementation of the Traffic Management Plan (TMP); refer to measure TMP-1.

2.1.2 Timberlands

2.1.2.1 Regulatory Setting

Impacts to timberland are analyzed as required by the California Timberland Productivity Act of 1982 (California Government Code Sections 51100 et seq.), which was enacted to preserve forest resources. Similar to the Williamson Act, this program gives landowners tax incentives to keep their land in timber production. Contracts involving Timber Production Zones (TPZs) are on 10-year cycles. Although state highways are exempt from provisions of the act, the California Secretary of Resources and the local governing body are notified in writing if a new or additional right of way from a TPZ will be required for a transportation project.

2.1.2.2 Affected Environment

The project would transverse the Cleveland National Forest and the San Bernardino National Forest and therefore fall within the protected open space of each of the national forests. The Cleveland National Forest is the southernmost national forest in California. Consisting of 460,000 acres, spanning from Orange and Riverside Counties to San Diego County, the forest offers a wide variety of terrains and recreational opportunities including bicycling, camping, fishing, hiking, horseback riding, hunting, nature viewing, and picnicking. The Cleveland National Forest includes three mountain ranges: the Santa Ana, Palomar, and Laguna (Cuyamaca) Mountains. Elevations range from 1,140 feet to 5,687 feet with very steep topography in most places. The Morrill Canyon Bridge is located within the Cleveland National Forest. The San Bernardino National Forest consists of 811,571 acres and offers three visitors centers, family campgrounds, hiking trails, picnic areas, equestrian campgrounds, and fishing piers. Lakes include Big Bear Lake, Barton flats, Lake Arrowhead, Lytle Creek, Lake Fulmore, and Lake Hemet. The forest is named for the San Bernardino Mountains, which are a range of mountains at the eastern end of the Sierra Madre chain. The Strawberry Creek Bridge is located within the San Bernardino National Forest.

2.1.2.3 Environmental Consequences

Morrill Canyon Bridge Alternative M1

This alternative would result in 12-foot lanes in each direction, 8-foot shoulders, new bridge rail to match the existing aesthetics which will be coordinated with Caltrans Landscape Architecture and Structures during the Plans, Specifications, and Estimates (PS&E) phase, reconstructing one overside drain system, new MGS, rumble strip, and temporary two-lane detour bridge on the south side of the Morrill Canyon Bridge. This temporary two-lane detour bridge would be built on the south side of the existing bridge to avoid the Cleveland National Forest. Hydroseeding will be required as part of erosion control measures for areas of disturbance and trees that are removed will be replaced at a 3:1 ratio, as required by the Caltrans Landscape Architect. Temporary construction impacts would occur outside of the existing right of way; however, once the project is constructed, the new bridge would be within the existing right of way.

Strawberry Creek Bridge Alternatives S1 and S3

Strawberry Creek Bridge Alternative S1 involves building one segment of the bridge on the south side of the existing alignment and utilizing reverse traffic control during construction. No temporary detour bridge would be required to be built under this alternative. Under Strawberry Creek Bridge Alternative S3, a two-way detour bridge is proposed to be built approximately 42.5 feet south of the existing yellow strip to maintain traffic flow during construction. Both Alternative S1 and S3 would result in right of way being acquired from the U.S. Forest Service for work on assessor parcel numbers (APNs) 557060011 and 55706002. As a result, a Special Use Permit will be required from the U.S. Forest Service for Strawberry Creek Bridge Alternatives S1 and S3. The additional right of way would not be required from a TPZ.

Furthermore, for all alternatives, during construction, the project would result in the removal of vegetation and trees. According to the U.S. Forest Service, once a tree has been cut, the tree must remain on site and be used as mulch within the post miles of the project limits. A 3:1 tree

replacement ratio is required by the Caltrans District Landscape Architect. Furthermore, hydroseeding and fiber roll methods will be implemented as part of erosion control measures.

2.1.2.4 Avoidance, Minimization, and/or Mitigation Measures

TMB-1 In accordance with U.S. Forest Service guidelines, trees that are cut will remain on site and be used as mulch within the project limits.

TMB-2 For every tree cut, a 3:1 tree replacement ratio is required by the Caltrans District Landscape Architect. Hydroseeding and fiber roll methods will also be implemented as part of the erosion control measures.

2.1.3 Utilities/Emergency Services

2.1.3.1 Affected Environment

No utilities would be affected by the proposed project. There are no overhead electrical or utility lines within the project limits. The Riverside County Fire Department, in cooperation with the California Department of Forestry and Fire Protection (CAL FIRE), provides fire and emergency services in the area of Morrill Canyon Bridge. The nearest fire station to Morrill Canyon Bridge is the Riverside County Fire Department Station 51 located at 32353 Ortega Highway in Lake Elsinore. The Riverside County Sheriff's Department provides police services in the area of Morrill Canyon Bridge, and the nearest sheriff's station is the Lake Elsinore Station, located at 333 Limited Avenue in Lake Elsinore. Near the Strawberry Creek Bridge, the Cranston Station and the Keenwild Station of the San Bernardino National Forest are the nearest fire stations. The nearest sheriff's station to Strawberry Creek Bridge is the Riverside County Sheriff's Department's Hemet Station located at 43950 Acacia Avenue in Hemet.

2.1.3.2 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
Construction activities, including nighttime construction, have the potential to result in traffic delays during the construction period. Morrill Canyon Bridge Alternative M1 and Strawberry Creek Bridge Alternative S3 would include a temporary two-lane detour bridge to be built on the south side of the bridge during construction. Strawberry Creek Bridge Alternative S1 would utilize reverse traffic control for all stages of construction. The temporary detour bridge and reverse traffic control activities could increase response times for emergency vehicles during construction; however, the proposed project would include preparation and implementation of a TMP. Construction impacts would be short term, lasting only the length of construction and cease upon completion of construction.

Although no utilities are located in the area of the bridges, for any unknown utilities affected during construction, all required coordination will be completed to establish exact procedures and specifications for addressing facilities affected by the project. Measures are provided below to ensure that disruption to services and impacts on the facilities are minimized or avoided during the construction phase. In addition, if relocation of any utilities requires use of area(s)

beyond the construction footprint associated with the current proposed project, studies will be reviewed or performed as appropriate and applicable measures will be implemented.

No-Build Alternative
Under the No-Build Alternative, no construction would occur; therefore, temporary construction impacts on utilities and emergency service providers would not occur.

Permanent

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Bridge Alternatives S1 and S3
No utilities are anticipated to be affected by the proposed project. However, decisions regarding relocation of utilities, if any, would occur during final design. Prior to the final design, coordination with the affected utility providers in the vicinity of the improvements would be completed to verify that the project would not disrupt services. For any utilities affected, all required coordination would be completed to establish exact procedures and specifications for addressing facilities affected by the project. As necessary, additional analysis would be completed, and any measures identified in conjunction with the analysis would be implemented. Any required relocations of utilities would be completed prior to any project-related construction.

Morrill Canyon Bridge Alternatives M1 and Strawberry Creek Bridge Alternatives S1 and S3 would improve the safety and mobility for the traveling public. This would in turn improve the delivery of public services, including police, fire, and emergency vehicle response, in the area of both bridges that otherwise would not occur under the No-Build Alternative.

No-Build Alternative
Under the No-Build Alternative, the surrounding transportation network would be maintained, and no changes in the project area of Morrill Canyon Bridge and Strawberry Creek Bridge would occur. No long-term impacts on utilities or emergency service providers would occur under the No-Build Alternative.

2.1.3.3 Avoidance, Minimization, and/or Mitigation Measures

No avoidance or mitigation measures are required. Temporary construction impacts on emergency service providers would be addressed with implementation of a TMP, which would minimize disruption to emergency services.

2.1.4 Traffic and Transportation/Pedestrian and Bicycle Facilities

2.1.4.1 Affected Environment

Information in this section is based on the Caltrans Traffic Accident Surveillance and Analysis System (TASAS) and the Draft Project Report dated October 2020 prepared for the project.

SR-74 is a two-lane, undivided conventional highway with narrow right shoulders and steep embankments with a significant portion traversing mountainous terrain. At both project locations, Morrill Canyon Bridge and Strawberry Creek Bridge, SR-74 is not a bicycle route and

there are no existing pedestrian paths or bicycles lanes available. Both bridge structures currently have non-standard lane and shoulder widths.

Traffic forecasting has been prepared for the project to analyze the existing year (2020), construction year (2022), and future years (2044, 2064) traffic conditions along SR-74. Traffic forecasting of the SR-74 mainline within the project study limits are summarized in Tables 2.1-2 and 2.1-3.

Table 2.1-2. Existing, Future Year Average Daily Traffic Volumes (Morrill Canyon Bridge PM 2.9/3.2)

	2020	2022	2024	2044	2064
Annual Average Daily Traffic (AADT)	11,300	11,700	12,100	17,100	22,700
2-way Peak Hour Volume	1,110	1,150	1,190	1,680	2,230
One Way Peak Hour Volume	650	660	670	840	1,110
Truck % in AADT	7%	7%	7%	7%	7%
Truck % in Peak Hour Volume	4%	4%	4%	4%	4%

Table 2.1-3. Existing, Future Year Average Daily Traffic Volumes (Strawberry Creek Bridge PM 53.4/53.7)

	2020	2022	2024	2044	2064
Annual Average Daily Traffic (AADT)	3,800	3,900	4,100	5,800	7,600
2-way Peak Hour Volume	420	430	450	640	850
One way Peak Hour Volume	270	270	270	320	1,110
Truck % in AADT	7%	6%	6%	7%	7%
Truck % in Peak Hour Volume	4%	4%	3%	3%	3%

Collision Analysis

The TASAS for the most current three-year period from April 1, 2017, to March 31, 2020, indicated that for the Morrill Canyon Bridge location, the Actual Fatal plus Injury and total accident rates were higher than the statewide average. The most common types of collisions were vehicle overturn at 29.4 percent, followed by hit object and rear-end type collisions, each with 23.5 percent. The primary collision factor at the Morrill Canyon Bridge was attributed to speeding. At the Strawberry Creek Bridge location, the Actual Fatal plus Injury and total accident rates were also higher than the statewide average. The types of collisions were overwhelmingly caused by hit object at 62.5 percent followed by sideswipe at 25 percent. The primary collision factor at the Strawberry Creek Bridge was attributed to improper turns. Refer to Tables 1-1 to 1-3 in Chapter 1.

2.1.4.2 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Bridge Alternatives S1 and S3
During construction, temporary impacts, such as nighttime construction, reverse traffic control for Strawberry Creek Bridge Alternative S1, and temporary detour bridges for Morrill Canyon Bridge Alternative M1 and Strawberry Creek Bridge Alternative S3 would occur. These temporary impacts could result in traffic delays along SR-74 in the vicinity of the bridges. However, the proposed project would include preparation and implementation of a TMP. The TMP could include, but not necessarily be limited to, public information communications, such as mailers, handouts, brochures, and press releases; information for motorists from changeable message signs or temporary signage; construction strategies, such as traffic plans; and information regarding construction staging and lane modifications. Constructions impacts would be temporary, only lasting the length of construction and cease upon completion of the project. The start of construction is anticipated to begin in early 2023 and last up to 12 months.

No-Build Alternative
Under the No-Build Alternative, no construction would occur; therefore, temporary impacts—such as lane closures, nighttime construction, and flagging—would not occur.

Permanent

Morrill Canyon Bridge Alternatives M1, Strawberry Canyon Bridge Alternatives S1 and S3
The proposed replacements of Morrill Canyon Bridge and Strawberry Creek Bridge would result in widened lanes to standard 12-foot widths and widen shoulders to a minimum of 4 feet, depending on the alternative, which would provide greater surface recovery area for motorists and may result in a positive effect on the accident rates. In addition, the new bridge structures and rail will offer better protection to errant vehicles by providing a stronger and safer bridge rail configuration.

No-Build Alternative
Under the No-Build Alternative, no construction would occur; therefore, permanent impacts would not occur.

2.1.4.3 Avoidance, Minimization, and/or Mitigation Measures

TMP-1 A TMP would be prepared and will be implemented during construction of the project. Public information and awareness campaigns, motorist information strategies, and incident management strategies in the TMP would inform the public of the proposed project.

2.1.5 Visual/Aesthetics

2.1.5.1 Regulatory Setting

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

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

California Streets and Highways Code Section 92.3 directs Caltrans to use drought-resistant landscaping and recycled water when feasible, and to incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

2.1.5.2 Affected Environment

A Questionnaire to Determine Visual Impact Assessment (VIA) level was completed on September 14, 2020 for the project and indicated that visual changes to the existing environment would occur, however, a VIA report was not required. The proposed project is located along SR-74 at the Morrill Canyon Bridge in the Cleveland National Forest and Strawberry Creek Bridge in the San Bernardino National Forest. The section of SR-74 within the project limits at Morrill Canyon Bridge is listed as an eligible State Scenic Highway and the section of SR-74 within the project limits at Strawberry Creek Bridge is Officially Designated as State Scenic Highway. Vehicles traveling along SR-74 have views of the mountainous terrain including vegetation, rock formations, and trees immediately adjacent to the roadway with pockets of dirt turnout areas. The rolling hills in the background can be seen between the trees, vegetation, and rocks of the foreground.

2.1.5.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
Construction impacts could result from warning signage, equipment storage, and night-time construction that would require additional lighting. These construction activities may temporarily obscure views. Construction of the proposed improvements is expected to start in February 2023 and be completed in approximately 12 months. As mentioned, the potential exists for some nighttime construction to occur. This would create the need for high-intensity lighting. However, such lighting would not result in adverse impacts at most locations because sensitive residential receptors would be some distance away from or not within sight of the construction area. Furthermore, roadway travelers would be exposed to such lighting very briefly as they pass by. Implementation of avoidance and minimization measure AES-1 would ensure that nighttime

construction would not occur directly adjacent to residences and that the construction contractor would minimize project-related light and glare to the maximum extent feasible during nighttime construction activities.

No-Build Alternative
Under the No-Build Alternative, no new bridge or other improvements would be constructed at the project site; therefore, neither temporary nor construction-related effects on the existing visual setting or aesthetic condition would occur.

Permanent

Morrill Canyon Bridge Alternative M1 and Strawberry Creek Bridge Alternatives S1 and S3
The project would not result in substantial permanent impacts on the visual environment. The bridge rails would be aesthetically similar to current conditions. The matching aesthetics will be coordinated with Caltrans Landscape Architecture and Structures during the PS&E phase. The MGS railing will also be stained to blend in visually with the surroundings. The overall views at the bridge area would be similar to what viewers experience while traveling through this area of SR-74. The existing Strawberry Creek Bridge has a cobblestone texture, and the new bridge is expected to have architectural treatments resembling the existing bridge. Viewers traveling in vehicles along SR-74 would likely not notice any changes in the visual scenery with the new bridges. Furthermore, viewers would not be expected to focus on the roadway being widened to standard widths, or focus on widened shoulders.

Upon project completion, the site's graded elevation would be similar to existing conditions. For this reason, the project would not obstruct public views or other visual resources. As such, the project would not have a substantial adverse effect on a scenic view or vista.

No-Build Alternative
Under the No-Build Alternative, no new bridge replacements would be made at the project site; therefore, no long-term visual effects on the existing visual setting or aesthetic condition would occur.

2.1.5.4 Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following measure would avoid or minimize visual impacts:

AES-1 **Minimize Fugitive Light from Portable Sources Used for Construction.** The construction contractor will minimize project-related light and glare to the maximum extent feasible, given safety considerations. Color-corrected halide lights will be used. Portable lights will be operated at the lowest allowable wattage and height. For construction occurring on the ground, portable lights will be raised to a height no greater than 20 feet. All lights will be screened and directed downward, toward work activities, and away from the night sky and nearby residents to the maximum extent possible. The number of nighttime lights used will be minimized to the greatest extent possible.

2.1.6 Cultural Resources

2.1.6.1 Regulatory Setting

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

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 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 PRC Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California

Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU) between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

2.1.6.2 Affected Environment

Information from this section is based on the August 2020 *Historic Property Survey Report* (HPSR) prepared for this project, which included an *Archaeological Survey Report* (ASR), and November 2020 Supplemental HPSR.

Area of Potential Effect

In accordance with the Section 106 Programmatic Agreement, Stipulation VIII.A, the Area of Potential Effect (APE) for the project was established in consultation with Shannon Clarendon, Principal Investigator, Prehistoric Archaeology, the Department's Professional Qualified Staff (PQS); and Prakash Gowda, Project Manager, on January 6, 2020. The revised APE was prepared on November 23, 2020 and account for all direct/indirect impacts within the revised project's construction footprint. The revised APE maps are included in Attachment A of the Supplemental HPSR.

The discontiguous APE was established to account for all direct/indirect impacts within the project's horizontal and vertical construction footprint. The projected horizontal construction footprint encompasses Morrill Canyon Bridge and Strawberry Creek Bridge, four Temporary Construction Easements (TCEs), and the Caltrans right of way. The APE was delineated along SR-74 between PM 2.97 and 3.3 and between PM 53.4 and 53.56, and includes a total of 5.8 acres. The width of the APE fluctuates between 98.4 feet (30 meters) and 160.7 feet (49 meters) with the vertical component proposed to extend a maximum of 3.6 feet (1.1 meter) above the pavement to a maximum depth of 26.24 feet (8 meters) below pavement for construction of detours and bridge railing and/or bridge replacement. Based on the Supplemental HPSR prepared for the project, the APE was updated. The horizontal component of the APE has changed at both bridge locations, however, the vertical component or depth remains the same as the previous APE. For Morrill Canyon Bridge, the APE has been reduced from 5.8 acres to 3.115 acres and now includes a portion of the driveway to Tenaja Truck Trail. The overall post mile limits have been reduced and now extend from PM 2.9 to PM 3.2. At Strawberry Creek Bridge, the APE has been increased from approximately 1.0 acres to 1.6 acres. The cross section has also increased on the southside of the highway and now extends 17 to 45 feet from the original southern APE boundary delineation. The overall post mile limits now extend from PM 53.37 to PM 53.57.

Recent field verification and a review of previous projects concluded that the parcels adjacent to the APE lack archaeological and NRHP-eligible built-environment resources.

Native American Consultation

A request to the Native American Heritage Commission (NAHC) was made on September 17, 2019, and a response was received on October 7, 2019. The project area was negative for Sacred Lands File results. In consultation with the District Native American Coordinator (DNAC) the

following tribes were contacted for further information: Pala Band of Mission Indians, Pechanga Band of Luiseno Indians, Rincon Band of Luiseno Indians, and the Soboba Band of Luiseno Indians.

Chapter 4 (Comments and Coordination) of this Initial Study/Environmental Assessment (IS/EA) includes a summary of consultation efforts conducted with pertinent Native American contacts to satisfy the requirements of Section 106 of the NHPA, California Public Resources Code 21080.3.1, and Chapter 532 Statutes of 2014 (i.e., AB 52).

Local Historical Society / Historic Preservation Group

Several local historical societies were contacted in October 2019 for information requests regarding the project: Historical Society of Palm Desert, Coachella Valley Archaeological Society, Idyllwild Area Historical Society, Lake Elsinore Historical Society, and San Juan Capistrano Historical Society. The Lake Elsinore Historical Society responded and indicated the proposed project was located west of their area of interest, and they had no concerns regarding the Morrill Canyon Bridge. All others groups have not responded to the request from October 2019. Additional outreach was provided on September 2, 2020 for input on the forthcoming Memorandum of Agreement and the revised areas of the APE. No response has been received from the Historical Society of Palm Desert, Idyllwild Area Historical Society, or the San Juan Capistrano Historical Society. The Coachella Valley Archaeological Society indicated they would respond should they have any concerns, but no response has been received to date. The Lake Elsinore Historical Society responded and indicated no historic connotation of the bridges with regards to the City of Lake Elsinore.

Archaeological Resources

The following sources were consulted:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- National Historic Landmark (NHL)
- California Historical Landmarks (CHL)
- California Points of Historical Interest (CPHI)
- Sacred Lands File of the Native American Heritage Commission (NAHC)
- Caltrans Cultural Resources Database
- Caltrans Historic Bridge Inventory

The reconnaissance survey was conducted on November 25 and 26, 2019. However, a formal record search and intensive pedestrian survey were not warranted for this project due to previous Caltrans projects in the area.

The results of the research and survey conducted of the project APE culminated in the identification of five cultural resources within the APE:

- CA-RIV-8089H (P-33-015321), SR-74 Pines to Palms Highway: Eligible for NRHP.
- CA-RIV-10575H (P-33-006976), Strawberry Creek Bridge No. 56-0180, Category 2 bridge: Eligible for NRHP.
- CA-RIV-10574H (P-33-007236), Morrill Canyon Bridge No. 56-069, Category 2 bridge: Eligible for NRHP.
- CA-RIV-8046H (P-33-15132), Keen Camp Road: Exempt Property Type: 1 Isolated segment of bypassed or abandoned road.
- P-33-007234, Ortega Highway: Ineligible for NRHP.

The study area for this project is located at two highway bridge locations that experience consistent high-velocity-fluvial occurrences, in addition to the fact that the APE is mostly cut into Cretaceous-granite bedrock along the side slopes of the mountains. Therefore, most of the study area is underlain by, and cut into, granitic bedrock, ultimately placing the APE and all proposed project activities well below any probable cultural layers. These factors create an unlikely potential for archaeological preservation. The HPSR indicated that the probability of encountering in situ cultural deposits during ground-disturbing activities associated with the proposed project is extremely low.

2.1.6.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Alternatives S1 and S3
The field and research methods conducted for the project did not identify any archaeological cultural resources within the APE; however, three previously recorded Historic Properties were identified during the records search and literature review. They are the listed as follows:

- CA-RIV-8089H (P-33015321): Historic Pines to Palms Highway – NRHP Eligible.
- CA-RIV-10575H (P-33-006976): Strawberry Creek Bridge – NRHP Eligible.
- CA-RIV-10574H (P-33-007236): Morrill Canyon Bridge – NRHP Eligible.

The three consist of built-environment resources that are considered elements of, or connect to, the highway in some manner. Because these Historic Properties exist within the APE there is a potential for project-related activities to have an effect on these properties. The project has an “adverse effect” on the three properties listed above, and a Memorandum of Agreement will be prepared, outlining the mitigation agreed to by Caltrans and the SHPO. Overall, the project (undertaking) as a whole has an adverse effect on historic properties.

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

If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the NAHC, who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendant (MLD). At this time, the person who discovered the remains will contact Andrew Walters, District Environmental Branch Chief ([909] 383-2647) or Gary Jones, District Native American Coordinator ([909] 383-7505), so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

No-Build Alternative

The No-Build Alternative would not result in project construction; therefore, no construction-related impacts on cultural resources would occur under the No-Build Alternative.

Permanent

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Bridge Alternatives S1 and S3

As stated above, the field and research methods conducted for the project did not identify any archaeological cultural resources within the APE; however, three previously recorded Historic Properties were identified during the records search and literature review. The three consist of built-environment resources that are considered elements of, or connect to, the highway in some manner. Because these Historic Properties exist within the APE there is a potential for project-related activities to have an effect on these properties. The project has an “adverse effect” on the three properties listed above, and a Memorandum of Agreement will be prepared, outlining the mitigation agreed to by Caltrans and the SHPO. Overall, the project (undertaking) as a whole has an adverse effect on historic properties. Caltrans initiated consultation with the SHPO regarding the project in a letter dated April 17, 2020. A Finding of Effect (FOE) was prepared and proposed that a Finding of Adverse Effect is appropriate for the undertaking. SHPO concurrence on the finding of adverse effect was received on June 8, 2020.Caltrans has initiated further consultation with SHPO in December 2020 regarding the resolution of adverse effects through the execution of an Memorandum of Agreement (MOA). The MOA will be executed prior to Caltrans approval of the Final ISEA.

No-Build Alternative

Under the No-Build Alternative, historic properties and archaeological resources would not be affected because no ground disturbance would take place.

2.1.6.4 Avoidance, Minimization, and/or Mitigation Measures

Measures CR-1 and CR-2, which are standard measures for all Caltrans projects, are included to ensure that potential effects on cultural resources and human remains, should they be discovered during construction, would be avoided. Additional mitigation measures will be included in this section once Caltrans and the SHPO execute the MOA for project.

CR-1 If buried cultural resources are encountered during project activities, it is Caltrans’ policy that all work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find.

CR-2 In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendant (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

2.2 Physical Environment

2.2.1 Water Quality and Storm Water Runoff

2.2.1.1 Regulatory Setting

Federal Requirements

Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source[1] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

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

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

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

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE’s Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE

[1] A point source is any discrete conveyance such as a pipe or man-made ditch.

decision to approve is based on compliance with U.S. Environmental Protection Agency's (U.S. EPA) Section 404 (b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[2] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements

Porter-Cologne Water Quality Control Act

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

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

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

the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

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

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

1. The Department must comply with the requirements of the Construction General Permit (see below);
2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

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

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with the Department's SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

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

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

2.2.1.2 Affected Environment

The primary source used in the preparation of this section is the November 2020 *Natural Environment Study* prepared for the project.

The project area contains four drainages including Strawberry Creek, Morrill Canyon Creek, and two unnamed small tributaries in the Morrill Canyon Bridge area. The three Morrill Canyon

drainages are within the Aliso-San Onofre Watershed and flow downstream to the west and eventually into the Pacific Ocean approximately 18.5 miles southwest of the project area. Strawberry Creek is within the San Jacinto Watershed and is in a TMDL area, flowing south and then west from the site into the San Jacinto River. When flows are present in the San Jacinto River, water flows to the west into Canyon Lake and eventually into Lake Elsinore. Caltrans is the stakeholder for nutrients in the San Jacinto Watershed. The Morrill Canyon Bridge occurs in the San Diego RWQCB (Region 9), and the Strawberry Creek Bridge occurs in the Santa Ana RWQCB (Region 8).

2.2.1.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
Pollutants of concern during construction include sediments, rash, petroleum products, concrete waste, sanitary waste, and construction chemicals. During construction activities, excavated soil would be exposed, and there would be an increase in potential for soil erosion compared to existing conditions. In addition, chemicals, liquid products, and petroleum products (such as paints, solvents, and fuels), and concrete-related waste may be spilled or leaked, and have the potential to be transported via storm runoff into receiving waters.

Furthermore, construction would disturb soil and increase the potential for soil erosion and suspended particles that can be generated from vehicles operating on a roadway. It is anticipated that there will be cuts and fills associated with the project; however with implementation and maintenance of temporary construction site BMPs it is expected that there will be no decline in water quality as a result of the proposed project.

Both the Morrill Canyon Bridge and Strawberry Creek Bridge are built over a jurisdictional feature and has riparian habitat. If the USACE asserts jurisdiction over the onsite drainages, then a 404 permit will be required. A 1602 Streambed Alteration Agreement is required for all activities that alter streams and lakes and their associated riparian habitat. As mentioned, the Morrill Canyon Bridge occurs in the San Diego RWQCB and the Strawberry Creek Bridge occurs in the Santa Ana RWQCB. Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into waters of the U.S. does not violate state water quality standards. The RWQCB also regulates impacts on waters of the state under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impacts and the properties of the waterway. Caltrans will obtain a Water Quality Certification for the project.

Construction activities will be limited to the smallest footprint possible within the drainage features, and fencing will be erected along the construction footprint to avoid inadvertent disturbances to additional areas within the drainage. In addition to the BMPs in the SWPPP and 2018 Standard Specifications, avoidance and minimization measures will also be implemented to minimize effects during construction.

No-Build Alternative
Under the No-Build Alternative, no bridge replacement would occur at Morrill Canyon Bridge or Strawberry Creek Bride, and as such, no construction-related impacts on water quality would occur.

Permanent

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
The proposed project has the potential to affect water quality during the operation phase. Potential pollutant sources associated with operations include motor vehicles, bridge maintenance, illegal dumping, and unexpected spills. Increasing the lane and shoulder width would result in an increase in impervious surface area, which would increase storm water runoff. Caltrans will treat all of the water quality volume of the new impervious surface associated with the project. It is not anticipated that any of the build alternatives would cause a change to sedimentation in receiving water bodies within the project area because the project would result in relatively minor increases in runoff compared to the entire hydrologic area. The proposed slopes within the proposed project would be stabilized with incorporation of the Department's standard Design Pollution Prevention (DPP) BMPs, and Treatment BMPs. These BMPs would be implemented to improve stormwater quality during the operation of the transportation facility to minimize potential stormwater and non-stormwater impacts on water quality. The Department's SWMP describes how the Department would comply with their Statewide National Pollutant Discharge Elimination System Permit. The SWMP characterizes the program that the Department would implement to minimize the discharge of pollutants associated with storm drainage systems that serve highway, highway-related properties, facilities, and activities. Post-construction erosion control will be required to ensure that the project site does not pose any additional sediment discharge risk than it did prior to the beginning of construction. The proposed project would not alter the alignment of a stream or other waterbody.

No-Build Alternative
Under the No-Build Alternative no bridge replacements would occur at Morrill Canyon Bridge or Strawberry Creek Bridge. As such, no increase in runoff flow velocities, volumes, or peak flow rates would occur. This alternative would not increase the impervious surface area of the project area. Therefore, drainage and surface runoff would remain as it currently does, and roadway runoff in the area would remain unchanged from existing conditions.

2.2.1.4 Avoidance, Minimization, and/or Mitigation Measures

The following standard measures would be implemented to minimize potential water quality and hydrological impacts associated with construction and operation:

WQ-1 The project will comply with Caltrans Standard Specifications for construction site Best Management Practices (BMPs), including complying with U.S. Environmental Protection Agency's (U.S. EPA's) Construction General Permit, discharges of stormwater from the job site, compliance with permits issued by Regional Water Quality Control Board (RWQCB) for National Pollutant Discharge Elimination System (NPDES) Permit, and permits governing stormwater and non-stormwater discharges resulting from construction activities at the job site.

WQ-2 The project will comply with Caltrans Standard Specifications related to complying with the provisions of the current NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, and any subsequent permit, as they relate to construction activities for the project. This will include submission of the permit registration documents, including a Notice of Intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water Resources Control Board (SWRCB) at least 14 days prior to the start of construction activity. The SWPPP will (1) meet the requirements of the Construction General Permit and identify potential pollutant sources associated with construction activities; (2) identify non-stormwater discharges; and (3) identify, implement, and maintain BMPs to reduce or eliminate pollutants associated with the construction site. The BMPs identified in the SWPPP will be implemented during the project construction. A Notice of Termination will be submitted to SWRCB upon completion of construction and the stabilization of the site.

WQ-3 The project will comply with Caltrans Standard Specifications related to complying with the provisions of the current General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (*De Minimis*) Threat to Water Quality as they relate to discharge of non-storm water dewatering wastes for the project.

WQ-4 The project will comply with Caltrans Standard Specifications related to complying with the provisions of the Section 401 Water Quality Certification, a Section 404 permit from the U.S. Army Corps of Engineers (USACE), and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife will be obtained prior to impacts within identified jurisdictional areas.

WQ-5 Specifications related to complying with the provisions of the Department's current Statewide NPDES Permit, effective July 1, 2013 (known as the Department's MS4 permit). Project-specific BMPs and any applicable hydromodification features will be incorporated into final design. The BMPs will be properly designed and maintained to target pollutants of concern and reduce runoff from the project site.

2.2.2 Geology/Soils/Seismicity/Topography

2.2.2.1 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 the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Department's Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A

bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department's Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

2.2.2.2 Affected Environment

Morrill Canyon Bridge is located 1,946 feet above mean sea level (amsl) and Strawberry Creek Bridge is 2,988 feet amsl. The bridges are located in the following U.S. Geological Survey (USGS) 7.5-minute California quadrangles: Morrill Canyon Bridge is in the Sitton Peak quadrangle, and Strawberry Creek Bridge is in the Blackburn Canyon quadrangle. Morrill Canyon Bridge is in Township 6 South – Range 5 West. Strawberry Creek Bridge is in Township 5 South – Range 2 East. Both bridges are located within the U.S. Forest Service with Morrill Canyon Bridge bordered by the Trabuco Ranger District to the north and the Strawberry Creek Bridge in the San Jacinto Ranger District. Soils in the project area include the following:

- Capistrano Sandy Loam: The Capistrano series consists of very deep, well drained soils that formed in alluvium from sedimentary or granitic sources. Capistrano soils are on alluvial fans and flood plains in small valleys.
- Cieneba Rocky Sandy Loam (15 to 50 percent slopes, eroded): A somewhat deep and somewhat excessively drained soil that formed in alluvium derived primarily from residuum weathered from igneous rock that occurs on hills.
- Soboba-Hanford Family Association (2 to 8 percent slopes): A deep and well-drained soil that occurs on alluvial fans with many areas dissected by deep intermittent drainages. This soil type was formed in alluvium, primarily derived from granite.

Geologic Hazards

Landslides

Both bridges are located in hilly, mountainous terrain. The County of Riverside General Plan, Elsinore Area Plan, Slope Instability map indicates that the area of Morrill Canyon Bridge is not located within an area designated for slope instability. The County of Riverside General Plan, Riverside Extended Mountain Area Plan (REMAP), Slope Instability map indicates that the area of Strawberry Bridge is partially located in an area designated as Low to Locally Moderate Susceptibility to Seismically Induced Landslides and Rockfalls.

Seismicity

According to the County of Riverside General Plan Elsinore Area Plan, the nearest earthquake fault to the Morrill Canyon Bridge is the Elsinore Fault Zone located approximately 5 miles east in the City of Lake Elsinore. The Southern California Earthquake Data Center indicates the Elsinore Fault Zone as running north-south along Lake Elsinore and is considered one of the largest in southern California, as well as one of quietest, with the last major rupture occurring in 1910. The probable magnitude capable from the Lake Elsinore Fault Zone is 6.5 to 7.5. According to the County of Riverside General Plan REMAP, Hot Springs fault, Buck Ridge fault, and San Jacinto fault zone are the nearest faults to the Strawberry Creek Bridge. The Hot Springs and Buck Ridge faults have a length of approximately 75 kilometers and are considered

the least active strands of the San Jacinto fault zone. The San Jacinto fault zone is approximately 210 kilometers in length with an interval between surface ruptures of approximately 100 and 300 years with a probable magnitude of 6.5 to 7.5.

Liquefaction Potential

Liquefaction is defined as the phenomenon in which a cohesionless soil mass within the upper 50 feet of the ground surface suffers a substantial reduction in its shear strength, due to the development of excess pore pressures. During earthquakes, excess pore pressures in saturated soil deposits may develop as a result of induced cyclic shear stresses, resulting in liquefaction.

Soil liquefaction generally occurs in submerged granular soils and non-plastic silts during or after strong ground shaking. There are several general requirements for liquefaction to occur. They are as follows.

- Soils must be submerged.
- Soils must be primarily granular.
- Soils must be loose to medium-dense.
- Ground motion must be intense.
- Duration of shaking must be sufficient for the soils to lose shear resistance.

According to the County of Riverside General Plan, Elsinore Area Plan, Seismic Hazards Map, the Morrill Canyon Bridge is not located in any liquefaction susceptible designated area. Furthermore, according to the County of Riverside General Plan, REMAP, Seismic Hazards Map, the Strawberry Creek Bridge is located in an area designated as Deep Groundwater with Moderate levels of liquefaction susceptibility.

Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. According to the County of Riverside General Plan, Elsinore Area Plan, the Temescal Wash, Murrieta Creek, San Jacinto River, and Lake Elsinore pose significant flood hazards within the area covered by the Elsinore Area Plan. However, the Morrill Creek Bridge is not within the Lake Elsinore Dam Inundation Area or the Lake Elsinore Special Flood Hazard Area. The Morrill Creek Bridge is identified as being within a Special Flood Hazard Area due to the Morrill Canyon Creek crossing. The Morrill Canyon Bridge is outside and beyond the Temescal Wash, Murrieta Creek, and San Jacinto River inundation areas. According to the County of Riverside General Plan, REMAP, the San Jacinto River and several creeks in the Garner and Anza Valleys in the lowland areas pose flood hazards within the REMAP area. However, the Strawberry Creek Bridge is not located in an area designated as a flood prone area and not within a special flood hazard area. A review of the California Geological Society Tsunami Inundation Map did not include Riverside County or the proposed bridges as within a tsunami inundation area.

2.2.2.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
During construction of the build alternatives, excavated soil would be exposed, increasing the potential for soil erosion. Additionally, during a storm event, unprotected soils including slopes would be subject to erosion. Short-term, temporary impacts related to construction activities could occur along the project limits due to grading and construction of cut and fill slopes related to the bridge replacements at both Morrill Canyon Bridge and Strawberry Creek Bridge. Construction activities may also temporarily disturb soils in work areas and heavy equipment traffic areas.

The temporary effects due to soil erosion within the project areas are discussed in Section 2.2.1, *Water Quality and Storm Water Runoff*. Erosion potential would be addressed through the implementation of standardized measures as part of the project design. These include erosion control BMPs as part of the SWPPP. With implementation of these standardized measures, no short-term or indirect adverse impacts related to soil compaction or erosion would occur during construction of the build alternatives at Morrill Canyon Bridge and Strawberry Creek Bridge.

The proposed project could expose construction workers and the traveling public to potential impacts associated with seismic ground shaking. Compliance with the most current Department procedures regarding seismic design, which is standard practice on all Department projects, is anticipated to prevent any adverse effects related to seismic ground shaking. Conformance with the California Building Code (CBC) as well as adherence to standard engineering practices and the Department's design criteria, would reduce the effects of seismic ground shaking. Therefore, the proposed project would not result in or contribute to seismic related hazards to the degree that would result in a significant impact on construction workers or the traveling public.

No-Build Alternative
Under the No-Build Alternative, no project construction would occur; therefore, no impacts on geology, soils, seismicity, or topography would occur. The No-Build Alternative would not expose construction workers or the traveling public to risks associated with seismic ground shaking.

Permanent

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
The build alternatives are not anticipated to adversely affect geologic or topographic conditions or be affected by fault rupture within the project limits. The proposed project is located in the seismically active southern California region. Design and construction of the project following the Department's current highway and structure seismic design standards would minimize potential impacts. With implementation of these standard measures, no direct or indirect, adverse, long-term impacts on seismic shaking would occur as a result of the build alternatives.

As previously discussed, based on the County of Riverside General Plan, Elsinore Area Plan, Seismic Hazards Map, the Morrill Canyon Bridge is not located in any liquefaction susceptible

designated area, and according to the County of Riverside General Plan, REMAP, Seismic Hazards Map, the Strawberry Creek Bridge is located in an area designated as Deep Groundwater with moderate levels of liquefaction susceptibility. The project would follow the Department's latest design requirements to minimize any potential effects related to liquefaction and seismically induced settlement. With implementation of these standard measures, no direct or indirect, adverse, long-term impacts would occur as a result of the project.

No-Build Alternative
Under the No-Build Alternative, construction of the proposed project would not occur. The existing topography and soils would not be affected by construction activities; however, sedimentation and erosion of existing embankment slopes and exposure to seismic activity and ground shaking could continue.

2.2.2.4 Avoidance, Minimization, and/or Mitigation Measures

To ensure that, during construction, potential effects involving geology, soils, seismicity, and topography are minimized to an acceptable level, the following standard avoidance and minimization measures will be implemented.

GEO-1 The project will implement Caltrans Standard Specifications Sections 13-05 and 21 related to erosion control during construction.

GEO-2 Earthwork will be performed in accordance with the Department's Standard Specifications, Section 19, which require standardized measures related to compacted fill, overexcavation, recompaction, and retaining walls, among other requirements.

GEO-3 Construction will be conducted in accordance with Division III, "Earthwork and Landscape" Section 21-1 through 21-3 of the Department's Standard Specifications, requiring erosion protection and drainage control.

2.2.3 Hazardous Waste/Materials

2.2.3.1 Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, and the Resource Conservation and Recovery Act (RCRA) of 1976. The purpose of CERCLA, often referred to as "Superfund," is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for "cradle to grave" regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992

- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

2.2.3.2 Affected Environment

The primary sources used in the preparation of this section is the November 2020 *Initial Site Assessment (ISA) Checklist*.

Environmental Records Review

The California Department of Toxic Substances Control (DTSC) tracks and identifies sites within known or potential contamination through its EnviroStor database, and the SWRCB tracks and identifies sites that may affect groundwater through its GeoTracker database. The EnviroStor database and GeoTracker database were reviewed and identified the following potential hazardous waste sites near the project site.

EnviroStor:
Near Morrill Canyon Bridge:

- Elsinore Elementary School Annex Project (33550001) (N. Langstaff Street/Poe Street, Lake Elsinore, CA 92530): Potential contaminants of concern include fluoranthene and lead in the

soil. A site cleanup program was initiated and no further action was required as of June 26, 2001.

Near Strawberry Creek Bridge:
No EnviroStor sites were listed near Strawberry Creek Bridge.

GeoTracker:
Near Morrill Canyon Bridge:

- El Cariso Country Store (T0606501128)(32692 Ortega Highway, Lake Elsinore, CA 92530): Identified as a leaking underground storage tank (LUST) cleanup site. Cleanup status indicates the cleanup was completed and the case was closed as of July 22, 2005.
- Los Pinos Forestry Camp (T060502487) (39251 Ortega Highway, San Juan Capistrano, CA 92675): Identified as a LUST cleanup site. Cleanup status indicates the cleanup was completed and the case was closed as of February 28, 2003.

Near Strawberry Creek Bridge:

- Idyllwild WD WWTP (T10000009195)(52335 Apela Drive, Idyllwild, CA 92549): Identified as a cleanup program site with potential contaminants of concern including waste oil, motor oil, hydraulic, and lubricating oil. Cleanup status indicates the cleanup was completed and the case closed as of April 25, 2016.
- Keenwild Ranger Station (T0606500572)(28500 Highway 243, Mountain Center, CA 92561): Identified as a LUST cleanup site with a potential contaminant concern of gasoline. Cleanup status indicates the status as open, with remediation as of May 30, 2012.

According to the ISA Checklist prepared for the project, there are no underground storage tanks, surface tanks, sumps, ponds, drums, basins, transformers, or landfills on the project site at Morrill Canyon Bridge or Strawberry Creek Bridge. No surface staining, oil sheen, odors, or vegetation damage was observed at the bridge sites. The ISA Checklist concluded that both project bridge sites are considered a low risk for having the potential for hazardous waste involvement.

2.2.3.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
Implementation of the build alternatives is not expected to result in the creation of any new health hazards or expose people to potential new health hazards because the proposed project involves the replacement of two bridges and widening of lanes to provide for standard lane widths and the widening of shoulders. No storage of materials or chemicals would occur, and the project is not anticipated to increase the potential hazardous materials in the project area. The ISA Checklist completed for the project determined that the potential for hazardous waste involvement is at a low risk.

Aerially deposited lead (ADL) from the historical use of leaded gasoline exists along roadways throughout California. If encountered, soil with elevated concentrations of lead as a result of ADL on the state highway stem right of way within the project limits will be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic

Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Appropriate health and safety measures will be taken to minimize the exposure of lead during construction of the build alternatives. The project will include a Lead Compliance Plan, testing of the bridges for ADL, lead based paint, and asbestos-containing construction materials. Furthermore, appropriate measures will also be included for removal of yellow or white traffic stripes, treated wood waste, paint, and thermoplastics. Standard specifications will also apply for removal and management of asbestos-containing construction materials in the bridges.

No-Build Alternative
Under the No-Build Alternative, no construction is proposed; therefore, no adverse effects under NEPA or significant impacts under CEQA would occur with respect to hazardous waste and materials.

Permanent

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
Following construction of the proposed project, long-term operations are not expected to result in the creation of any new health hazards or expose people to potential new health hazards. As such, the build alternatives would not result in adverse effects. Permanent impacts (direct or indirect) related to hazardous materials are not anticipated as a result of the build alternatives because operation of the proposed project would not generate, handle, or store hazardous waste.

No-Build Alternative
Under the No-Build Alternative, no improvements would be made to the existing interchange; therefore, no adverse effects under NEPA or significant impacts under CEQA would occur with respect to hazardous waste and materials.

2.2.3.4 Avoidance, Minimization, and/or Mitigation Measures

To ensure potential effects involving hazardous materials/waste during construction are avoided or reduced, the following avoidance, minimization, and/or mitigation measures will be implemented.

HAZ-1 Section 7-1.02K(6)(j)(ii) - Preparation of a lead compliance plan if applicable.

HAZ-2 Section 7-1.02K(6)(j)(iii) – Applies if earth material will be disturbed; and work could result in lead exposure; earth material is not a hazardous waste and does not exceed 320 mg/kg lead; earth material does not require disposal in a permitted landfill.

HAZ-3 Section 14-11.08 – Applies if material containing ADL at regulated concentrations as defined in the ADL Agreement with DTSC is present at the job site and will be excavated, stockpiled, transported, placed within project limits, or disposed of in a landfill.

HAZ-4 Section 14-11.09 – Applies if the project includes minimal disturbance of areas with regulated material containing ADL.

HAZ-5 Section 14-11.12, Specifications for removing yellow traffic stripe and pavement markings with hazardous waste residue.

HAZ-6 Section 14-11.13 – Applies if work will disturb the existing paint system on a bridge.

HAZ-7 Section 14-11.16 – Applies for the removal and management of asbestos-containing construction materials in bridges.

HAZ-8 Section 36-4 - Specifications related to residue containing lead from paint and thermoplastic.

HAZ-9 Section 49-1.03 - Applies if expected difficult pile installation and the management of hazardous waste, contaminated materials, and naturally occurring asbestos, including serpentine rock. This specification applies for all types of pile installation.

HAZ-10 Section 14-9.02 – Applies for the demolition or rehabilitation of a bridge or building requiring notification to the U.S. EPA, California Air Resources Board, APCD, or AQMD to comply with air quality regulations.

HAZ-11 Section 14-11.14 – Applies if the project will generate treated wood waste.

This page intentionally left blank.

2.3 Biological Environment

2.3.1 Natural Communities

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

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

2.3.1.1 Affected Environment

Information used in this section is based on the *Natural Environment Study* (NES) dated November 2020 prepared for the project.

The project limits include the Morrill Canyon Bridge located 1,946 feet amsl near San Juan Hot Springs on the west and Strawberry Creek Bridge located 2,988 feet amsl near Idyllwild on the east. Land uses surrounding both project bridges include open space within the U.S. Forest Service. The Morrill Canyon Bridge is bordered by the Trabuco Ranger District to the north and sporadic rural residential to the south. The Strawberry Creek Bridge is near the San Jacinto Ranger District. Soils in the two bridge areas consist of Capistrano Sandy Loam, Cieneba Rocky Sandy Loam, and Soboba-Hanford Family Association. The Project Impact Area (PIA) is limited to the construction footprint associated with the Morrill Canyon Bridge and Strawberry Creek Bridge that comprise this project. The Biological Study Area (BSA) includes the construction footprint associated with the two bridges plus a 500-foot buffer.

The Morrill Canyon Bridge is built over Morrill Canyon Creek, a jurisdictional feature, with Freshwater Forested/Shrub Wetland habitat that is classified as a Palustrine System, Forested Class, and Temporary Flooded Water Regime (PFOA). Morrill Canyon Creek is dominated by Coast live oak (*Quercus agrifolia*) riparian forest, with intermittent areas of southern willow scrub and small thickets of mule fat scrub. Common and representative species within these communities include Coast live oak, arroyo willow (*Salix lasiolepis*), Goodding's willow (*Salix gooddingii*), California sycamore (*Platanus racemosa*), and mule fat (*Baccharis salicifolia*).

The Strawberry Creek Bridge is built over Strawberry Creek, a jurisdictional feature, with Freshwater Forested/Shrub Wetland habitat that is classified as a PFOA. Strawberry Creek is steep and rocky and is dominated by coast live oaks on the upland banks with white alder (*Alnus rhombifolia*), California sycamore, and willows dominating in the active channel. Habitat upstream of the bridge was damaged by the 2018 Cranston Fire, but not destroyed.

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP) is designed to meet the challenge of rapid urbanization by providing for the conservation of significant habitat and the preservation of endangered, threatened, and rare species in a coordinated and efficient process. The WRCMSHCP allows participating jurisdictions to authorize "take permits" of both plant and wildlife Covered Species Adequately Conversed in exchange for the assembly and management of a coordinated WRCMSHCP Conservation Area. Both project bridges and their corresponding BSAs are located within the WRCMSHCP.

Plant Communities

Four Natural Communities of Concern have the potential to occur within the region surrounding the BSA in which the two bridges are located. They include Canyon Live Oak Ravine Forest, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, and Southern Sycamore Alder Riparian Woodland. Based on the California Natural Diversity Database (CNDDB), the Southern Sycamore Alder Riparian Woodland is presumed extant within the Strawberry Creek Bridge BSA.

The Morrill Canyon Creek is primarily dominated by Southern Coast Live Oak Riparian Forest, with intermittent areas of southern willow scrub and small thickets of mule fat scrub. Common species present within these communities include coast live oak, arroyo willow (*Salix lasiolepis*), Goodding's willow (*Salix gooddingii*), California sycamore (*Plantanus racemose*), and mule fat.

Strawberry Creek is dominated by coast live oak on the upland banks with Southern Sycamore Alder Riparian Woodland, composed of white alder (*Alnus rhombifolia*), California sycamore, and willows in the active channel area.

The Canyon Live Oak Ravine Forest and Southern Cottonwood Willow Riparian Forest were not present in the BSA during surveys conducted for the project.

Habitat Connectivity

Habitat linkages provide links between large undeveloped habitat areas that have become separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature, with adequate width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species but inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. In addition, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

Transportation facilities, particularly freeways, constitute barriers to habitat connectivity. The Morrill Canyon Bridge and Strawberry Creek Bridge are not within or located directly adjacent to multiple species habitat conservation plan (MSHCP) Criteria Cells and thus, will not contribute to Criteria Cell connectivity and conservation objectives.

2.3.1.2 Environmental Consequences

Temporary

Clearing, grubbing, and bridge pier construction are anticipated to directly impact Southern Coast Live Oak Riparian Forest within the Morrill Canyon Bridge PIA and Southern Sycamore Alder Riparian woodland in the Strawberry Creek Bridge PIA. Temporary impacts would generally be caused by access for construction equipment and the grading limits at both bridge locations.

Morrill Canyon Bridge Alternative M1
Implementation of Morrill Canyon Bridge Alternative M1 would result in 0.973 acre of temporary disturbance within the project footprint area. This includes 0.116 acre of temporary disturbance to chaparral vegetation community, and 0.857 acre of temporary disturbance to woodlands and forest vegetation communities. There is no temporary disturbance to riparian vegetation communities proposed to be impacted under this alternative.

Table 2.3-1 summarizes the temporary disturbance acreages at Morrill Canyon Bridge.

Table 2.3-1. Morrill Canyon Bridge Temporary Disturbance

	Chaparral (acre)	Woodland/Forest (acre)	Riparian (acre)
Alternative M1 Temporary	0.116	0.857	0

Source: Natural Environment Study, 2020.

Strawberry Creek Bridge Alternatives S1 and S3
Implementation of Alternative S1 at the Strawberry Creek Bridge site would result in 0.501 acre of temporary disturbance within the project footprint. This includes 0.251 acre of temporary disturbance to chaparral vegetation community and 0.192 acre of temporary disturbance to riparian vegetation communities and 0.059 acre of temporary disturbance to upland woodlands and forest vegetation communities.

Implementation of Alternative S3 at the Strawberry Creek Bridge site would result in 0.619 acre of temporary disturbance within the project footprint. This includes 0.281 acre of temporary disturbance to chaparral vegetation community, 0.216 acre of temporary disturbance to riparian vegetation communities and 0.122 acre of temporary disturbance to upland woodlands and forest vegetation communities.

Table 2.3-2 summarizes the temporary disturbance acreages at Strawberry Creek Bridge.

Table 2.3-2. Strawberry Creek Bridge Temporary Disturbance

	Chaparral (acre)	Upland Woodlands/Forest	Riparian
Alternative S1 Temporary	0.251	0.059	0.192
Alternative S3 Temporary	0.281	0.122	0.216

Source: Natural Environment Study, 2020.

No-Build Alternative
If the project is not constructed, it will not cause any impacts on natural communities of concern within the BSA, including depleted natural communities/habitats of concern.

Habitat Connectivity
Based on the NES prepared for the project, the majority of the Strawberry Creek Bridge PIA consists of moderate wildlife connectivity, and query results from the Caltrans Connectivity Tool indicate that the Strawberry Creek Bridge BSA is within an area identified as an Essential Habitat Connectivity Area (Santa Rosa Mountains – Cahuilla Mountain/Rouse Ridge) in the California Essential Habitat Connectivity Project. Based on reviews of the data layer "Wildlife Movement Barrier Priorities-CDFW-2020," neither the Morrill Canyon Bridge or Strawberry Creek Bridge are identified as wildlife movement barrier priorities. Work associated with the two bridge replacements may temporarily impact wildlife movement due to construction disturbance and noise. However, neither the Morrill Canyon Bridge nor the Strawberry Creek Bridge are within or located directly adjacent to any Criteria Cell and, as such, will not contribute to any connectivity to the Criteria Cells or its conservation objectives.

Permanent

Morrill Canyon Bridge Alternative M1
Implementation of Alternative M1 at Morrill Canyon Bridge would result in 0.283 acre of permanent disturbance within the project footprint. This includes 0.010 acre of permanent disturbance to chaparral vegetation community, 0.173 acre of permanent disturbance to woodlands and forest vegetation communities, and 0.1 acre of permanent impact to the disturbed habitat (Tenaja Truck Trail) that will be paved. There is no permanent disturbance to riparian vegetation communities proposed to be impacted under this alternative.

Table 2.3-3 summarizes the permanent disturbance acreages at Morrill Canyon Bridge.

Table 2.3-3. Morrill Canyon Bridge Permanent Disturbance

	Chaparral (acre)	Woodlands/Forest (acre)	Riparian acre)
Alternative M1 Permanent	0.010	0.173	0

Source: Natural Environment Study, 2020.

Strawberry Creek Bridge Alternatives S1 and S3
Implementation of Alternative S1 at Strawberry Creek Bridge would result in 0.232 acre of permanent disturbance within the project footprint. This includes 0.086 acre of permanent disturbance to chaparral vegetation community, 0.115 acre of permanent disturbance to riparian vegetation communities, and 0.031 acre of permanent disturbance to upland woodlands and forest vegetation communities.

Implementation of Alternative S3 at Strawberry Creek Bridge would result in a total of 0.220 acre of permanent disturbance within the proposed footprint. This includes 0.092 acre of permanent disturbance to chaparral vegetation community, 0.100 acre of permanent disturbance to riparian vegetation communities, and 0.028 acre of permanent disturbance to upland woodlands and forest vegetation communities.

Table 2.3-4 summarizes the permanent disturbance acreages at Strawberry Creek Bridge.

Table 2.3-4. Strawberry Creek Bridge Permanent Disturbance

	Chaparral (acre)	Upland Woodlands/Forest (acre)	Riparian (acre)
Alternative S1 Permanent	0.086	0.031	0.115
Alternative S3 Permanent	0.092	0.028	0.100

Source: Natural Environment Study, 2020.

No-Build Alternative

If the project is not constructed, it will not cause any impacts on natural communities of concern within the BSA, including depleted natural communities/habitats of concern.

Habitat Connectivity

As indicated in the NES, the project would pose no risk of permanently decreasing the existing habitat connectivity at either bridge location.

WRCMSHCP

The project bridges are located within the WRCMSHCP. In compliance with the WRCMSHCP, habitat assessments were performed in the BSA for both bridge locations. No narrow endemic plants (NEPS) were detected within the BSAs, and as such, the project has fulfilled MSHCP requirements for those species by conducting the surveys. The project would affect natural vegetation communities for Southern Coast Live Oak Riparian Forest and Southern Sycamore Alder Riparian Woodland. To minimize and avoid potential impacts on natural communities potentially occurring near the project site, the project will implement all applicable Caltrans Best Management Practices (BMPs) and 2018 Standard Specifications (or latest version).

2.3.1.3 Avoidance, Minimization, and/or Mitigation Measures

Measures to avoid indirect, temporary impacts from human activity during construction will be required if the California Department of Fish and Wildlife (CDFW) determined that the vegetation outside of the bed and bank feature is under CDFW jurisdiction. To minimize and avoid potential impacts on Natural Communities of Concern potentially occurring near the project site, the project will implement all applicable Caltrans BMPs and 2018 Standard Specifications (or latest version) including equipment staging, storing, and borrow sites, worker environmental awareness training (WEAP), biological monitor, and flagging and fencing.

BIO-1 Equipment Staging, Storing, and Borrow Sites: Equipment, vehicles, and materials staged and stored in Caltrans right of way must be sited in previously paved or previously disturbed areas only and must avoid native vegetation. Approval of additional staging, storing or borrow sites must require the Caltrans Biologist to analyze project impacts and provide authorization.

BIO-6 Worker Environmental Awareness Program (WEAP): A qualified contractor-supplied biologist must present a biological resource information program/WEAP prior to ground-disturbing activities to all personnel that must be present within the project limits for longer than 30 minutes at any given time.

BIO-7 Biological Monitor: The qualified contractor-supplied biologist must monitor project-related activities to ensure that measures (including the construction guidelines in WRCMSHCP Volume 1 Section 7.5.3 and the Standard Best Management Practices in WRCMSHCP Appendix C) are being implemented and documented.

BIO-15 Flagging and Fencing: Within one week prior to construction a pre-construction survey must be conducted for special status plant species and must be flagged by the Contractor-suppled biologist for visual identification to construction personnel for work avoidance. Portions of the BSA that feature multiple plants in a single location must be fenced with environmentally sensitive area temporary fencing.

2.3.2 Wetlands and Other Waters

2.3.2.1 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 (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

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

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

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with

the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

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

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

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

2.3.2.2 Affected Environment

Information used in this section is based on the NES dated November 2020 prepared for the project.

Prior to conducting the jurisdictional delineation fieldwork in the Morrill Canyon Bridge and Strawberry Creek Bridge BSAs, literature and other materials were reviewed including aerial photographs of the bridge sites to determine the potential locations of jurisdictional waters or wetlands, USGS topographic maps to determine the presence of any blue-line drainages and other mapped water features, U.S. Department of Agriculture soil mapping data, and other U.S.

Fish and Wildlife Service (USFWS) maps to identify areas mapped as wetland features. The surveys conducted for the project consisted of walking the entire survey area and identifying potential jurisdictional water features. Visual observations of vegetation types and changes in hydrology and culvert locations were used to locate areas for evaluation.

The Morrill Canyon Bridge is built over a jurisdictional feature with Freshwater Forested/Shrub Wetland habitat that is classified as a PFOA. Morrill Canyon Creek is dominated by coast live oak riparian forest, with intermittent areas of southern willow scrub and small thickets of mule fat scrub. During field surveys the Morrill Canyon Creek was observed with surface water. The Strawberry Creek Bridge is built over a jurisdictional feature with Freshwater Forested/Shrub Wetland habitat that is classified as PFOA. Strawberry Creek is steep and rocky and is dominated by coast live oaks on the upland banks with white alder (*Alnus rhombifolia*), California sycamore, and willows dominating in the active channel. During field surveys conducted for the project, the Strawberry Creek was observed with surface water.

The project area contains four drainages including Morrill Canyon Creek (Drainage 1) and two unnamed small tributaries (Drainage 2 and 3) in the Morrill Canyon Bridge PIA with live oak habitat, and Strawberry Creek with alder sycamore riparian habitat. The three Morrill Canyon drainages are within the Aliso-San Onofre Watershed and flow downstream to the west and eventually into the Pacific Ocean. Strawberry Creek is within the San Jacinto Watershed and flows south and then west from the site into the San Jacinto River.

The Morrill Canyon BSA contains *Quercus agrifolia* Forest & Woodland Alliance (Coast live oak woodland and forest), with *Adenostoma fasciculatum* Shrubland Alliance (Chamise chaparral) observed on the slopes outside of the proposed work area. The dominant tree species observed was coast live oak (*Quercus agrifolia*) with some small patches of Goodling's black willow (*Salix goodingii*) and California sycamore (*Platanus racemose*) observed with the channel of Drainage 1. A small area of mulefat were also observed along Drainages 1 and 2.The dominant understory shrub observed was poison oak (*Toxicodendron diversilobum*) and common snowberry (*Symphoricarpos albus*). Herbaceous riparian vegetation observed within the creek and on the banks include watercress (*Nasturtium officinale*), fringed willow-herb (*Epilobium ciliatum*), seep monkeyflower (*Erythranthe guttata*), tall flats edge (*Cyperus eragrostis*), umbrella plant (*Cyperus involucratus*), and Mexican rush (*Juncus mexicanus*).

The Strawberry Creek BSA along the creek contains *Alnus rhombifolia* Forest & Woodland Alliance (White alder groves), with *Adenostoma fasciculatum* Shrubland Alliance (Chamise chaparral) observed on the slopes outside of the proposed work area. The dominant tree species observed were white alder (*Alnus rhombifolia*), California sycamore within the channel, and interior live oak (*Quercus wislizeni*) on the outside of the riparian area. The area north of SR-74 had burned recently due to wildfires and most trees were not identifiable. A small area with some patches of mule fat (*Baccharis salicifolia*) was observed along Drainage 1 and 2. The dominant understory shrub observed was poison oak (*Toxicodendron diversilobum*) and common snowberry (*Symphoricarpos albus*). Herbaceous riparian vegetation observed within the creek and on the banks included watercress (*Nasturtium officinale*), fringed willow-herb (*Epilobium ciliatum*), seep monkeyflower (*Erythranthe guttata*), tall flats edge (*Cyperus eragrostis*), umbrella plant (*Cyperus involucratus*), and cattail (*Typha sp*.), and Mexican rush (*Juncus mexicanus*). Soil pits were investigated within the channel and adjacent to the active drainage.

The soil pits showed saturated soils consisting mainly of course sand and silt; however, there were no wetland indicators present.

2.3.2.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
For the Morrill Canyon Bridge and Strawberry Creek Bridge PIAs, temporary impacts will be caused by construction access. The following tables summarize the proposed impacts on jurisdictional waters for each of the alternatives for Morrill Canyon Bridge and Strawberry Creek Bridge.

Table 2.3-5. Morrill Canyon Bridge Alternative M1 Impacts on Jurisdictional Areas

Drainage	USACE/ RWQCB Perm Impact (acres)	USACE/ RWQB Perm Impact (feet)	USACE/ RWQCB Temp Impact (acres)	USACE/ RWQCB Temp Impact (feet)	CDFW Perm Impact (acres)	CDFW Perm Impact (feet)	CDFW Temp Impact (acres)	CDFW Temp Impact (feet)	Classification
Morrill Creek (D1)	0.003	26	0.011	64	0.021	26	0.066	64	Non-Section 10-Non Wetland
D2	0	0	0	0	0	0	0	0	Non-Section 10-Non Wetland
D3	0	0	0	0	0	0	0	0	Non-Section 10-Non Wetland
Total	0.003	26	0.011	64	0.021	26	0.066	64	

Source: Natural Environment Study, 2020.
Notes: USACE/RWQCB = U.S. Army Corps of Engineers/Regional Water Quality Control Board.
CDFW = California Department of Fish and Wildlife; D1 = Drainage 1; D2 = Drainage 2; D3 = Drainage 3.

Table 2.3-6. Strawberry Creek Bridge Alternative S1 Impacts on Jurisdictional Areas

Drainage	USACE/ RWQCB Perm Impact (acres)	USACE/ RWQB Perm Impact (feet)	USACE/ RWQCB Temp Impact (acres)	USACE/ RWQCB Temp Impact (feet)	CDFW Perm Impact (acres)	CDFW Perm Impact (feet)	CDFW Temp Impact (acres)	CDFW Temp Impact (feet)	Classification
Strawberry Creek	0.039	25	0.07	47	0.1	25	0.15	47	Non-Section 10-Non Wetland

Source: Natural Environment Study, 2020.
Notes: USACE/RWQCB = U.S. Army Corps of Engineers/Regional Water Quality Control Board.
CDFW = California Department of Fish and Wildlife; D1 = Drainage 1; D2 = Drainage 2; D3 = Drainage 3.

Table 2.3-7. Strawberry Creek Bridge Alternative S3 Impacts on Jurisdictional Areas

Drainage	USACE/ RWQCB Perm Impact (acres)	USACE/ RWQB Perm Impact (feet)	USACE/ RWQCB Temp Impact (acres)	USACE/ RWQCB Temp Impact (feet)	CDFW Perm Impact (acres)	CDFW Perm Impact (feet)	CDFW Temp Impact (acres)	CDFW Temp Impact (feet)	Classification
Strawberry Creek	0.03	21	0. 1	57	0.08	21	0.2	57	Non-Section 10-Non Wetland

Source: Natural Environment Study, 2020.
Notes: USACE/RWQCB = U.S. Army Corps of Engineers/Regional Water Quality Control Board.
CDFW = California Department of Fish and Wildlife; D1 = Drainage 1; D2 = Drainage 2; D3 = Drainage 3.

Based on the preliminary design plans for Morrill Canyon Bridge Alternative M1, approximately 0.011 acre of temporary impact on USACE/RWQCB jurisdictional waters (non-wetlands waters) on Morrill Creek/Drainage 1 would occur. No temporary USACE/RWQCB impacts would occur on Drainage 2 or 3. In addition, Morrill Canyon Bridge Alternative M1would result in approximately 0.066 acre of temporary impacts on CDFW jurisdictional areas. No CDFW temporary impacts would occur on Drainage 2 or 3.

Based on the preliminary design plans for Strawberry Creek Bridge Alternative S1, approximately 0.07 acre of temporary impact on USACE/RWQCB jurisdictional waters (non-wetlands waters) on Strawberry Creek would occur. In addition, Strawberry Creek Bridge Alternative S1 would result in approximately 0.15 acre of temporary impacts on CDFW jurisdictional areas.

Based on the preliminary design plans for Strawberry Creek Bridge Alternative S3, approximately 0.01 acre of temporary impact on USACE/RWQB jurisdictional waters (non-wetlands waters) on Strawberry Creek would occur. In addition, Strawberry Creek Bridge Alternative S3 would result in approximately 0.19 acre of temporary impacts on CDFW jurisdictional areas.

A Section 404 Clean Water Act permit may be required with the two most common types of permits issued by the USACE being a nationwide permit (NWP) or an individual permit (IP). NWPs are general permits for specific categories of activities that result in minimal impacts on aquatic resources, with NWP 14 being used specifically for linear transportation projects. The proposed project would likely qualify under a NWP 14 and would require a preconstruction notification. The Morrill Canyon Bridge occurs in the San Diego RWQCB (Region 9), and the Strawberry Creek Bridge occurs in the Santa Ana RWQCB (Region 8). Pursuant to Section 1600 of the Fish and Game Code, a Lake and Streambed Alteration Agreement would be required from the CDFW. Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into waters of the U.S. does not violate state water quality standards. The project will mitigate for temporary impacts through restoration and enhancement of onsite riparian/riverine areas. Compensatory mitigation required by the RWQCB and CDFW will be determined in coordination with CDFW and RWQCB during the 1602 and 401 permitting process. The RWQCB also regulates impacts on waters of the state under the Porter-Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge order, or Waste Discharge Requirements, depending upon the level of impact and the properties of the waterway.

No-Build Alternative

If the project is not constructed, project-related impacts on federal and state jurisdictional waters and wetlands would not occur.

Permanent

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3

Based on review of the preliminary design plans for Morrill Canyon Bridge Alternative M1, approximately 0.003 acre of permanent impacts on USACE/RWQCB jurisdictional waters (non-

wetland waters) would occur. In addition, Morrill Canyon Bridge Alternative M1would result in approximately 0.021 acre of permanent impacts on CDFW jurisdictional areas.

Based on review of the preliminary design plans for Strawberry Creek Bridge Alternative S1, approximately 0.039 acre of permanent impacts on USACE/RWQCB jurisdictional waters (non-wetland waters) would occur. In addition, Strawberry Creek Bridge Alternative S1 would result in approximately 0.1 acre of permanent impacts on CDFW jurisdictional areas.

Based on review of the preliminary design plans for Strawberry Creek Bridge Alternative S3, approximately 0.03 acre of permanent impacts on USACE/RWQCB jurisdictional waters (non-wetland waters) would occur. In addition, Strawberry Creek Bridge Alternative S3 would result in approximately 0.08 acre of permanent impacts on CDFW jurisdictional areas.

Under Section 401 of the CWA, the RWQCB must certify the discharge of dredged or fill materials into waters of the U.S. does not violate state water quality standards. Permanent impacts on riparian/riverine habitat and federal/state jurisdictional waters are proposed to be mitigated by purchase of creation credit from a bank/in-lieu fee or the acquisition of lands for conservation. For either option, the mitigation will be done prior to project impacts, and Caltrans will coordinate with the Wildlife Agencies on which mitigation option is optimal/available based on project timelines.

No-Build Alternative
If the project is not constructed, project-related impacts on federal and state jurisdictional waters and wetlands would not occur. Furthermore, maintenance activities would continue to occur.

2.3.2.4 Avoidance, Minimization, and/or Mitigation Measures

Any specific avoidance and minimization efforts will be identified during the regulatory permitting process. Construction activities will be limited to the smallest footprint possible within drainage features, and fencing will be erected along the construction footprint to avoid inadvertent disturbances to additional area within the drainage. In addition to the BMPs in the Storm Water Pollution Prevention Plan and 2018 Standard Specifications (or latest version), the following avoidance, and minimization measures will be implemented to minimize effects during construction: BIO-1, BIO-6, and BIO-7 as listed in Section 2.3.1.3.

2.3.3 Plant Species

2.3.3.1 Regulatory Setting

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

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

The regulatory requirements for FESA can be found at 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

2.3.3.2 Affected Environment

Information used in this section is based on the November 2020 NES prepared for the project.

The USFWS IPaC list, CNDDB inventory database, and CNPS online databases indicate that 32 special-status plant species and one special-status moss species (California screw moss) have the potential to occur within the region surrounding the BSA.

The following table summarizes the listed plant species, candidate species, special-status species, and critical habitat potentially occurring or known to occur in the area in which the project area is located.

Table 2.3-8. Plant Species

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitats	Habitat Present/ Absent	Rationale
Tortula californica	California screw moss	None/None	1B.2	Chenopod scrub, valley & foothill grassland	A	No suitable habitat present in Morrill Canyon BSA
Abronia villosa var. *aurita*	Chaparral sand-verbena	USFS_S/ None	1B.1	Chaparral, coastal scrub, Desert dunes. Sandy areas	A	No suitable habitat present in Strawberry Creek BSA
Arctostaphylos rainbowensis	Rainbow manzanita	USFS_S/ None	1B.1	Chaparral, ultramafic	A	No suitable habitat in Morrill Canyon BSA
Astragalus pachypus var. *jaegeri*	Jaeger's milk-vetch	USFS_S/ None	1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	HP	Suitable habitat present in Strawberry Creek BSA but not in PIA
Brodiaea filifolia	Thread-leaved brodiaea	FT/SE	1B.1	Chaparral (openings), cismontane woodland, coastal scrub; usually associated with annual grassland and vernal pools; often surrounded by	A	No suitable habitat present in Morrill Canyon BSA

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitats	Habitat Present/ Absent	Rationale
				shrubland habitats; occurs in openings on clay soils		
Brodiaea santarosae	Santa Rosa Basalt brodiaea	None/ USFS_S	1B.2	Valley & foothill grassland, Santa Rosa Basalt	A	No Suitable habitat present in Morrill Canyon BSA
Calochortus palmeri var. *munzii*	San Jacinto mariposa-lily	USFS_S/ None	1B.2	Chaparral, Lower montane coniferous forest, Meadow & seep. Seen in open Jeffrey pine forest as well as in chaparral	HP	Suitable habitat present in Strawberry Creek BSA
Calochortus plummerae	Plummer's mariposa-lily	None/None	4.2	Chaparral, Cismontane woodland, Coastal scrub, lower montane coniferous forest. Valley and foothill grassland	HP, O	Suitable habitat present in Strawberry Creek BSA. Species detected outside the BSA during 2020 surveys
Chorizanthe parryi var. *parryi*	Parry's spineflower	USFS_S/ None	1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	HP	Suitable habitat present in Strawberry Creek BSA
Chorizanthe polygonoides var. *longispina*	Long spined spineflower	None/none	1B.2	Chaparral, coastal scrub, meadow and seep, ultramafic, valley and foothill grassland, vernal pool	A	No suitable habitat present in Morrill Canyon BSA
Chorizanthe xanti var. *leucotheca*	White-bracted spineflower	USFS_S/ None	1B.2	Coastal scrub, Mojavean desert scrub, pinon & juniper woodlands. Sandy or gravelly places	A	No suitable habitat present in Strawberry Creek BSA
Clinopodium chandleri	San Miguel savory	USFS_S/ None	1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, ultramafic, valley and foothill grassland, rocky, gabbroic or metavolcanic substrate	HP	Suitable habitat present in the Morrill Canyon BSA
Comari-staphylis diversifolia ssp. *diversifolia*	Summer holly	None/ None	1B.2	Chaparral, cismontane woodland	HP	Suitable habitat present in Morrill Canyon BSA
Deinandra mohavensis	Mojave tarplant	USFS_S/ SE	1B.3	Chaparral, coastal scrub, riparian scrub. Low sand bars in river bed	HP	Suitable habitat present in Strawberry Creek BSA

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitats	Habitat Present/ Absent	Rationale
Dodeclhema leptoceras	Slender-horned spineflower	FE/SE	1B.1	Chaparral, cismontane woodland, coastal scrub	A	No suitable habitat present in Strawberry Creek BSA
Dudleya multicaulis	Many-stemmed dudleya	USFS_S/ None	1B.2	Chaparral, coastal scrub, valley and foothill grassland, in heavy, often clayey soils or grassy slopes	A	No suitable habitat in the Morrill Canyon BSA
Dudleya viscida	Sticky dudleya	None/None	1B.2	Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, on north and south facing cliffs and banks	A	No suitable habitat present in Morrill Canyon BSA
Baccharis vanessae	Encinitas baccharis	FT/CE	1B.1	Chaparral	A	No suitable habitat present in Morrill Canyon BSA
Galium angustifolium ssp. *jacinticum*	San Jacinto Mountains bedstraw	USFS_S/None	1B.3	Lower montane coniferous forest. Open mixed forest	A	No suitable habitat present in Strawberry Creek BSA
Galium californicum ssp. *primum*	Alvin Meadow bedstraw	USFS_S/ None	1B.2	Chaparral, lower montane coniferous forest	A	No suitable habitat present in Strawberry Creek BSA
Horkelia cuneate var. *puberula*	Mesa horkelia	USFS_S/ None	1B.1	Chaparral, cismontane woodland, coastal scrub, sandy or gravelly sites	HP	Suitable habitat present in Morrill Canyon BSA
Lilium parryi	Lemon lily	USFS_S/ None	1B.2	Lower montane coniferous forest, meadow and seep, riparian forest, upper montane coniferous forest	A	No suitable habitat present in Morrill Canyon BSA
Monardella hypoleuca ssp. *intermedia*	Intermediate monardella	None/None	1B.3	Chaparral, cismontane woodland, lower montane coniferous forest, in steep brushy areas	HP	Suitable habitat present in the Morrill Canyon BSA
Monardella macrantha ssp. hallii	Hall's monardella	USFS_S/ None	1B.3	Broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley foothill grassland	A	No suitable habitat in Morrill Canyon BSA
Nolina cismontane	Chaparral nolina	USFS_S/ None	1B.2	Chaparral, coastal scrub, ultramafic	A	No suitable habitat present

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitats	Habitat Present/ Absent	Rationale
						in Morrill Canyon BSA
Penstemon californicus	California beardtongue	USFS_S/ None	1B.2	Chaparral, lower montane coniferous forest, pinon and juniper woodlands. Stony slopes and shrubby openings	HP	Suitable habitat present in Strawberry Creek BSA
Pseudo-gnaphalium leucocephalum	White rabbit-tobacco	None/None	2B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, sandy gravelly sites	A	No suitable habitat present in Morrill Canyon BSA
Saltugilia latimeri	Latimer's woodland-gilia	None/None	1B.2	Chaparral, limestone, mojavean desert scrub, pinon and juniper woodlands; rocky or sandy substrate sometimes in washes	A	No suitable habitat present in Strawberry Creek BSA
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE	1B.1	Coastal scrub, valley and foothill grassland, vernal pools	A	No suitable habitat present in Morrill Canyon BSA
Scutellaria bolanderi ssp. *austromontana*	Southern mountains skullcap	USFS_S/ None	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest; in gravelly soils on streambanks or in mesic sites	HP	Suitable habitat present in Strawberry Creek BSA and Morrill Canyon BSA
Navarretia fossalis	Spreading navarretia	FT/None	1B.1	Chenopod scrub, marshes and swamps (assorted shallow freshwater)	A	No suitable habitat present in Morrill Canyon BSA
Tetracoccus dioicus	Parry's tetracoccus	USFS_S/ None	1B.2	Chaparral, coastal scrub, ultramafic, stony, decomposed gabbro soil	A	No suitable habitat present in Morrill Canyon BSA
Viguiera purisimae	La Purisima viguiera	None/ None	2B.3	Chaparral, coastal bluff scrub, dry, rocky places in open shrubland	A	No suitable habitat present in the Morrill Canyon BSA

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

During the surveys conducted for the project, no narrow endemic plant species (NEPS) or any other special-status plant species were detected within the plant survey areas. Habitat suitable for

the following species may be present within the Morrill Canyon BSA: San Miguel savory, summer holly, mesa horkelia, intermediate monardella, and southern mountains skullcap. Habitat suitable for Jaeger's milk-vetch may be present within the Morrill Canyon BSA but not the PIA. Habitat suitable for the following species may be present within the Strawberry Creek BSA: San Jacinto mariposa-lily, Plummer's mariposa-lily, Parry's spineflower, white-bracted spineflower, Mojave tarplant, California beardtongue, and southern mountains skullcap.

2.3.3.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3
Development of the proposed project has the potential to result in indirect impacts on special-status plant species that may occur within habitats surrounding the BSA; such impacts could stem from fugitive dust or the spread of non-native seeds. With implementation of avoidance and minimization measures described below, the proposed project would not result in indirect impacts on special-status plant species. Short-term construction impacts would be considered less than significant under CEQA and not adverse under NEPA.

No-Build Alternative
If the project is not constructed, the No-Build Alternative would not cause any impacts on non-listed special-status species.

Permanent

Morrill Canyon Bridge Alternative M1, and Strawberry Creek Bridge Alternatives S1 and S3
The project has the potential to impact San Miguel savory, summer holly, mesa horkelia, intermediate monardella, and southern mountains skullcap for which suitable habitat is present within the Morrill Canyon BSA; and San Jacinto mariposa-lily, Plummer's mariposa-lily, Parry's spineflower, white-bracted spineflower, Mojave tarplant, California beardtongue, and southern mountains skullcap for which suitable habitat is present within the Strawberry Creek BSA. To ensure that the project will not impact special-status plant species with suitable habitat present in the BSA, avoidance and minimization measure will be implemented.

No-Build Alternative
If the project is not constructed, the No-Build Alternative would not cause any impacts on non-listed special-status species.

2.3.3.4 Avoidance, Minimization, and/or Mitigation Measures

To ensure that the project will not impact (i.e., clear and grub) special-status plant species with suitable habitat present in the BSA, avoidance and minimization measures will be implemented. These measures will ensure that the project minimizes impacts on suitable habitat for the special-status plant species. These measures include BIO-1, BIO-6, BIO-7 and the following:

BIO-15 Flagging and Fencing: Within one week prior to construction a pre-construction survey must be conducted for special status plant species and must be flagged by the Contractor-supplied biologist for visual identification to construction personnel for

work avoidance. Portions of the BSA that feature multiple plants in a single location must be fenced with environmentally sensitive area temporary fencing.

BIO-16 Rare Plant Translocation: If a special status plant species are found within the work area and cannot be fenced but can survive transplantation, the Contractor-supplied biologist must contact the Caltrans Biologist to determine the time and suitable translocation area for the plant species to be moved. Additional requirements and actions must be determined at the time in which such situation occurs.

2.3.4 Animal Species

2.3.4.1 Regulatory Setting

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

2.3.4.2 Affected Environment

Information used in this section is based on the August 2020 NES prepared for the project.

Avian

Four special-status avian species have the potential to occur within the project BSAs based on wildlife database queries. These species include black swift, coastal California gnatcatcher, southwestern willow flycatcher, and least Bell's vireo. During riparian bird surveys conducted for the project, least Bell's vireo and southwestern willow flycatchers were not detected even though suitable habitat was present in the BSAs. Golden eagle, oak titmouse, Lawrence's

goldfinch, southern California rufous-crowned sparrow, Costa's hummingbird, and yellow warbler were detected in the BSAs. Furthermore, habitat may be present within the BSAs, however, not within the PIAs for black swift. Habitat is not present within the BSAs for coastal California gnatcatcher.

Amphibians

Four state and/or federal special-status amphibian species—the arroyo toad, southern mountain yellow-legged frog, western spadefoot, and Coast Range newt—have the potential to occur within the region surrounding the BSAs, based on wildlife database queries in the project area. Per the CNDDB, southern mountain yellow-legged frog was documented in the Strawberry Creek Bridge BSA in 1966, but based on 2002 surveys, this species occurrence is possibly extirpated. During more recent surveys in 2020, surveys were conducted for arroyo toad in the Morrill Canyon Bridge BSA and for southern mountain yellow-legged frog in the Strawberry Creek Bridge BSA. No southern mountain yellow-legged frogs were detected at either survey area. Two adult arroyo toads were detected in the buffer survey area for the Morrill Canyon Bridge site on two occasions. Coast Range newts were found associated with the existing Morrill Canyon Stream bridge crossing, both under and immediately adjacent to the existing bridge, on three separate occasions.

Reptiles

Seven state and/or federal special-status reptile species have the potential to occur within the region surrounding the BSA, based on wildlife database queries conducted for the project site: southern California legless lizard, orange-throated whiptail, southern rubber boa, red-diamond rattlesnake, western pond turtle, coast horned lizard, and two-striped garter snake. No special-status reptiles were observed during surveys conducted in 2020.

Mammals

Four state and/or federal special-status mammal species have the potential to occur within the region surrounding the BSA, based on the wildlife database queries conducted for the project: San Bernardino kangaroo rat, Stephens' kangaroo rat, southern grasshopper mouse, and Los Angeles pocket mouse. Although the Morrill Canyon Creek Bridge and the Strawberry Creek Bridge do not have any crevices or cavity features that could be used by bats for day roosting, there is suitable night roosting habitat on the underside of these bridges. In addition, suitable day-roosting habitat for bats is present in the foliage, beneath exfoliating bark, or in crevices and hollows of the mature trees and snags present within the survey areas for both bridges. Bat species that may occur in the BSAs include pallid bat, big brown bat, California myotis, Yuma myotis, long-legged myotic, western long-eared myotis, and fringed myotis.

During the Morrill Canyon Creek Bridge nighttime emergence surveys, a single big brown bat (or possibly pallid bat) and a single myotis (Yuma myotis or California myotis) emerged from one of the trees, identified as having potential to house maternity colonies of bats. No other bats were observed emerging from any of the other trees surveyed. A high level of bat activity was observed shortly after sunset within the northern portion of the survey area of Morrill Canyon Bridge, which suggests that maternity roosts are likely nearby. Based on the analysis of acoustic

detectors, the bat species conclusively detected in the Morrill Canyon Creek Bridge BSA include pallid bat, big brown bat, Mexican free-tailed bat, and canyon bat. At least two other and as many as four more bat species were detected in addition to the four conclusively identified bat species.

No bats were observed emerging from any of the trees during the Strawberry Creek Bridge nighttime acoustic and emergence surveys. There was no evidence of day roosting in the immediate vicinity of the bridge, and no bats were observed night roosting at the Strawberry Creek Bridge. Based on analysis of acoustic detectors, two bat species (big brown bat and Mexican free-tailed bat) and two other groups were detected in the vicinity of Strawberry Creek Bridge.

Insects

Two state and/or federal special-status insect species, the Quino checkerspot butterfly and crotch bumblebee, have the potential to occur within the region surrounding the BSA. Based on survey results conducted for the project, there is no habitat in the Morrill Canyon Bridge or Strawberry Creek BSAs that is suitable for the Quino checkerspot butterfly. Suitable habitat for crotch bumblebee may be present in the Strawberry Creek BSA but not within the Morrill Canyon Bridge BSA.

Fish

One state and/or federal special-status fish species, the southern California steelhead, has the potential to occur within the region surrounding the BSA, based on wildlife database queries conducted for the project. Based on survey results conducted for the project, suitable habitat for the southern California steelhead may be present in the Morrill Canyon Bridge and Strawberry Creek Bridge BSAs but not in the PIAs.

Crustaceans

Two state and/or federal special-status crustacean species, the vernal pool fairy shrimp and Riverside fairy shrimp, have the potential to occur within the region surrounding the Morrill Canyon Bridge BSA, based on the wildlife database queries conducted for the project. However, during the surveys conducted for the project, no suitable vernal pool habitat was detected within the BSA.

The following tables summarize the listed animal species, candidate species, and special-status species potentially occurring or known to occur in the area in which the project area is located.

Table 2.3-9. Animal Species – Amphibians

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/ Absent	Rationale
Anaxyrus californicus	Arroyo toad	FE/SSC		Desert wash, riparian scrub, riparian woodland, south coast flowing waters/standing waters	O	Species observed during 2020 surveys in Morrill Canyon Bridge BSA
Rana muscosa	Southern mountain yellow-legged frog	FE, USFS_S/ SE		Aquatic	HP	Suitable habitat is present in Strawberry Creek Bridge BSA but not detected during 2020 surveys
Spea hammondii	Western spadefoot	None/SSC		Cismontane woodland, coastal scrub, valley & foothill grassland, vernal pool wetland	A	Suitable habitat is not present in the Strawberry Creek BSA
Taricha torosa	Coast Range newt	None/SSC		Coastal drainages from Mendocino County to San Diego County	O	Species observed during surveys in Morrill Canyon BSA

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

Table 2.3-10. Animal Species – Birds

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/ Absent	Rationale
Cypseloides niger	Black swift	BCC/SSC		San Bernardino & San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons, forages widely	HP	Suitable habitat present in the Strawberry Creek BSA but not the PIA
Polioptila californica californica	Coastal California gnatcatcher	FT		Coastal sage scrub	A	No suitable habitat is present in Morrill Canyon or Strawberry Creek BSAs

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/ Absent	Rationale
Empidonax traillii extimus	Southwestern willow flycatcher	FE/SE		Dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands	HP	Suitable habitat is present in Morrill Canyon BSA and Strawberry Creek BSA; species not detected during 2020 surveys
Vireo bellii pusillus	Least Bell's vireo	FE/SE		Riparian forest, riparian scrub, riparian woodland below 2000 feet	HP	Suitable habitat is present in Morrill Canyon BSA but not Strawberry Creek BSA; species not detected during 2020 surveys

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

Table 2.3-11. Animal Species – Crustaceans

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/ Absent	Rationale
Strepto-cephalus woottoni	Riverside fairy shrimp	FE/None		Found only in vernal pools, ponds, and ephemeral pool-like bodies of water	A	No suitable habitat present in Morrill Canyon BSA; no vernal pools detected during 2020 surveys
Branchinecta lynchi	Vernal pool fairy shrimp	FT/None		Vernal pools, seasonal wetlands, stagnant ditches with water during fall/winter rains and dry up in spring/summer	A	No suitable habitat present in Morrill Canyon BSA; no vernal pools detected during 2020 surveys

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

Table 2.3-12. Animal Species – Fish

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/Absent	Rationale
Oncorhynchus mykiss irideus pop.10	Steelhead southern California DPS	FE/None		Aquatic, south coast flowing waters, Santa Maria River south to San Mateo Creek in San Diego County	HP	Suitable habitat may be present in the BSA but not in PIA

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

Table 2.3-13. Animal Species – Insects

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/Absent	Rationale
Bombus crotchii	Crotch bumble bee	None/SCand		Coastal California east to Sierra-Cascade crest and south to Mexico	HP	Suitable habitat present in Strawberry Creek BSA
Euphydryas editha quino	Quino checkerspot butterfly	FE/None		Scrub habitat with California sagebrush, chamise, and non-native/ native grassland	A	No habitat present in Morrill Canyon BSA or Strawberry Canyon BSA

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

Table 2.3-14. Animal Species – Mammals

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/ Absent	Rationale
Dipodomys merriami pavus	San Bernardino kangaroo rat	FE/SCand	SSC	Coastal scrub, alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and floods	A	No suitable habitat present in Strawberry Creek BSA
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST		Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover	A	No suitable habitat present in Strawberry Creek BSA
Onychomys torridus ramona	Southern grasshopper mouse	None/none	SSC	Chenopod scrub, desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover	A	No suitable habitat present in Strawberry Creek BSA
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/SSC		Coastal scrub, lower elevation grasslands and coastal sage communities in L.A. basin	A	No suitable habitat present in Strawberry Creek BSA

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

Table 2.3-15. Animal Species – Reptiles

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/ Absent	Rationale
Anniella stebbinsi	Southern California legless lizard	USFS_S/None		Broadleaved upland forest, chaparral, coastal dunes, coastal scrub. In moist loose soils; prefers soils with high moisture content	A	No suitable habitat present in Strawberry Creek BSA
Aspidoscelis hyperythra	Orange-throated whiptail	USFS_S/None		Chaparral, cismontane woodland, coastal scrub, low elevation coastal scrub, chaparral, and valley foothill hardwood habitats	HP	Suitable habitat present in Morrill Canyon BSA and Strawberry Creek BSA
Charina umbratica	Southern rubber boa	USFS_S/ST		Meadow & seep, riparian forest, riparian woodland, upper montane coniferous forest, wetland; found in	HP	Suitable habitat is present in Strawberry Creek BSA

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Habitat	Habitat Present/ Absent	Rationale
				streams or wet meadows, requires loose, moist soil for burrowing		
Crotalus ruber	Red-diamond rattlesnake	USFS_S/ SSC		Chaparral, mojavean desert scrub, sonoran desert scrub	HP	Suitable habitat present in Morrill Canyon BSA
Emys Marmorata	Western pond turtle	USFS_S/ SSC		Aquatic wetland. Thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches	HP	Suitable habitat present in the Morrill Canyon BSA
Phrynosoma blainvillii	Coast horned lizard	None/SSC		Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon & juniper woodlands, riparian scrub, riparian woodland, valley & foothill grass	HP	Suitable habitat present in the Morrill Canyon BSA and Strawberry Creek BSA
Thamnophis hammondii	Two-striped gartersnake	USFS_S/SSC		Marsh & swamp, riparian scrub, riparian woodland, wetland	HP	Suitable habitat present in Morrill Canyon BSA.

Source: Natural Environment Study, 2020.
Notes:
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is or may be present. Observed [O] – species or vegetation community observed. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FCand); Birds of Conservation Concern (BCC); U.S. Forest Service Sensitive (USFS_S); State Endangered (SE); State Threatened (ST); State Candidate (SCand); Fully Protected (FP); State Species of Special Concern (SSC); State Watch List (WL); CNPS Rank: 1B.1 presumed extirpated, seriously threatened; 1B.2 presumed extirpated, moderately threatened; 2B.2 rare in California but common elsewhere, moderately threatened; 3.1 plants about which more information is needed, seriously threatened; 4.2 limited distribution in California, moderately threatened; 4.3 limited distribution in California, not very threatened.

2.3.4.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3

Avian Species

Clearing, grubbing, and construction-related noise have the potential to impact nesting birds. Clearing and grubbing activities will remove vegetation where shoulder widening would occur. Removing vegetation will decrease foraging and nesting habitat availability for avian species. To ensure that the project will not impact migratory bird species in the BSA or their nest or eggs, avoidance and minimization measures will be implemented. This will ensure that the project does not cause listed species to trend towards becoming extinct, or State Species of Special Concern to trend towards becoming listed.

In the Morrill Canyon Bridge PIA, there would be 0.066 acre of temporary impacts on jurisdictional drainages and impacts on three California sycamores, 57 coast live oaks, and one Goodding's black willow. In the Strawberry Creek Bridge PIA, there will be 0.2 acre of temporary impact on jurisdictional drainage and impacts on five white alders, eight California sycamore, five interior live oaks, and one Goodding's black willow. The loss of vegetation may result in loss of avian foraging and sheltering habitat. Project-related activities could deter individuals from nesting within nearby suitable habitat. However, implementation of the avoidance and minimization measures provided below will ensure that there are no substantial impacts on avian species.

Amphibians

In the Morrill Canyon Bridge PIA, there will be 0.973 acre of temporary impacts on potential arroyo toad breeding and upland habitats resulting from the implementation of Morrill Canyon Bridge Alternative M1. The alternative include impacts on chaparral vegetation and woodlands and forest vegetation communities. The alternative would not impact riparian vegetation communities. Implementation of Strawberry Creek Bridge Alternative S1would result in 0.50 acre of temporary disturbance within the project footprint. Implementation of Strawberry Creek Bridge Alternative S3 would result in 0.619 acre of temporary disturbance within the project footprint. Both alternatives would include impacts on chaparral vegetation, woodlands and forest, and riparian vegetation communities. Clearing, grubbing, and construction of new bridge piers has the potential to impact amphibian species. Temporary impacts, in the form of construction activities, temporary bridges, roads, and staging areas will occur. Arroyo toads and Coast Range newts have the potential to be crushed by equipment during project activities. Decreasing slopes to 2:1 in the areas adjacent to the Morrill Canyon Bridge project could potentially allow adult arroyo toads, where they occur, to climb up slopes in areas that were previously too steep to climb and access the roadway, which would in turn result in potential for higher mortalities and injuries along SR-74. Compaction associated with the new cut and fill slopes may result in areas that arroyo toads formerly used as aestivation habitat that are no longer suitable to be used by the species for that purpose. Temporary impact areas will be restored at a 1:1 ratio. The project will mitigate for temporary impacts through restoration and enhancement of on-site riparian/riverine areas. A Habitat Mitigation and Monitoring Plan (HMMP) will be prepared that will detail the restoration techniques, identify success criteria, and provide for adaptive management techniques. This will provide riparian/riverine habitat that is of equivalent or better quality to the affected habitat and is contiguous with existing and anticipated conservation areas.

Reptiles

There is no habitat in the BSA suitable for southern California legless lizard. Therefore, the project will not impact this species. Suitable habitat is present within the Morrill Canyon BSA for coast horned lizard, orange throated whiptail, two-striped garter snake, western pond turtle, and red diamond rattlesnake. Suitable habitat is present within the Strawberry Creek BSA for the coast horned lizard, orange throated whiptail, and southern rubber boa. Clearing, grubbing, and construction of new bridge piers have the potential to impact these species.

Mammals

There is no habitat in the BSAs for either bridge that is suitable for San Bernardino kangaroo rat, Stephens' kangaroo rat, southern grasshopper mouse, and Los Angeles pocket mouse. Therefore, the project will not impact these species. No crevice or cavity habitat suitable for day-roosting bats is present at the Morrill Canyon Creek Bridge or the Strawberry Creek Bridge. Night-

roosting habitat is present at both bridges, but the lack of extensive bat signs including guano and staining at these structures suggests that neither of these bridge structures serves as a significant night roost. Although no day-roosting habitat for bats is present within either of the two bridge structures, day roosting habitat is present in the foliage, crevices, or cavities of mature trees and snags that will be removed during clearing associated with installation of temporary bridges. To ensure that the project will not cause State Species of Special Concern to trend towards becoming listed, avoidance and minimization measures will be implemented.

Insects

Given the lack of suitable habitat, the project would not impact or take the Quino checkerspot butterfly. However, clearing and grubbing with the Strawberry Creek BSA has the potential to impact crotch bumblebee. As such, implementation of avoidance and minimization measures will be incorporated.

Fish

The project would not directly impact or take the federally listed southern California steelhead. Activities associate with both bridges include ground disturbance, clearing and grubbing, and cut and fill activities that could contribute to further impaired habitat and water quality downstream. To prevent potential impacts, the project will implement Caltrans Standard Stormwater BMPs.

Crustaceans

There is no suitable vernal pool habitat for federally listed crustacean species within the PIA. Therefore, the project would not impact or take the federally listed vernal pool fairy shrimp or Riverside fairy shrimp.

No Build Alternative

The No-Build Alternative would not add to impacts on special-status animals or potentially suitable habitat.

Permanent

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3

The project is anticipated to permanently impact suitable habitat for southern mountain yellow-legged frog in the Strawberry Creek Bridge PIA and habitat occupied by Coast Range newt and arroyo toad in the Morrill Canyon Bridge BSA. The USFWS considers all habitats (including upland areas) within 1 kilometer of arroyo toad-occupied habitat to also be potentially occupied. Therefore, quantification of impacts on potential arroyo toad breeding and upland habitats includes all impacted areas within 1 kilometer of the Morrill Canyon Bridge project area and survey areas. In the Morrill Canyon Bridge PIA, there will be 0.183 acre of permanent impacts on potential arroyo toad breeding and upland habitats resulting from Morrill Canyon Bridge Alternative M1. There will be an additional 0.1 acre of permanent impacts due to paving the Tenaja Truck Trail, an existing dirt road on which there is no suitable arroyo toad upland foraging habitat. The Morrill Canyon Bridge alternative include impacts on chaparral vegetation and woodlands and forest vegetation communities. No impacts on riparian vegetation communities would occur.

Implementation of Strawberry Creek Bridge Alternative S1 would result in 0.232 acre of permanent disturbance within the project footprint. Implementation of Strawberry Creek Bridge Alternative S3 would result in 0.220 acre of permanent disturbance within the project footprint. Both Strawberry Creek Bridge alternatives would impact chaparral vegetation, woodlands, and forest and riparian vegetation communities.

Potential runoff resulting from future precipitation events and noise associated with traffic on the roadway are anticipated to be consistent with pre-project existing conditions, and thus indirect impacts associated with runoff and noise are not anticipated for both bridges.

Permanent impact on riparian/riverine habitat that supports arroyo toads and Coast Range newts is proposed to be mitigated through the purchase and conservation of arroyo toad occupied habitat within the WRCMSHCP area. Permanent impact on riparian/riverine habitat that has the potential to support southern mountain yellow-legged frog is proposed to be mitigated through the purchase and conservation of habitat that is suitable for the southern mountain yellow-legged frog within the WRCMSHCP. In addition to contributing to the WRCMSHCP Arroyo Toad Conservation Objective 5, the following measure will be implemented: onsite mitigation will include controlling or removing known threats from Morrill Canyon Creek and Strawberry Creek, including eliminating bullfrogs and removing exotic vegetation.

As previously mentioned, in the Morrill Canyon Bridge PIA, there will be up to 0.021 acre of permanent impact on jurisdictional drainages and impacts on three California sycamores, 57 Coast live oaks, and one Goodding's black willow. In the Strawberry Creek Bridge PIA, there will be up to 0.1 acre of permanent impacts on jurisdictional drainages and impacts on five White alders, eight California sycamores, five interior live oaks, and one Goodding's black willow.

No-Build Alternative

The No-Build Alternative would not add to impacts on special-status animals or potentially suitable habitat.

2.3.4.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to ensure that impacts would be avoided or minimized.

Bird Species

To ensure that the project will not impact migratory bird species in the BSAs or their nests or eggs, avoidance and minimization measures will be implemented. This will ensure that the project does not cause listed species to trend towards becoming extinct, or State Species of Special Concern to trend toward becoming listed. With implementation of avoidance and minimization measures BIO-6 and BIO-7, the project will not impact nesting birds, and the following measure will also be implemented:

BIO-13 Preconstruction Nesting Bird Survey: If project-related activities cannot avoid the nesting season, generally regarded as February 1 through September 30, then pre-construction nesting bird surveys must be conducted 3 days prior to construction by a Contractor-supplied biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer must be established.

Amphibian

Avoidance and minimization measures for the special-status amphibian species with suitable habitat within the project area will include BIO-1, BIO-6, BIO-7, and the following:

BIO-2 Artificial Lighting: Artificial lighting for the project site must be directed specifically at the work site only.

BIO-3 Pre-Construction Surveys: Pre-construction arroyo toad, Coast Range newt, and mountain yellow-legged frog surveys must be conducted by an authorized Contractor-supplied biologist immediately prior to the start of ground-disturbing activities, including the installation of arroyo toad, Coast Range newt, and mountain yellow-legged frog exclusion fencing, within the project impact area. If an arroyo toad, Coast Range newt, or mountain yellow-legged frog individual is located, the Resident Engineer and a Caltrans biologist will be contacted, and avoidance and minimization measures must be required.

BIO-4 Work Avoidance: Avoid blasting during the arroyo toad breeding season (March 1-June 30) within the Morrill Canyon Bridge project area.

BIO-5 If during construction activities arroyo toad, Coast Range newt, and mountain yellow-legged frog is discovered within the project site, the Contractor-supplied biologist must have the authority to halt all construction activities and direct movements of equipment and personnel to avoid injury to mortality to arroyo toad, Coast Range newt, and mountain yellow-legged frog. Arroyo toad, Coast Range newt, and mountain yellow-legged frog cannot be handled or harassed and must leave the job site under their own accord.

BIO-8 ESA Fencing: To prevent entry by arroyo toad, Coast Range newt, and mountain yellow-legged frog into the work site, temporary exclusion fencing must be installed outlining the perimeter of any construction staging, storage, or batch plant areas.

BIO-9 ESA Fence Monitoring: Fence and enclosure (onsite cleared areas) inspections must occur daily throughout the duration of the project prior to commencing construction activities and after construction activities are completed. If during construction, the fence fails, work must stop until it is repaired and the Contractor-supplied biologist inspects (and clears) the site.

BIO-10 ESA Fence Removal: All ESA fencing will be removed as a last order of work. During removal, a biological monitor will be present.

BIO-11 Animal Entrapment: To prevent inadvertent entrapment of arroyo toad, Coast Range newt, and mountain yellow-legged frog during project activities, all excavated steep-walled holes or trenches more than one foot must be covered at the close of each working day by plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Trapped animals must be released by the Contractor-supplied biologist.

BIO-12 Handling: The qualified biologist must avoid use of insecticides, sunscreens, or any other lotions, creams or products on their skin, clothing, footwear, or field equipment immediately prior to and during handling of arroyo toad, Coast Range newt, and mountain yellow-legged frog.

Reptiles

Avoidance and minimization measure for the special-status reptile species with suitable habitat within the project area will include the following: BIO-1, BIO-6, BIO-7, and BIO-11.

Mammals

To ensure that the project will not cause State Species of Special Concern to trend towards becoming listed, avoidance and minimization measures will be implemented. Avoidance and minimization measures for the special-status species with suitable habitat within the project area will include BIO-1, BIO-6, BIO-7, BIO-11, and the following:

BIO-17 Tree Removal: All mature trees to be removed as part of the project must be more closely evaluated by a qualified bat biologist for their potential to support roosting bats. Trees that are identified as suitable bat roost sites must be removed using a two-step process that occurs over a 2-day period. On Day 1, branches and limbs that do not contain crevices or cavities must be removed using hand tools or chainsaws. On Day 2, the remainder of the tree may be removed. Trimming or removal of any mature trees (including untrimmed palm trees) and snags during the maternity season (April 1-August 31) must be avoided to prevent “take” of nonvolant (flightless) young. Tree removal should be performed between September 1 and October 31 to the greatest extent feasible to avoid direct impacts to bats roosting in foliage, crevices, and cavities of trees. This time period is after young are volant (flying), but before expected onset of torpor (winter inactivity). This work may also be conducted between February 15 and March 31, following winter torpor and prior to the start of the maternity season. If removal of mature trees (including trimming of palm fronds or removal of palm trees) during the bat maternity season is necessary for project construction, all mature trees to be removed that have also been identified as containing suitable bat roosting habitat should be surveyed at night prior to removal. Any trees confirmed during those surveys as housing bat maternity colonies must be avoided until the end of maternity season.

Insects

With implementation of the following avoidance and minimization measure, the project will not cause take of the State Candidate species or impact its host plant:

BIO-14 Rare insect host plant pre-construction clearance survey, flagging, and fencing: No more than one week prior to project-related activities, a qualified biologist must perform a pre-construction survey for rare insect host plants. Should any rare insect host plants be found, the Resident Engineer and Caltrans Biologist must be contacted, and host plants must be flagged by the biologist for visual identification to construction personnel for work avoidance. Should multiple plants in a single location be found, the groupings must be fenced with environmentally sensitive area temporary fencing.

2.3.5 Threatened and Endangered Species

2.3.5.1 Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA) (and the Department, as assigned), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take Statement or a Letter of Concurrence. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts on rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of FESA, the CDFW may also authorize impacts on CESA 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 United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

2.3.5.2 Affected Environment

Information used in this section is based on the November 2020 NES prepared for this project.

A species list was obtained from CDFW via the CNDDB, in accordance with CESA. The BSA for the project includes all areas that could potentially be impacted by the project, plus a 500-foot buffer to account for any changes to the project limits and design that may occur during project development. The PIA consists of the area adjacent to and under the bridge decks within the Caltrans right of way. Caltrans has determined that the project will result in “No Take” to the following state-listed rare, threatened, endangered, candidate endangered, or fully protected species:

- San Bernardino kangaroo rat
- Encinitas baccharis
- Crotch bumble bee
- Southwestern willow flycatcher
- Least Bell’s vireo
- Slender-horned spineflower
- San Diego button-celery
- Southern mountain yellow-legged frog
- Thread-leaved brodiaea
- Mojave tarplant
- Stephen’s kangaroo rat
- Southern rubber boa

In accordance with Section 7(a)(2) of the Endangered Species Act, Caltrans has determined that the project "May Affect, and is Likely to Adversely Affect" federally listed arroyo toads and their habitat. This will be authorized through a Biological Opinion through the WRCMSHCP. Furthermore, Caltrans has determined that the project will have "No Effect" to the following federally listed threatened or endangered species:

- Southwestern willow flycatcher
- Least Bell's vireo
- Riverside fairy shrimp
- Steelhead-southern California distinct population segment (DPS)
- Quino checkerspot butterfly
- San Bernardino kangaroo rat
- Stephens' kangaroo rat
- Slender-horned spineflower
- San Diego button-celery
- Coastal California gnatcatcher
- Vernal pool fairy shrimp
- Thread-leaved brodiaea
- Encinitas baccharis
- Spreading navarrtia

Caltrans has determined that the project will not impact the following CNPS rare plants:

- California screw moss
- Chaparral sand-verbena
- Rainbow manzanita
- Jaeger's milk-vetch
- Thread-leaved brodiaea
- Santa Rosa Basalt brodiaea
- San Jacinto mariposa-lily
- Plummer's mariposa-lily
- Parry's spineflower
- Long-spined spineflower
- White-bracted spineflower
- San Miguel savory

- Summer holly
- Mojave tarplant
- Slender-horned spineflower
- Many-stemmed dudleya
- Stick dudleya
- Encinitas baccharis
- San Jacinto Mountains bedstraw
- Alvin Meadow bedstraw
- Mesa horkelia
- Lemon lily
- Intermediate monardella
- Hall's monardella
- Chaparral nolina
- California beardtongue
- White rabbit-tobacco
- Latimer's woodland-gilia
- San Diego button-celery
- Southern mountains skullcap
- Spreading navarretia
- Parry's tetracoccus
- La Purisima viguiera

Based on the Essential Fish Habitat consultation with the NOAA Fisheries, one species was identified as having the potential to occur within the project quadrangle: southern California steelhead. However, there is no suitable aquatic habitat that would support this species in the PIAs. Therefore, the project has no potential to impact this or other NOAA Fisheries-protected resources.

Furthermore, there is no designated critical habitat in the Morrill Canyon Bridge BSA or in the Strawberry Creek Bridge BSA. As such, the project will not impact designated critical habitat.

2.3.5.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Bridge Alternatives S1 and S3
During the 2020 surveys conducted for the project, two adult arroyo toads, a federally listed species, were detected in the buffer survey area at the Morrill Canyon Bridge site. In the Morrill Canyon Bridge PIA, there will be 0.973 acre of temporary impacts on potential arroyo toad breeding and upland habitats as a result of Morrill Canyon Bridge Alternative M1. Clearing, grubbing, construction activities, and construction of new bridge piers have the potential to impact arroyo toads. Caltrans has determined, in accordance with Section 7(a)(2) of the Endangered Species Act, the project "May Affect, and is Likely to Adversely Affect" federally listed arroyo toads and their habitat. This will be authorized through a Biological Opinion through the WRCMSHCP.

No-Build Alternative
The No-Build Alternative would not be expected to affect threatened or endangered plant or animal species because there would be no change from existing conditions.

Permanent

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Alternatives S1 and S3
The project is anticipated to permanently impact suitable habitat occupied by arroyo toad in the Morrill Canyon Bridge BSA. There will be 0.183 acre of permanent impact on potential arroyo toad breeding and upland habitats resulting from implementation of Morrill Canyon Bridge Alternative M1. As previously mentioned, Caltrans has determined, in accordance with Section 7(a)(2) of the Endangered Species Act, the project "May Affect, and is Likely to Adversely Affect" federally listed arroyo toads and their habitat. This will be authorized through a Biological Opinion through the WRCMSHCP.

No-Build Alternative
Long-term operation of the No-Build Alternative would not be expected to affect threatened or endangered plant or animal species because there would be no change from existing conditions.

2.3.5.4 Avoidance, Minimization, and/or Mitigation Measures

Caltrans has determined, in accordance with Section 7(a)(2) of the Endangered Species Act, the project "May Affect, and is Likely to Adversely Affect" federally listed arroyo toads and their habitat. This will be authorized through a Biological Opinion through the WRCMSHCP.

2.3.6 Invasive Species

2.3.6.1 Regulatory Setting

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

2.3.6.2 Affected Environment

Information used in this section is based on the November 2020 NES prepared for the project.

Numerous invasive plant and animal species were identified in the BSAs during the biological surveys. Invasive animal species included the European starling (*Sturnus vulgaris*, extent widespread, already introduced). Numerous invasive grasses were also observed: slim oat (*Avena barbata*), wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis ssp. rubens*), downy chess (*Bromus tectorum*), Bermuda grass (*Cynodon dactylon*), rattail sixweeks grass (*Festuca myuros*), farmer’s foxtail (*Hordeum murinum ssp. leporinum*), and giant wild rye (*Elymus condensatus*), and rabbitfoot grass (*Polypogon monspeliensis*). The remaining invasive plant species observed in the BSA include the following: tocalote (*Centaurea melitensis*), prickly lettuce (*Lactuca serriola*), sow thistle (*Sonchus asper ssp. asper*), shepherd's purse (*Capsella bursa-pastoris*), mustard (*Hirschfeldia incana*), sweet alyssum (*Lobularia maritima*), London rocket (*Sisymbrium irio*), Russian thistle (*Salsola tragus*), spotted spurge (*Euphorbia maculata*), California burclover (*Medicago polymorpha*), alfalfa (*Medicago sativa*), annual yellow sweetclover (*Melilotus indicus*), puncture vine (*Tribulus terrestris*), coastal heron's bill (*Erodium cicutarium*), white horehound (*Marrubium vulgare*), cheeseweed (*Malva parviflora*), curly dock (*Rumex crispus*), and tree tobacco (*Nicotiana glauca*).

2.3.6.3 Environmental Consequences

Temporary

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Bridge Alternatives S1 and S3
During construction activities, construction vehicles and equipment could transport invasive plant species from past work sites to the project area or between work areas within the study area. After construction is complete, areas left as bare ground could create favorable conditions for invasive plants and promote the spread of these species. Prior to implementation of the proposed project, all construction equipment would be inspected and cleaned prior to use to minimize the importation and spread of non-native plant material. To ensure that the project does not cause or promote the introduction or spread of invasive species, Caltrans Standard BMPs will be implemented.

No-Build Alternative
The No-Build Alternative would not be expected to add to the temporary impacts from invasive species because it would not change existing conditions.

Permanent

Morrill Canyon Bridge Alternatives M1, Strawberry Creek Bridge Alternatives S1 and S3
Although the transport of invasive plant species is a real threat to ecosystems, the build alternatives would not increase the risk above the existing baseline; therefore, impacts are considered less than significant under CEQA and not adverse under NEPA.

No-Build Alternative
The No-Build Alternative is not expected to add to the impacts from invasive species because it would not change existing conditions.

2.3.6.4 Avoidance, Minimization, and/or Mitigation Measures

To ensure that the build alternatives do not promote the introduction or spread of invasive plant species to the open space areas within the study area, standard Caltrans BMPs will be implemented.

This page intentionally left blank.

2.4 Cumulative Impacts

2.4.1 Regulatory Setting

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

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

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

2.4.2 Methodology

The Department, in conjunction with FHWA and U.S. EPA, developed a guidance document titled *Guidance for Preparers of Cumulative Impact Analysis* (2005). The discussion below is based on the referenced guidance.

As specified in the guidance, if a proposed project will not cause direct or indirect impacts on a resource, it will not contribute to a cumulative impact on that resource. Furthermore, it is identified in the guidance that the cumulative impact analysis should focus only on (1) those resources significantly affected by the project or (2) resources currently in poor or declining health or at risk, even if the project impacts are relatively small. Therefore, less-than-significant impacts need not be included in the evaluation of potential cumulative impacts.

Resource Study Areas (RSAs) for those resources warranting analysis were identified for each respective resource. As discussed at the beginning of Chapter 2, or in the related sections of Chapter 2 of this environmental document, the proposed project would result in minor impacts but would not result in direct or indirect impacts for the topics listed below; therefore, no discussion is provided for the following topics in the evaluation of potential cumulative impacts:

- Coastal zone

- National Oceanic and Atmospheric Administration
- Wild and scenic rivers
- Land use
- Growth
- Hydrology and Floodplains
- Community impacts
- Utilities and emergency services
- Relocations and real property
- Environmental justice
- Visual impacts
- Cultural resources
- Floodplains
- Traffic and transportation/pedestrian and bicycle facilities
- Air quality
- Noise
- Energy
- Paleontology
- Hazardous Waste/Materials

2.4.3 Resources Evaluated for Potential Cumulative Impacts

The discussion of potential cumulative impacts is organized by environmental resource area, as follows:

- Parks and Recreational Facilities
- Emergency Services
- Natural Communities
- Jurisdictional Waters
- Plants and Animal Species
- Amphibians and Reptiles

The following cumulative projects are located in and near the project site. There were no other planned or reasonably foreseeable project improvements identified within the RSA for any of the environmental resources evaluated for potential cumulative impacts:

- Emergency Projects on State Route 74: Caltrans is continuing emergency repairs to SR-74 and SR-243 leading to the Idyllwild and Mountain Center communities due to damage incurred during the winter and spring rains of 2019 on both routes. The $30 million emergency contract is replacing culverts, rebuilding slopes and roadbeds, replacing drains, scaling rock, repaving roadbeds, and reinstalling guardrail and signage.
- EA 1C850 SR-74 Widen Lanes and Shoulders Project (PM 0.0-5.78): The project proposes to widen SR-74, add shoulders, and rumble strips from PM 0.0 to PM 5.78.

2.4.3.1 Parks and Recreational Facilities

The RSA for parks and recreational facilities is the area within 0.50 mile of the SR-74 right of way. The San Juan Loop Trailhead and Bear Canyon Trailhead are located within 0.50 mile of the Morrill Canyon Bridge. Strawberry Creek crosses below the Strawberry Creek Bridge. The demand on parks and recreational facilities is not anticipated to increase due to the proposed project. The Emergency Projects along SR-74 and EA 1C850 SR-74 Widen Lanes and Shoulder Project would not negatively affect the San Juan Loop Trailhead, Bear Canyon Trailhead, or Strawberry Creek. The replacement of Morrill Bridge would be beneficial for those traveling along SR-74 to get to various recreational areas within the vicinity. The emergency repairs along SR-74 would also be beneficial and increase safety for the traveling public. The proposed project along with the above described cumulative projects would not have an adverse cumulative effect on the existing San Juan Loop Trailhead, Bear Canyon Trailhead, or Strawberry Creek.

2.4.3.2 Emergency Services

The RSAs for emergency services are the major transportation networks in the area, including SR-74, I-15, and SR-243. The proposed project would result in temporary and short-term traffic congestion and delays during the construction phase. The above described cumulative projects, if constructed during the same time period, may add to these traffic delays. However, each project would be required to prepare a Traffic Management Plan (TMP) or similar plan to mitigate and address detours and roadway closures, and include advance notice to emergency services in the area. Cumulative impacts on emergency services would be short term and last only the duration of construction. As such, the proposed project would not contribute to cumulative emergency services impacts.

2.4.3.3 Natural Communities

The RSA for cumulative biological resources impacts analysis encompasses the biological study area (BSA). The proposed project activities will result in direct, permanent impacts on Southern Coast Live Oak Riparian Forest within the Morrill Canyon Bridge PIA and on Southern Sycamore Alder Riparian Woodland in the Strawberry Creek Bridge PIA. In the Morrill Canyon Bridge PIA, there will be impacts on three California sycamores, 49 coast live oaks, and one Goodding’s black willow. In the Strawberry Creek Bridge PIA, there will be impacts on five White alders, seven California sycamores, three interior live oaks, and one Goodding’s black willow. The proposed project is located within the project limit of the EA 1C850 SR-74 Widen Lanes and Shoulder project and would permanently impact 1.30 acres of coast live oak-sycamore riparian habitat. However, these impacts will be fully compensated by compliance with state regulations such that no net loss of habitat functions or values occurs. The Emergency Projects on SR-74 will be analyzed for impacts on natural communities on a case by case basis and

comply with state regulations should any natural communities be affected. Because project impacts will be fully mitigated, the proposed construction will not contribute to regional cumulative loss of Natural Communities of Concern. Given that the permanently impacted acreage is small, the proposed project is anticipated to have negligible cumulative impacts on Natural Communities of Concern.

2.4.3.4 Jurisdictional Waters

In the Morrill Canyon Bridge PIA, there will be up to 0.021 acre of permanent impacts and 0.066 acre of temporary impacts on jurisdictional drainages. In the Strawberry Creek Bridge PIA, there will be up to 0.1 acre of permanent impacts and 0.19 acre of temporary impacts on jurisdictional drainages. The Morrill Canyon Bridge portion of the project is within the project limits of the EA 1C850 SR-74 Widen Lane and Shoulder project, which would permanently impact 0.01 acre of non-wetland waters of the U.S. and waters of the state, and 6.23 acres of CDFW jurisdiction and riparian/riverine areas. However, these impacts will be fully compensated by compliance with state regulations such that no net loss of habitat functions or values occurs. Because the project impacts associated with the EA 1C850 SR-74 Widen Lanes and Shoulders project and the proposed project will be fully mitigated, the proposed construction will not contribute to regional cumulative loss of riparian resources.

2.4.3.5 Plant and Animal Species

The project activities will result in direct, permanent impacts on Southern Coast Live Oak Riparian Forest within the Morrill Canyon Bridge PIA and direct, permanent impacts on Southern Sycamore Alder Riparian Woodland in the Strawberry Creek Bridge PIA. In the Morrill Canyon Bridge PIA, there will be up to 0.021 acre of permanent impacts and 0.066 acre of temporary impacts on jurisdictional drainages and impacts on three California sycamore, 49 coast live oaks, and one Goodding's black willow. In the Strawberry Creek Bridge PIA, there will be up to 0.1 acre of permanent impacts and 0.19 acre of temporary impacts on jurisdictional drainages and impacts on five White alders, seven California sycamores, three interior live oaks, and one Goodding's black willow. The Morrill Canyon Bridge is within the project limits of the EA 1C850 SR-74 Widen Lanes and Shoulders project, which would permanently impact 1.30 acres of coast live oak-sycamore riparian habitat. However, these impacts will be fully compensated by compliance with state regulations such that no net loss of habitat functions or values occurs. The loss of vegetation associated with the proposed project and EA 1G470 SR-74 Widen Lanes and Shoulders project may also result in the loss of avian foraging and sheltering habitat. However, implementation of avoidance and minimization measures on a project by project basis will ensure that there are no substantial cumulative impacts on avian species. There were no special-status plant species found within the project limits of the EA 1C850 SR-74 Widen Lane and Shoulders project, as such no cumulative impacts on special-status plant species would occur.

2.4.3.6 Amphibians and Reptiles

Morrill Canyon Bridge Alternative M1 would result in 0.183 acre of permanent impacts and 0.864 acre of temporary impacts on potential arroyo toad breeding and upland habitats. Implementation of Strawberry Creek Bridge Alternative S1 would result in a total of 0.734 acre of disturbance within the project footprint. Implementation of Strawberry Creek Bridge

Alternative S3 would result in a total of 0.839 acre of disturbance. Morrill Canyon Bridge is within the limits of the EA 1C850 SR-74 Widen Lanes and Shoulder project that would result in 1.58 acres of permanent impacts on arroyo toad critical habitat. The loss of vegetation associated with both projects may result in loss of amphibian and reptile foraging and sheltering habitat. However, implementation of avoidance, minimization, and mitigation measures will ensure that there are no substantial cumulative impacts on amphibian and reptile species.

2.4.4 Avoidance, Minimization and/or Mitigation Measure

No additional measures are planned for cumulative impacts.

This page was intentionally left blank.

Chapter 3 CEQA Evaluation

3.1 Determining Significance under CEQA

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

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

CEQA, on the other hand, does require the Department 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 (EIR) must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 CEQA Environmental Checklist

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

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

I. Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) 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 publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

CEQA Significance Determinations for Aesthetics

a), b) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3. As discussed in Chapter 2, SR-74 within the area of Morrill Canyon Bridge and Strawberry Creek Bridge is listed as an Eligible State Scenic Highway. As the proposed project would increase safety at the two bridge locations, the project would not have a substantial adverse effect on a scenic vista. The replacement bridges would incorporate the existing design, to the extent feasible. No other new structures or facilities would be constructed with the project.

c), d) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3. The proposed project would result in the replacement of the Morrill Canyon Bridge and Strawberry Creek Bridge. The replacement bridges would be aesthetically similar to the existing bridges and borrow design cues from the existing bridges. The project as designed would not substantially

degrade the visual character and quality of the site and would not create a new source of substantial light or glare in the area.

II. Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

CEQA Significance Determination for Agriculture and Forest Resources

a), b), c), e) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Based on the California Department of Conservation's Farmland Mapping and Monitoring Program, no farmlands or vacant lands have been mapped or designated as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance in the vicinity of the two bridge locations. There are no areas within Williamson Act contract.

d) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Morrill Canyon Bridge is located in the Cleveland National Forest and Strawberry Creek Bridge is

located in the San Bernardino National Forest of the United States Forest Service (USFS). Morrill Canyon Bridge Alternative M1 will impact three California sycamores, 57 coast live oaks, and one Goodding's black willow. Strawberry Creek Bridge Alternatives S1 and S3 will impact five white alders, eight California sycamores, five interior live oaks, and one Goodding's black willow. The USFS has a condition that once a tree has been cut, the tree must remain on site and used as mulch within the post miles of the project limits. Less than significant impacts are anticipated, as the project would coordinate and comply with the USFS condition.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				
Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

CEQA Significance Determinations for Air Quality

a), b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Construction of the project would not exceed any applicable local significance thresholds. The overall effects of the project on emissions of criteria air pollutants and their precursors would be very minor. Future emissions of reactive organic gases, nitrogen oxides, and carbon monoxide would be lower than at present with or without implementation of the project, due to improved fuel economy and pollution control technologies. Air pollutant emissions would not increase overall due to operation of the proposed project. Operational impacts would be negligible, as the proposed improvements are not capacity-increasing, and would not result in any trip generation or traffic redistribution. Therefore, the proposed project would not conflict with the Air Quality Management Plan, violate any air quality standard, or result in a net increase of any criteria pollutants.

c) Less than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The proposed project would comply with the South Coast Air Quality Management District's Rule

403, Fugitive Dust, by implementing the rule-stipulated best available control measures to minimize fugitive dust emissions. Sensitive receptors would be exposed to pollutants for a small portion of the total construction period because equipment would not be operated at a particular location along the alignment for an extended period of time. The diesel particulate matter emissions generated from construction equipment would be sporadic, transitory, and short term in nature. Therefore, the project would not expose receptors to acute and/or chronically hazardous toxic air contaminant pollutants.

Due to the rural nature of the project site, distance to the nearest sensitive receptor was assumed to be approximately 328 feet (100 meters). Emissions from construction of the proposed project would not exceed any applicable local significance threshold and, therefore, could not result in a violation of an air quality standard. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations during the construction period.

d) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The proposed project would not create new sources of motor vehicle traffic but could induce some motorists to alter their existing routes. Air pollutant emissions would not increase overall due to operation of the proposed project. Operational impacts would be negligible, and no mitigation measures or further analysis are required.

The project would result in replacement of two bridges along SR-74, and any odors generated by the project would be similar in nature to odors generated by the existing bridge structures. Exhaust emissions from construction vehicles and equipment and fugitive emissions from other construction activities would be tightly controlled. The minor amounts of odors generated by onsite construction activities would be substantially dispersed and diluted to negligible levels in adjacent offsite areas. The proposed project would not result in emissions (such as those leading to odors) that would affect a substantial number of people; therefore, no impacts would occur.

IV. Biological Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

CEQA Significance Determination for Biological Resources

a), b), c) Less Than Significant With Mitigation Incorporated.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: A total of 62 special-status species and Natural Communities of Concern were reported by the IPaC (U.S. Fish and Wildlife Service [USFWS]), National Oceanic and Atmospheric Administration (NOAA) Fisheries, California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS), as having the potential to occur within the Biological Study Areas (BSAs) for the two bridge locations. These include state- and federally listed threatened, endangered, rare, or candidate species, state species of special concern, state watch list species, and CNPS rare plants. There is no designated USFWS critical habitat in the two bridge BSAs. The project has the potential to impact plant species including San Miguel savory, summer holly, mesa horkelia, intermediate monardella, and southern mountains skullcap, for which suitable habitat is present within the Morrill Canyon Bridge BSA, and San Jacinto mariposa-lily, Plummer's mariposa-lily, Parry's spineflower, white-bracted spineflower, Mojave tarplant, California beardtongue, and southern mountains skullcap, for which suitable habitat is present in the Strawberry Creek Bridge BSA.

The clearing, grubbing, and construction noise associated with construction have the potential to impact nesting birds. Clearing and grubbing activities will remove vegetation where shoulder widening will occur at both bridge locations. Removing vegetation would decrease foraging and nesting habitat availability for avian species.

The project is anticipated to permanently impact suitable habitat for southern mountain yellow-legged frog in the Strawberry Creek Bridge Project Impact Area (PIA) and habitat occupied by Coast Range newt and arroyo toad in the Morrill Canyon Bridge BSA. In the Morrill Canyon Bridge PIA, there will be 0.183 acre of permanent impacts and 0.973 acre of temporary impacts

on arroyo toad breeding and upland habitats resulting from Morrill Canyon Bridge Alternative M1. There will be an additional 0.1 acre of permanent impacts due to the paving of the Tenaja Truck Trail, an existing dirt road on which there is no suitable arroyo toad upland foraging habitat. Implementation of Strawberry Creek Bridge Alternative S1 will result in 0.232 acre of permanent and 0.501 acre of temporary disturbance impacts within the project footprint. Implementation of Strawberry Creek Bridge Alternative S3 would result in 0.220 acre of permanent disturbance and 0.619 acre of temporary disturbance within the proposed footprint. Clearing, grubbing, construction of the new bridge piers, and other construction activities can potentially crush arroyo toad and Coast Range newts; also, the new cut and fill slopes may create access to the roadway that would result in higher mortality and/or injuries along SR-74.

The Morrill Canyon Bridge has riparian habitat and is built over a jurisdictional feature with Freshwater Forested/Shrub Wetland habitat. The Strawberry Creek Bridge BSA has riparian habitat and is also built over a jurisdictional feature with Freshwater Forested/Shrub Wetland habitat. Permanent impacts on jurisdictional waters will be caused by the placement of the new bridge supports and temporary impacts will be caused by construction access. The Morrill Canyon Bridge and Strawberry Creek Bridge replacements are anticipated to impact jurisdictional features and to require a Section 404 Nationwide Permit or Jurisdictional Delineation from the U.S. Army Corps of Engineers (USACE), a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), and a Section 1602 Streambed Alteration Agreement from the CDFW.

Based on surveys conducted for the project, no suitable habitat for day-roosting bats is present at the Morrill Canyon Creek Bridge or the Strawberry Creek Bridge. A lack of extensive bat signs of guano and lack of staining indicated that neither of these bridge structures serves as significant night roost. Day roosting habitat is present in the foliage, crevices, and cavities of mature trees and snags that will be removed during clearing associated with the installation of temporary bridges.

With implementation of avoidance and minimization measures BIO-1 through BIO-17, the proposed project would not cause any species of special concern or rare species to trend towards becoming listed.

d) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The Morrill Canyon Bridge and Strawberry Creek Bridge are not within or located directly adjacent to Multiple Species Habitat Conservation Plan (MSHCP) Criteria Cells and, thus, will not contribute to Criteria Cell connectivity and conservation objectives. Based on the *Natural Environment Study* (NES) prepared for the project, the Morrill Canyon Bridge BSA consists of high terrestrial connectivity. Query results indicate that the Morrill Canyon Bridge BSA is not within an area identified as a Natural Landscape Block, Essential Habitat Connectivity Area, or Potential Riparian Connection in the California Essential Habitat Connectivity Project. The majority of Strawberry Creek Bridge PIA consists of moderate connectivity. Query results indicate that Strawberry Creek Bridge BSA is within an area identified as an Essential Habitat Connectivity Area in the California Essential Habitat Connectivity Project. Furthermore, in reviewing data layers, neither the Morrill Canyon Bridge or Strawberry Creek Bridge are

identified as wildlife movement barrier priorities. While the project poses no risk of permanently decreasing the existing habitat connectivity, work associated with the two bridge replacements may temporarily impact wildlife movement due to construction disturbance and noise.

e) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The proposed project would have no conflict with any local policies or local ordinance. As such, no impacts are anticipated in this regard.

f) Less Than Significant With Mitigation Incorporated.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Morrill Canyon Bridge and Strawberry Creek Bridge are located within the Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP). Based on the presence of suitable habitat, surveys were conducted for the following:

- Morrill Canyon Bridge: arroyo toad, narrow endemic plants (NEPS) including many-stemmed dudleya, California Orcutt grass, spreading navarretia, San Miguel savory, Hammitt's clay-cress, and Wright's trichocoronis; and species associated with riparian/riverine/vernal pool resources, including riparian bird surveys.
- Strawberry Creek Bridge: mountain yellow-legged frog, NEPS including Johnston's rock cress, Munz's mariposa lily, and San Jacinto Mountains Bedstraw, and species associated with riparian/riverine/vernal pool resources, including riparian bird surveys.

Surveys were conducted for the MSHCP resources in the Morrill Canyon Bridge, and detected species include arroyo toad and Coast Range newts, which are anticipated to be impacted by the project. The project will impact mountain yellow-legged frog habitat in the Strawberry Creek Bridge PIA. In the Morrill Canyon Bridge PIA, there will be up to 0.021 acre of permanent impacts and 0.066 acre of temporary impacts on riverine resources that include Coast Range newt-occupied habitat and 0.183 acre of permanent impacts and 0.973 acre of temporary impacts on potential arroyo toad breeding and upland habitats with implementation of Morrill Canyon Bridge Alternative M1. Implementation of Strawberry Creek Bridge Alternative S1 would result in a total of 0.306 acre of riverine resources disturbance within the project footprint. Implementation of Strawberry Creek Bridge Alternative S3 would result in a total of 0.316 acre of riverine resources disturbance within the project footprint. The project will mitigate for temporary impacts on arroyo toad-occupied habitat and riverine habitat through restoration and enhancement of onsite riparian/riverine areas. A Habitat Mitigation and Monitoring Plan (HMMP) will be prepared that will detail the restoration techniques, identify success criteria, and provide for adaptive management techniques. Permanent impacts on arroyo toad-occupied habitat and riverine habitat are proposed to be mitigated through the purchase of credits or MSHCP permittee-responsible creation and preservation.

Plummer's mariposa-lily was detected outside the Strawberry Creek Bridge BSA and will not be impacted. No NEPS were detected in either BSAs. The project will be consistent for all MSHCP covered plant species by avoiding Plummer's mariposa lily through the implementation of avoidance and minimization measures. Wilson's warbler was detected only as a spring migrant

as it only breeds at very high elevation in the MSHCP area and not at the project sites. Yellow warblers were detected and likely singing on territory at both bridge sites. Golden eagle was detected only as a flyover and it is unlikely to nest near project sites. Southern California rufous crowned sparrow was detected and may nest in upland habitats of the project site. The project will be consistent with MSHCP requirements for nesting birds through the implementation of avoidance and minimization measures. The project would also affect natural vegetation communities: Southern Coast Live Oak Riparian Forest and Southern Sycamore Alder Riparian Woodland. To minimize and avoid potential impacts on natural communities potentially occurring near the project site, the project will implement all applicable Caltrans BMPs and 2018 Caltrans Standard Specifications (or latest version).

The project would pose no risk of permanently decreasing the existing habitat connectivity; work associated with the Morrill Canyon Bridge and Strawberry Creek Bridge may temporarily impact wildlife movement due to construction disturbance including noise. Neither the Morrill Canyon Bridge BSA nor the Strawberry Creek Bridge BSA are within or located directly adjacent to any Criteria Cells and, thus, will not contribute to any connectivity to the Criteria Cells or conservation objectives.

The WRCMSHCP will be satisfied through the implementation of avoidance, minimization, and mitigation measures, and any additional measures required by the Wildlife Agencies including CDFW and USFWS, from MSHCP consistency approval. The project will also develop and implement an Arroyo Toad Relocation Plan, preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report, implementation of the construction guidelines provided in the WRCMSHCP Volume 1, Section 7.5.3, and Standard Best Management Practices outline in the WRCMSHCP Appendix C.

V. Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

CEQA Significance for Cultural Resources

a) Less Than Significant with Mitigation Incorporated.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: A reconnaissance survey was conducted in November 2019 to field verify previously recorded resources and disturbances. The National Register of Historic Places (NRHP), California

Register of Historical Resources (CRHR), California Historic Landmarks, California Points of Historical Interest, historic topographic and aerial maps, and California Historical Resources Information System (CHRIS) were all consulted for the project. The study efforts resulted in the identification of five cultural resources within the Area of Potential Effect (APE) as follows:

- CA-RIV-8089H (P-33-015321), SR-74 Pines to Palms Highway: Eligible for NRHP.
- CA-RIV-10575H (P-33-006976), Strawberry Creek Bridge No. 56-0180: Category 2 bridge: Eligible for NRHP.
- CA-RIV-10574H (P-33-007236), Morrill Canyon Bridge No. 56-0169: Category 2 bridge: Eligible for NRHP.
- P-33-007234, Ortega Highway: Ineligible for NRHP.
- CA-RIV-8046H (P-33-15132), Keen Camp Road: Exempt Property Type: 1 Isolated segment of bypassed or abandoned road.

The proposed project has the potential to affect three of the five cultural resources identified within the APE: Strawberry Creek Bridge, Morrill Canyon Bridge, and the Pine to Palms Highway (CA-RIV-8089H). The Morrill Canyon Bridge, built in 1931, is noted in the most recent Caltrans Bridge Inventory as a Category 2 structure, meaning it is eligible for the NRHP. The Strawberry Creek Bridge was built in 1929 and also is noted in the most recent Caltrans Bridge Inventory as a Category 2 structure. Thus, both bridges are eligible for the NRHP, and in the case of Morrill Canyon Bridge, the structure was found to be individually eligible as a significant example of a rare bridge type, a closed spandrel masonry arch bridge. Strawberry Creek Bridge is located on the Pines-to-Palms Highway, which is a historic linear resource, and the bridge is eligible as a contributor to the Pines-to-Palms Highway; however, the bridge has not been individually evaluated. The project, depending on alterative chosen, involves the replacement of bridge rails through removal and replacement of the bridge railings, and/or full bridge replacement at Morrill Canyon Bridge and Strawberry Creek Bridge. The project would result in the significance of a historical resource being materially impaired and would affect its eligibility to the CRHR. Therefore, under CEQA, the proposed project would have a significant impact. To mitigate the significant impact, measures would be incorporated into the proposed project.

b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The project site is located at the Morrill Canyon Bridge and Strawberry Creek Bridge, which experience consistent high-velocity fluvial occurrences. Additionally, the APE is mostly cut into Cretaceous-granite bedrock along the side slopes of the mountains. Therefore, most of the study area is underlain by, and cut into, granitic bedrock, ultimately placing the APE and all proposed project activities well below any probable cultural layers. These factors create an unlikely potential for archaeological preservation. As such, the current study suggests that the probability of encountering in situ cultural deposits during ground-disturbing activities associated with the project is extremely low.

c) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Construction of the proposed project would result in vertical disturbance 3.6 feet (1.1 meter) above the pavement to a maximum depth of 26.2 feet (8 meters) below the pavement for construction of detours, bridge railing, and/or bridge replacement. As mentioned above, most of the study area is underlain by, and cut into, granitic bedrock, placing the APE and all proposed project activities well below any probable cultural layers with unlikely potential for archaeological preservation. If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop within 60 feet of any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to California Public Resources Code Section 5097.98, will then notify the Most Likely Descendant (MLD). At this time, the person who discovered the remains will contact Andrew Walters, District Environmental Branch Chief [(909) 383-2647] or Gary Jones, District Native American Coordinator [(909) 383-7505], so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable (refer to measure CR-2). Implementation of this standard measure would ensure that impacts do not occur due to project implementation.

Measures CR-1 and CR-2, which are standard measures for all Caltrans projects, are included to ensure that potential effects on cultural resources and human remains, should they be discovered during construction, would be avoided.

CR-1 If buried cultural resources are encountered during project activities, it is Caltrans' policy that all work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find.

CR-2 In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendant (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, District Environmental Branch Chief: (909) 383-2647 and Gary Jones, District Native American Coordinator: (909) 383-7505. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

VI. Energy

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

CEQA Significance Determination for Energy

a), b) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The project would use a minimal amount of energy during the proposed construction activities, such as excavation, road cut and fill, demolition, and other construction-related activities. Construction-related effects on energy would likely be greatest during the site preparation phase because of energy use associated with the excavation, handling, and transport of soil and construction debris to and from the site. However, these construction activities would be short term in duration and would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction.

During operation, the project would accommodate existing traffic demand, but would not create new demand, directly or indirectly. The project would also not reduce congestion and/or improve the level of service of traffic as no additional lanes would be added. As such, operation of the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

VII. Geology and Soils

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

CEQA Significance Determination for Geology and Soils

a i), a ii), a iii), a iv) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Both bridges are located in hilly, mountainous terrain. The County of Riverside General Plan, Elsinore Area Plan, Slope Instability Map indicates that Morrill Canyon Bridge is not located within an area designated for slope instability. The County of Riverside General Plan, Riverside Extended Mountain Area Plan (REMAP), Slope Instability Map indicates that Strawberry Creek Bridge is partially located in an area designated as Low to Locally Moderate Susceptibility to Seismically Induced Landslides and Rockfalls. Based on the County of Riverside General Plan, Elsinore Area Plan, Seismic Hazards Map, the Morrill Canyon Bridge is not located in any liquefaction susceptible designated area and the Strawberry Creek Bridge is located in an area designated as Deep Groundwater with Moderate levels of liquefaction susceptibility. Furthermore, the proposed project site is located in the seismically active Southern California region. However, construction and operation of the project have no potential to rupture a known earthquake fault, cause strong seismic ground shaking, or cause seismic-related ground failure, including liquefaction. Nevertheless, during the life of the project, seismic activity associated with active faults can be expected to generate moderate to strong ground shaking at the site during active earthquakes. Conformance with the California Building Code, as well as adherence to standard engineering practices and the Department's design criteria, would reduce the effects of seismic ground shaking to the project. The proposed project would implement the Department's current highway and structure seismic design standards.

b) No Impact.

*Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3:*Soils in the project area consist of Capistrano Sandy Loam, Cieneba Rocky Sandy Loam, and Soboba-Hanford Family Association. Construction of the project would result in excavated soil that would be exposed, and there would be an increase in the potential for soil erosion compared to existing conditions. During a storm event, unprotected soils including slopes would be subject to erosion. Temporary impacts related to construction activities could occur along the project limits due to grading and construction of cut and fill slopes at Morrill Canyon Bridge and Strawberry Creek Bridge. Soil erosion potential would be addressed through the implementation of standardized measures as part of the project design. These include erosion control BMPs as part of the Stormwater Pollution Prevention Plan (SWPPP). With implementation of these standardized measures, no short-term or indirect adverse impacts related to soil compaction or erosion would occur during construction of the project at either Morrill Canyon Bridge or Strawberry Creek Bridge. Refer to measures WQ-1 through WQ-5.

c), d) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The project is located in an area consisting of hilly, mountainous terrain. The County of Riverside General Plan, Elsinore Area Plan, Slope Instability Map indicates that Morrill Canyon Bridge is not located within an area designated for slope instability. The County of Riverside General Plan, Riverside Extended Mountain Area Plan (REMAP), Slope Instability Map indicates that Strawberry Creek Bridge is partially located in an area designated as Low to Locally Moderate Susceptibility to Seismically Induced Landslides and Rockfalls. Based on the County of Riverside General Plan, Elsinore Area Plan, Seismic Hazards Map, the Morrill Canyon Bridge is not located in any liquefaction susceptible designated area and the Strawberry Creek Bridge is located in an area designated as Deep Groundwater with Moderate levels of liquefaction susceptibility. No other geological hazards pertaining to the project area were identified in the County of Riverside General Plan, Elsinore Area Plan or REMAP. The project would follow the latest design requirements to minimize any potential effects related to liquefaction and seismically induced settlement. With incorporation of the avoidance and minimization measures listed in GEO-1 through GEO-3, no direct or indirect adverse, long-term impacts would occur as a result of the proposed project.

e) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The proposed project would not implement the use of septic tanks or alternative waste water disposal systems. No impacts are expected in this regard.

f) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Most of the project is underlain by, and cut into, granitic bedrock. As such, and based on the HPSR prepared for the project, it was concluded that the probability of encountering existing cultural

deposits during ground-disturbing activities associated with the project is considered extremely low. As such, impacts on paleontological resources is considered less than significant.

VIII. Greenhouse Gas Emissions

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

CEQA Significance Determination for Greenhouse Gas Emissions

a), b) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Construction activities would generate approximately 2,171 metric tons of carbon dioxide equivalent (CO_2e) over the approximately 11 month construction period, while project operations would not result in any increase in greenhouse gas (GHG) emissions. Because the project will replace two bridges without increasing roadway capacity, there would be no increase in long-term GHG emissions due to project operations. Environmental impacts resulting from project GHG emissions are considered to be less than significant.

Caltrans continues to be involved on the Governor's Climate Action Team as the California Air Resources Board (CARB) works to implement Executive Orders (EOs) S-3-05 and S-01-07 and help achieve the targets to set forth in Assembly Bill (AB) 32. EO B-30-15, issued in April 2015, and Senate Bill (SB) 32 (2016) set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. Caltrans remains committed to implementing measures to reduce the potential effects of the project. Caltrans is also involved in other major initiatives that are underway to help meet these targets, as discussed in detail in Section 3.3 Climate Change, of this document. Strategies that will be implemented in the project to reduce GHG emissions and potential climate change impacts from the project are summarized in measure GHG-1. As such, the project would not be conflicting with any applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions.

IX. Hazards and Hazardous Materials

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

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

CEQA Significance Determinations for Hazards and Hazardous Materials

a), b), d) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Implementation of the proposed project is not expected to create a significant hazard to the public or environment and is not located on a list of hazardous materials sites. The project involves replacing Morrill Canyon Bridge and Strawberry Creek Bridge on SR-74 in Riverside County because the bridges have nonstandard bridge rails that do not meet current federal crash standards and nonstandard lane and shoulder widths. No storage of chemicals or hazardous materials would occur. The proposed project would ensure the safety and mobility for the traveling public and provide continued connectivity along SR-74.

c), e), g) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: There are no schools located within a quarter-mile of the project site. The proposed project is not within two miles of a public airport or public use airport or within the vicinity of a private airstrip. The project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

f) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The existing bridges were identified in the Structure Replacement and Improvement Needs (STRAIN) Report in 2014 as having several longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arches. Furthermore, both structures have nonstandard lane and shoulder widths. Due to the significant deterioration and nonstandard features found in both bridges, there is a need to replace these structures to meet current design, crash, and safety standards and to provide continued connectivity along SR-74 for motorists. As such, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Emergency response times may be temporarily affected during the construction phase of the project. However, construction impacts would be addressed with implementation of a Traffic Management Plan, which would minimize temporary impacts and ensure coordination with emergency service providers during the construction period.

X. Hydrology and Water Quality

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
(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	☐	☐	☐	☒
(iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

CEQA Significance Determination for Hydrology and Water Quality

a), b), c i), c ii), c iii), c iv), d), e) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: There would be no permanent water quality impacts with implementation of the project. The construction of the project would not have effects on flows. Implementation of the project would ensure the safety and mobility for the traveling public while providing continued connectivity along SR-74. The project would not place housing or structures within a 100-year flood hazard area and would not expose people or structures to a significant risk of loss, injury, or death as a result of flooding.

XI. Land Use and Planning

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

CEQA Significance Determinations for Land Use and Planning

a), b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Implementation of the project would ensure the safety and mobility for the traveling public by providing standard lane and shoulder width to meet current design, crash, and safety standards. The project would not divide an established community, as SR-74 already exists within the area. The project is consistent with statewide, regional, and local mobility goals and is being coordinated with impacted governmental, regulatory, and local agencies in the area to ensure consistency with specific local goals and objectives. The project is also consistent with regional planning goals. Furthermore, the configuration of the existing roadway facility would not be affected or impacted by the proposed project. As such, the proposed project would not conflict with any applicable land use plan, policy, or regulation.

XII. Mineral Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

CEQA Significance Determinations for Mineral Resources

a), b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: According to the County of Riverside General Plan Land Use Map, the project is not located in an area designated as Mineral Resources.

XIII. Noise

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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 and expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

CEQA Significance Determinations for Noise

a), b), c) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3. The San Juan Trailhead and Bear Canyon Trailhead are located approximately a quarter mile south in the vicinity of the Morrill Canyon Bridge. The South Fork Trail 2E17 is located approximately two miles south of the Strawberry Creek Bridge. The Ortega Oaks Candy Store and Goods (34950 Ortega Highway) and the Ortega Oaks RV Park and Campground (34040 Ortega Highway) are also located along SR-74, south of the Morrill Canyon Bridge. No noise impacts are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications 14.8-02. Construction-related noise would be short term and intermittent during the construction period. Therefore, noise impacts would last only during the duration of

construction and would not affect potential noise-sensitive receptors in the vicinity including any campgrounds and recreational users. The project would also not expose people to or generate noise levels in excess of standards established in a general or noise ordinance, or applicable standards of other agencies. Due to the nature of the project, there would be no permanent increase in ambient noise levels in the project vicinity, which is not located within an airport land use plan's jurisdiction or in the vicinity of a private airstrip.

XIV. Population and Housing

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

CEQA Significance Determinations for Population and Housing

a), b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The proposed project is located on an existing interstate facility near existing roadways, providing access to existing development. The project would consist of replacing the Morrill Canyon Bridge and the Strawberry Creek Bridge on SR-74 providing for standard lane and shoulder widths. The project would not necessitate the relocation of any existing developments or people. The proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly; therefore, no impacts are anticipated.

XV. Public Services

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

CEQA Significance Determinations for Public Services

a) Fire protection, police protection, schools, and parks. No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The Riverside County Fire Department in cooperation with CAL FIRE provides fire and emergency services in the area of Morrill Canyon Bridge. The nearest fire station to Morrill Canyon Bridge is the Riverside County Fire Department Station 51 located at 32353 Ortega Highway in Lake Elsinore. The Riverside County Sheriff's Department provides police services in the area of Morrill Canyon Bridge, and the nearest sheriff's station is the Lake Elsinore Station, located at 333 Limited Avenue in Lake Elsinore. Near the Strawberry Creek Bridge, the Cranston Station and the Keenwild Station of the San Bernardino National Forest are the nearest fire stations. The nearest sheriff's station to Strawberry Creek Bridge is the Riverside County Sheriff's Department's Hemet Station, located at 43950 Acacia Avenue in Hemet. The San Juan Loop Trailhead and Bear Canyon Trailhead are located approximately a quarter mile south in the vicinity of the Morrill Canyon Bridge. The South Fork Trail 2E17 is located approximately two miles south of the Strawberry Creek Bridge. No school sites are located near either bridge location.

The proposed project would not result in an increase in population, result in the need for additional facilities, or increase response times of emergency personnel. However, construction activities have the potential to result in temporary disruptions and delays during the construction period. Access to trails and trailheads may be temporarily affected during construction of the build alternatives. Construction activities could also lead to an increase in delay times for emergency response vehicles. However, with the implementation of a Traffic Management Plan, as previously mentioned, temporary access impacts on these public facilities would not occur. Once the project is completed, the project will ensure the safety and mobility for the traveling public and provide continued connectivity along SR-74 for motorists, including emergency service vehicles.

a) Other Public Facilities. No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: No impacts are anticipated to occur on other public facilities.

XVI. Recreation

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	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?	☐	☐	☐	☒

CEQA Significance Determination for Recreation

a), b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The proposed project does not have the capacity to generate a substantial increase in the use of any existing neighborhood parks, regional parks, or other recreational facilities such that physical deterioration would occur, nor would it require the construction or expansion of existing recreational facilities.

XVII. Transportation

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

CEQA Significance Determinations for Transportation

a), c), d) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The project would consist of replacing Morrill Canyon Bridge and Strawberry Creek on SR-74 in Riverside County and providing standard 12-foot lane widths and minimum 4-foot shoulder widths, which may have a positive effect on the accident rate. The new bridge structures and rail will offer better protection to errant vehicles by providing a stronger and safe bridge rail configuration. At both bridge locations, SR-74 is not a bicycle route and there are no pedestrian paths available for the public. The project would not increase traffic because no new land uses are proposed, and it would not create new demand. Overall, the project would ensure the safety and mobility for the traveling public and provide continued connectivity along SR-74. The

proposed improvements for the proposed project are consistent with statewide, regional, and local mobility goals, and the project is being coordinated with impacted governmental, regulatory, and local agencies in the area to ensure consistency with specific local goals and objectives.

Construction activities have the potential to result in temporary, localized, site-specific disruptions during the construction period. This could lead to an increase in delay times for emergency response vehicles during construction. However, the proposed project would include the preparation and implementation of a Traffic Management Plan. Impacts would be less than significant during the construction period.

b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The project itself would not generate new vehicle trips and therefore would not have a significant impact on air quality in the air basin. The project is listed in Table 1, Carbon Monoxide (CO) Protocol, as such, it is exempt from all air emissions analysis.

XVIII. Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☐	☒

CEQA Significance Determinations for Tribal Cultural Resources

a), b) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: No Tribal Cultural Resources were identified as a result of consultations conducted with pertinent Native American tribal representatives. No prehistoric cultural resources have been identified over multiple cultural studies, including current cultural studies completed for the proposed project. Additionally, the potential to encounter prehistoric cultural materials during project-related activities is considered to be low. If prehistoric cultural materials are identified during

project-related activities, interested Native American Tribes will be notified. As such, impacts on Tribal Cultural Resources are not anticipated to occur.

XIX. Utilities and Service Systems

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

CEQA Significance Determinations for Utilities and Service Systems

a), b), c), d), e) Less than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Construction of the proposed project is not expected to generate the need for additional wastewater treatment facilities or exceed wastewater treatment requirements of the Regional Water Quality Control Board. No new or expanded entitlements would be needed for the project. The replacement of the two bridges would not have any effects on the existing flows. The project would require the use of a local landfill to dispose of any demolition materials during construction. Excavated material for this project will be reused to build the embankments. The existing asphalt pavement that is removed as a result of the project is expected to be recycled and reused in the construction to the extent possible. The proposed project would be in compliance with all federal, state, and local solid waste statutes and regulations.

XX. Wildfire

If located in or near state responsibility areas or lands classified as very high fire severity zones, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

CEQA Significance Determinations for Wildfire

a) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: Construction activities have the potential to result in temporary, localized, site-specific disruptions during the construction period. This could lead to an increase in delay times for emergency response vehicles. Construction impacts would be short-term, lasting only the length of construction, and would cease upon completion of construction. The project includes the preparation of a Traffic Management Plan that would ensure that emergency access impacts would not occur. The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation; therefore, less than significant impacts are anticipated.

b), d) Less Than Significant Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: According to the County of Riverside General Plan, Elsinore Area Plan, Wildfire Susceptibility Map, the Morrill Canyon Bridge area is located in an area designated as Very High/High/Moderate Fire Hazard Severity Zones (FHSZ) by the California Department of Forestry and Fire Protection. According to the County of Riverside, REMAP, Wildfire Susceptibility Map, the Strawberry Creek Bridge area is located in an area designated as Very High/High/Moderate FHSZ.

As the proposed project would result in the replacement of the Morrill Canyon Bridge and Strawberry Creek Bridge, it would not expose motorists to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The project is not anticipated to 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.

c) No Impact.

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternatives S1 and S3: The proposed project would not 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 on the environment. No impacts are anticipated in this regard.

XXI. Mandatory Findings of Significance

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to 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?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

CEQA Significance Determinations for Mandatory Findings of Significance

a) Less Than Significant With Mitigation Incorporated.

The proposed project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species. In the Morrill Canyon Bridge PIA, up to 0.021 acre of permanent impacts and 0.066 acre of temporary impacts on riverine resources that include arroyo toad and Coast Range newt occupied habitat are anticipated. Impacts on three California sycamores, 57 coast live oaks, and one Goodding's black willow are also anticipated. For the Strawberry Creek Bridge PIA, there will be up to 0.1 acre of permanent impacts and 0.2 acre of temporary impacts on riverine resources that include potential mountain yellow-legged frog habitat, and impacts on five White alders, eight California sycamores, five interior live oaks, and one Goodding's black

willow. With implementation of avoidance and minimization measures BIO-1 through BIO-17, the proposed project would not cause any species of special concern or rare species to trend towards becoming listed.

b), c) No Impact.

The proposed project would not result in cumulatively considerable impacts when combined with past, present, and reasonably foreseeable future projects and therefore would have no cumulative impacts. The proposed project would not have environmental effects that would cause substantial effects on human beings, either directly or indirectly, as the purpose of the project is to ensure the safety and mobility for the traveling public and provide continued connectivity along SR-74.

3.3 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to GHG emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2.

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 GHG 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.

Regulatory Setting

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

Federal

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

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

The FHWA recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability." (FHWA n.d.) 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 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

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. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG 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 United States. Fuel efficiency standards directly influence GHG emissions.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

AB 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in

September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent ($MMTCO_2e$).[1] Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 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."

AB 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.

[1] GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called "carbon dioxide equivalent" (CO_2e). The global warming potential of CO_2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO_2.

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 travelled, 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 ARB 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 GHG emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

Environmental Setting

SR-74 is a two-lane undivided conventional highway with narrow right shoulders and steep embankments; a significant portion of the highway traverses mountainous terrain. It begins at I-5 near San Juan Capistrano in Orange County and proceeds easterly to I-10 north of Palm Desert in Riverside County. Within Riverside County, SR-74 is 101.5 miles in length beginning at the Riverside-Orange County Line and ending at Palm Desert city limits, with 5.5-miles of SR-74 unconstructed between SR-111 and I-10. The project is located on two separate rural portions of SR-74, the first between PM 2.5 and 3.5 and the second between PM 53.0 and 54.0 in Riverside County. The two bridge locations are located in mountainous terrain with dense vegetation, narrow lanes, and shoulders within side slope-road-cuts and located on or near blind curves. At both project locations SR-74 is not a bicycle route, and there are no pedestrian paths available for the public. Additionally, SR-74 is not an Extralegal Load Network (ELLN) route. It is a Federal-Aid primary route and is included in the Freeway and Expressway System.

National GHG Inventory

The U.S. EPA prepares a national GHG 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 GHGs in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990–2016 inventory found that of 6,511 million metric tons (MMT) CO_2e GHG emissions in 2016, 81 percent consist of CO_2, 10 percent are CH_4, and 6 percent are N_2O; the balance

consists of fluorinated gases (U.S. EPA 2018). In 2016, GHG emissions from the transportation sector accounted for nearly 28.5 percent of U.S. GHG emissions. Figure 3-1 below provides an overview of U.S. 2016 GHG emissions by pollutant and a breakdown of the total U.S. 2016 GHG emissions by sector.

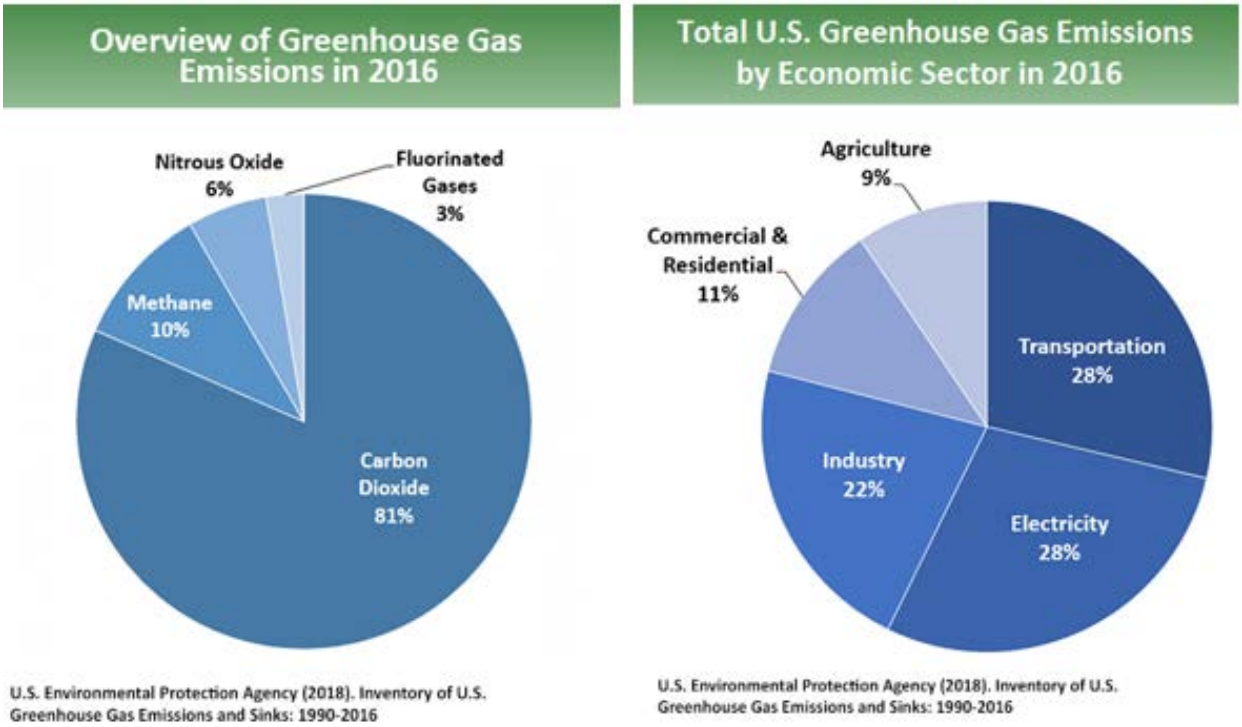


Figure 3-1. U.S. 2016 Greenhouse Gas Emissions

State GHG Inventory

CARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2019 edition of the GHG emissions inventory found total California emissions of 424.1 $MMTCO_2e$ for 2017, with the transportation sector responsible for 41 percent of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (CARB 2019a).

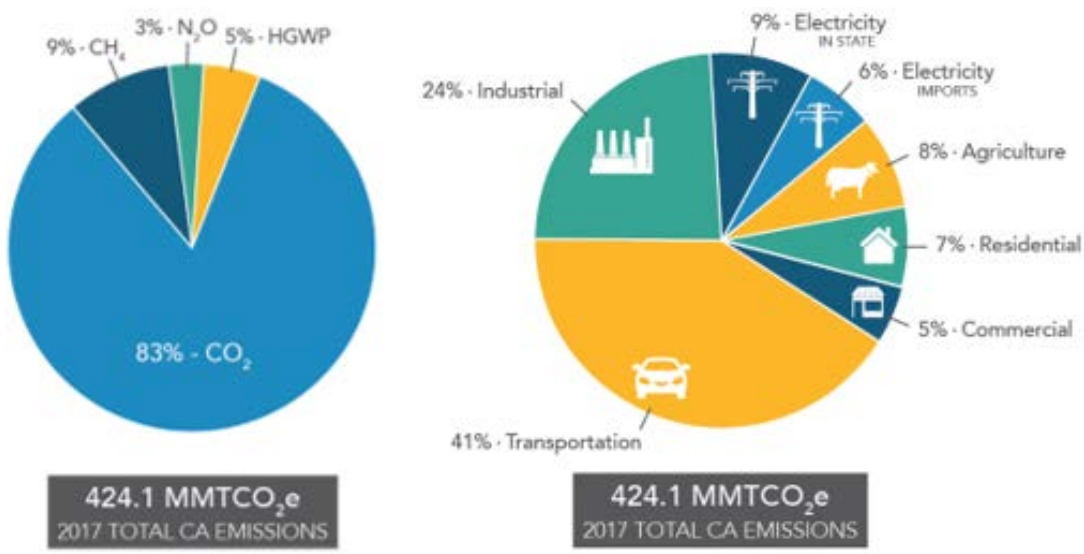
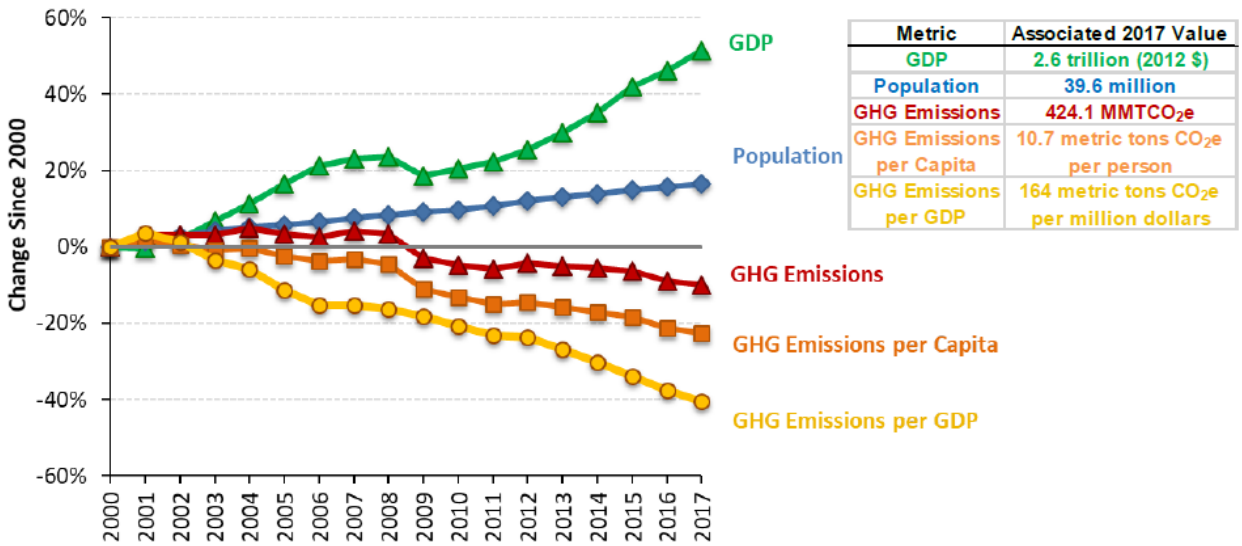


Figure 3-2. California 2017 Greenhouse Gas Emissions



Metric	Associated 2017 Value
GDP	2.6 trillion (2012 $)
Population	39.6 million
GHG Emissions	424.1 $MMTCO_2e$
GHG Emissions per Capita	10.7 metric tons CO_2e per person
GHG Emissions per GDP	164 metric tons CO_2e per million dollars

Figure 3-3. Change in California Gross Domestic Product, Population, and GHG Emissions Since 2000

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every five years. CARB 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 EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

Regional Plans

The regional plans and policies within the project area are summarized in Table 3-1 below. CARB sets regional targets for California's 18 MPOs to use in their RTP/SCSs to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the 2016 RTP/SCS (SCAG 2016) of the Southern California Association of Governments (SCAG) (Amendment #3) as RTP ID RIV071254CARB's regional reduction target for SCAG as of October 2018 is 8 percent by 2020 and 19 percent by 2035, compared to 2005 levels (CARB 2019b). (The 2016 RTP/SCS used earlier targets of a 9 percent per capita reduction by 2020 and a 16 percent per capita reduction by 2035. It should be noted that the SCAG planning region comprises Imperial, Orange, San Bernardino, and Ventura Counties in addition to Riverside County, and that targets apply in the region as a whole and to all GHG emission sources, not individual counties or transportation alone.) The RTP/SCS concluded that implementing the plan would result in an 8 percent per capita GHG reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040.

The Riverside County Climate Action Plan (Riverside County Planning Department 2018) serves as a tool to implement the goals and policies of the various elements of the Riverside County General Plan related to GHG emissions. It provides a list of specific actions that will reduce countywide GHG emissions consistent with the reduction targets of AB 32 (Riverside County Planning Department 2018:1-3).

Table 3-1. Regional Greenhouse Gas Reduction Policies

Title	GHG Reduction Policies or Strategies
Southern California Association of Governments 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (adopted April 7, 2016)	• Preserve Our Existing System • Manage Congestion • Transportation Systems Management
Riverside County General Plan	**Land Use Element** • Policy LU 2.1k(f): f. Site development to capitalize upon multi-modal transportation opportunities and promote compatible land use arrangements that reduce reliance on the automobile. • Policy LU 11.4: Provide options to the automobile in communities, such as transit, bicycle and pedestrian trails, to help improve air quality. • Policy LU 13.4: Incorporate safe and direct multi-modal linkages in the design and development of projects, as appropriate. **Circulation Element,** • Policy C 1.2: Support development of a variety of transportation options for major employment and activity centers including direct access to transit routes, primary arterial highways, bikeways, park-n-ride facilities and pedestrian facilities. • Policy C 1.7: Encourage and support the development of projects that facilitate and enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle lanes and paths, and mixed-use community centers. • Policy C 5.2: Encourage the use of drought-tolerant native plants and the use of recycled water for roadway landscaping. • Policy C 20.14 (Previously C 20.12): Encourage the use of alternative non-motorized transportation and the use of non-polluting vehicles.

Title	GHG Reduction Policies or Strategies
Riverside County General Plan Amendments (Adopted July 17, 2018)	**Air Quality Element** • Policy AQ 20.1: Reduce VMT by requiring expanded multi-modal facilities and services that provide transportation alternatives, such as transit, bicycle and pedestrian modes. Improve connectivity of the multi-modal facilities by providing linkages between various uses in the developments. • Policy AQ 20.3: Reduce VMT and GHG emissions by improving circulation network efficiency. **Circulation Element (Amendment No. 960 – Public Review Draft, February 2015)** • Policy C 1.8: Ensure that all development applications comply with the California Complete Streets Act of 2008 as set forth in California Government Code Sections 65040.2 and 65302.
Riverside County Climate Action Plan (2018)	**Transportation Measures** • R2-T5: Roadway Improvements including Signal Synchronization and Transportation Flow Management • R2-T6: Provide a Comprehensive System of Facilities for Non-motorized Transportation • R2-T8: Anti-Idling Enforcement

Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the State Highway System and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH_4, and N_2O are emitted during fuel combustion. In addition, a small amount of HFC emissions are 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 Assn. 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 proposed project is to replace two existing bridge structures, and it would not increase the vehicle capacity of the roadway. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on SR-74, no increase in vehicle miles traveled (VMT) would occur as result of

project implementation. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

Construction Emissions

Construction GHG emissions would result from material processing, onsite construction equipment, and traffic delays due to construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

The *Road Construction Emissions Model* (Sacramento Metropolitan Air Quality Management District 2016) was used to estimate GHG emissions from project construction. Project construction would generate an estimated 2,171 metric tons over the approximately 11-month construction period, which would be approximately 0.02 percent of Riverside County's estimated 2020 GHG Business as Usual inventory.

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 they are aware of and will comply with all CARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes, including those of the South Coast Air Quality Management District (SCAQMD). Certain common regulations that reduce construction vehicle emissions, such as equipment idling restrictions and proper maintenance of construction equipment, also help reduce GHG emissions.

CEQA Conclusion

While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG reduction measures, the impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

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 GHG emissions targets. Former Governor Edmund G. Brown

promoted GHG reduction goals, as shown on 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*.

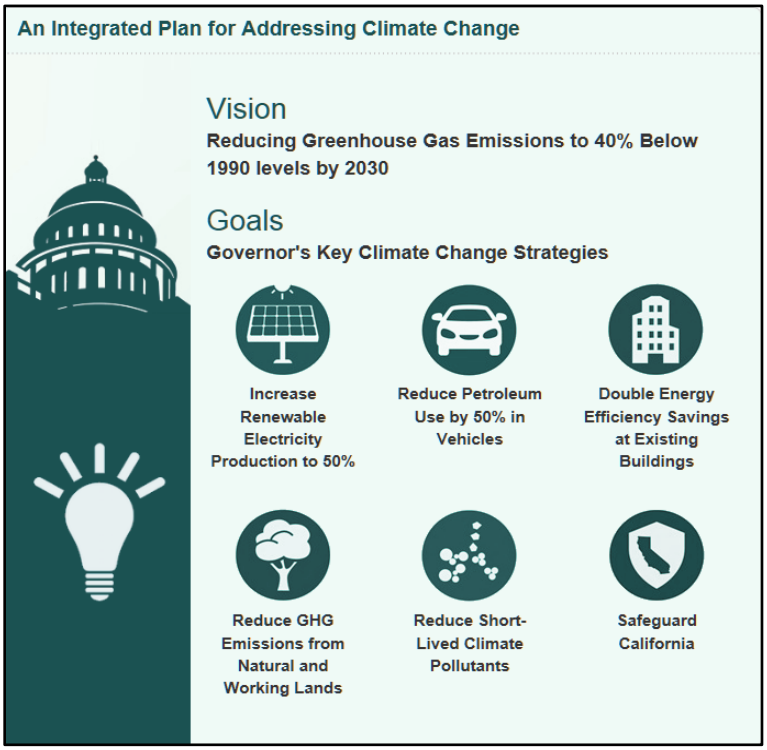


Figure 3-4. California Climate Strategy

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of VMT. 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 (State of California 2019).

In addition, SB 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 above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the CARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet the state's future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO_2 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.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

Caltrans Strategic Management Plan

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the state's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Activities to Address Climate Change* (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

Project-Level GHG Reduction Strategies

The following avoidance and minimization measures will also be implemented in the project to reduce GHG emissions and potential climate change impacts from the project.

GHG-1: Idling time for lane closure during construction is restricted to 10 minutes in each direction; in addition, the contractor must comply with SCAQMD's rules, ordinances, and regulations regarding air quality restrictions.

GHG-2: The project will incorporate the use of energy efficient lighting.

GHG-3: Bids will be solicited that include use of energy and fuel-efficient fleets in accordance to current practices.

GHG-4: The project will maintain equipment in proper tune and working condition.

Adaptation

Reducing GHG 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 expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and variability 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 FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGRCP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 USC 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" (USGCRP 2018).

The June 2011 U.S. Department of Transportation (DOT) Policy Statement on Climate Adaptation committed the U.S. DOT to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions." (U.S. DOT 2011.)

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events,* December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems.

FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels. (FHWA 2019.)

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* (State of California 2018) is the state's latest 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 expected 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.[2] 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.

EO 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.

EO 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* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate "sea-level rise (SLR) 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.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California's infrastructure. At the direction of EO 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.

AB 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 Assessments

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 expected 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 expected 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 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 proposed project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts on transportation facilities due to projected sea-level rise are not expected.

Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation, as well as the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings and interagency coordination meetings. In addition to consultation with participating agencies, the environmental document process will include public coordination by providing the public an opportunity to comment on the document during the public review period. This chapter summarizes the results of efforts to identify, address, and resolve project-related issues through early and continuing coordination.

4.1 Consultation and Coordination

Meetings and/or consultations with the resource agencies listed below have occurred in conjunction with development of the project.

4.1.1 U.S. Fish and Wildlife Service

A U.S. Fish and Wildlife Service (USFWS) species list was generated from the Information for Planning and Consultation database on November 9, 2020. A copy of the USFWS species list is included in Section 4.2, Agency Coordination Documentation.

4.1.2 Native American Coordination

4.1.2.1 Native American Heritage Commission

On September 17, 2019 the Native American Heritage Commission (NAHC) was contacted and asked to provide information regarding sacred lands and a list of Native American organizations/individuals for contact. The NAHC responded on October 7, 2019, stating that the commission was unaware of any sacred lands in the project area. The NAHC provided a list of local tribal contacts for further consultation.

4.1.2.2 Native American Tribes

Request-for-information letters were sent to several Native American groups, as identified through coordination with the NAHC, in support of the cultural resources studies for the proposed project. More specifically, these letters were mailed to the Native American entities listed below. A detailed record of the correspondence efforts with Native American groups is included in the Historic Property Survey Report (HPSR) and summarized below.

In accordance with Section 106 of the National Historic Preservation Act, the Department sent initial consultation letters through the U.S. Postal Service to the following individuals:

- Dr. Shasta Gaughen, Tribal Historic Preservation Officer for Pala Band of Mission Indians on October 10, 2019. Caltrans received a response on October 30, 2019, declaring the project is not within the boundaries of the Pala Reservation or their Traditional Use Area and deferred consultation to tribes in closer proximity.
- Destiny Colocho, Tribal Historic Preservation Officer for Rincon Band of Mission Indians on October 10, 2019. Caltrans received a response indicating that there are no place names proximal to the project area, but that Strawberry Creek Bridge is located in a culturally sensitive area associated with Luiseno divinity. The Rincon Tribe recommended appropriate measures be taken to address impacts on cultural resources, such as archaeological and tribal monitoring, a treatment plan for potential discoveries, and a reburial location for encountered cultural resources. Caltrans noted the Tribe's recommendation; however, no prehistoric cultural resources have been identified over multiple studies including the current studies performed for the project. Additionally, the potential to encounter prehistoric cultural material during project-related activities is low. Should prehistoric cultural materials be encountered during project-related activities Caltrans will notify the Rincon Tribe and other interested Tribes. No further response has been received.
- Paul Marcarro, Cultural Resources Coordinator, and Ebru Ozdil, Cultural Resources Manager for Pechanga Band of Luiseno Indians on October 10, 2019. Caltrans received a response on November 4, 2019, stating that the project lies within the Tribe's aboriginal territory as evidenced by the existence of cultural resources. The Tribe requested consultation, as well as notification and involvement with the environmental review process including review of all documents. Caltrans sent the Draft Archaeological Study Report (ASR) with maps that detailed the Areas of Potential Effects (APEs) were negative for prehistoric resources. The Pechanga Tribe was also added to the environmental document distribution list. An initial consultation response was also received on March 20, 2020. Caltrans responded by inquiring about comments on the documents that were previously sent. A follow-up email was also sent by Caltrans on March 23, 2020; however, no comments have been received to date.
- Joseph Ontiveros, Cultural Resource Department, Soboba Band of Luiseño Indians on October 10, 2019. A request to initiate government-to-government consultation and tribal monitoring was received on November 18, 2019. Caltrans sent the ASR with maps as well as a denial letter on March 3, 2020. No further comments have been received.

4.1.3 Local Historical Society/Historic Preservation Group

The following historical societies and historic preservation group were contacted for information regarding the project site:

- Historical Society of Palm Desert, request for information letter sent October 28, 2019. Caltrans followed up with an email requesting participation and input regarding the drafting of the Memorandum of Agreement (MOA) on September 2, 2020. No response has been received to date.
- Coachella Valley Archaeological Society, request for information letter sent October 28, 2019. Caltrans followed up with an email requesting participation and input regarding the

drafting of the MOA on September 2, 2020. A response was received the same day declaring they would respond if they have any concerns. No further response was received to date.

- Idyllwild Area Historical Society, request for information letter sent October 28, 2019. Caltrans followed up with an email requesting participation and input regarding the drafting of the MOA on September 2, 2020. No response has been received to date.
- Lake Elsinore Historical Society, request for information letter sent October 28, 2019. Caltrans received a phone call from the president of the Society (Ruth Atkins) indicating the project was west of their area of interest, and they had no concerns regarding Morrill Canyon Bridge, which is the closest of the two bridge structures to, but not in, what they consider their jurisdiction. Caltrans followed up with an email requesting participation and input regarding the drafting of the MOA on September 2, 2020. A response was received the same day explaining that there is no historic connotation to the subject bridges as far as the City of Lake Elsinore is concerned. No further response has been received to date.
- San Juan Capistrano Historical Society, request for information letter sent October 28, 2019. Caltrans followed up with an email requesting participation and input regarding the drafting of the MOA on September 2, 2020. No response has been received to date.

4.1.4 United States Forest Service

The United States Forest Service (USFS) was provided information regarding the project description and previous study findings that determined no cultural resources lie within the project area overlapping the project limits and Bureau of Land Management (BLM) administered land. Caltrans provided information to the USFS San Bernardino and Cleveland Field Offices regarding the project and the lack of cultural resources within the APE on October 22, 2019. Caltrans also transmitted the cultural compliance documentation including the HPSR and the MOA to both field offices on August 26, 2020. Caltrans has received no response regarding the project information or MOA to date.

4.1.5 Department of Parks and Recreation, Office of Historic Preservation

Caltrans requested consultation with the State Historic Preservation Officer (SHPO) regarding the project in a letter dated April 17, 2020. The letter included a copy of the HPSR and Finding of Effect (FOE) Report prepared for the project. The FOE proposed that a Finding of Adverse Effect is appropriate for the undertaking and determined that the undertaking as a whole will have an Adverse Effect. In a reply letter dated June 8, 2020, the SHPO, based on reviews of the submitted documentation, concurred with the Finding of Adverse Effect for the project. Caltrans has initiated further consultation with SHPO in December 2020 regarding the resolution of adverse effects through execution of a Memorandum of Agreement (MOA). The MOA will be executed prior to Caltrans approval of the Final ISEA.

4.2 Agency Coordination Documentation

Agency correspondence letters are provided on the pages that follow this chapter.

- Biological Resources:

  - USFWS iPaC, Official Species List.

- Cultural Resources:
  - State Historic Preservation Officer (SHPO) has concurred with a **Finding of Adverse Effect** for the undertaking.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To: November 09, 2020
Consultation Code: 08ECAR00-2020-SLI-1045
Event Code: 08ECAR00-2021-E-00400
Project Name: 1G470 - Morrill Canyon Bridge Replacement

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2020-SLI-1045

Event Code: 08ECAR00-2021-E-00400

Project Name: 1G470 - Morrill Canyon Bridge Replacement

Project Type: TRANSPORTATION

Project Description: Caltrans proposes to replace Morrill Canyon Bridge (Br. No 560169, SR-74, PM 3.08) in Riverside County.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.61614969831005N117.42599461443456W

Counties: Riverside, CA

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

---

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

Birds

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Amphibians

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3762	Endangered

Insects

NAME	STATUS
Quino Checkerspot Butterfly *Euphydryas editha quino (=E. e. wrighti)* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5900	Endangered

Crustaceans

NAME	STATUS
Riverside Fairy Shrimp *Streptocephalus woottoni* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Encinitas Baccharis *Baccharis vanessae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3343	Threatened
San Diego Button-celery *Eryngium aristulatum var. parishii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5937	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To: November 09, 2020
Consultation Code: 08ECAR00-2020-SLI-1046
Event Code: 08ECAR00-2021-E-00401
Project Name: 1G470 - Strawberry Creek Bridge

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2020-SLI-1046

Event Code: 08ECAR00-2021-E-00401

Project Name: 1G470 - Strawberry Creek Bridge

Project Type: TRANSPORTATION

Project Description: Caltrans proposes to replace Strawberry Bridge (Br. No 560180, SR-74, PM 53.5) in Riverside County.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.711030930791594N116.76946744996033W

Counties: Riverside, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

---

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

Mammals

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2060	Endangered
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Endangered

Birds

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Amphibians

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3762	Endangered

Insects

NAME	STATUS
Quino Checkerspot Butterfly *Euphydryas editha quino (=E. e. wrighti)* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5900	Endangered

Flowering Plants

NAME	STATUS
Slender-horned Spineflower *Dodecahema leptoceras* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4007	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

From: NMFSWCRCA Specieslist - NOAA Service Account
To: Frost, Nancy@DOT
Subject: Re: FHWA/Caltrans Project 1G470 / 0816000001 Replacement of Morrill Canyon Bridge and Strawberry Creek Bridge
Date: Tuesday, May 5, 2020 2:45:00 PM

EXTERNAL EMAIL. Links/attachments may not be safe.

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

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

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

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

Southern California (Long Beach) 562-980-4000

California Central Valley (Sacramento) 916-930-3600

From: Frost, Nancy@DOT
To: nmfswcrca.specieslist@noaa.gov
Subject: FHWA/Caltrans Project 1G470 / 0816000001 Replacement of Morrill Canyon Bridge and Strawberry Creek Bridge
Date: Tuesday, May 5, 2020 2:44:00 PM

Caltrans on Behalf of Federal Highway Administration

Nancy Frost, Associate Environmental Planner (Natural Sciences)
Office: California Department of Transportation
464 W 4th Street, San Bernardino, CA 92401 MS 822
909-383-6332

Caltrans proposes to replace Morrill Canyon Bridge (Br. No 560169, SR-74, PM 3.08) and Strawberry Creek Bridge (Br. No 560180, SR-74, PM 53.5) in Riverside County.

1G470 Species List Inquiry:

Quad Name **Blackburn Canyon**

Quad Number **33116-F7**

ESA Anadromous Fish

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

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office

562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name **Sitton Peak**

Quad Number **33117-E4**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

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

ESA Anadromous Fish Critical Habitat

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

ESA Marine Invertebrates

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

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

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

ESA Whales

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

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office

562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS
P.O. BOX 942874, MS 27
SACRAMENTO, CA 94273-0001
PHONE (916) 654-3567
FAX (916) 653-7757
TTY (916) 653-4086
www.dot.ca.gov

Making Conservation a California Way of Life

April 17, 2020

Julianne Polanco
State Historic Preservation Officer
1725 23rd Street, Suite 100
Sacramento, CA 95816

RE: Finding of Adverse Effect for Route 74 Bridge Upgrade Project in Riverside County

Dear Ms. Polanco:

The California Department of Transportation is initiating consultation with the SHPO regarding the proposed Route 74 Bridge Upgrade Project (EA: 1G470) in Riverside County. This consultation is undertaken in accordance with procedures outlined in the January 1, 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (Section 106 PA). Caltrans is currently complying with PRC 5024 pursuant to Stipulation III of the *Memorandum of Understanding between the California Department of Transportation and the California State Historic Preservation Officer regarding compliance with Public Resource Code 5024 and Governor's Executive Order W-26-92* (PRC 5024 MOU).

The proposed project involves the replacement of bridge rails (through removal and replacement of bridge railings, extensive bridge modification, and/or full bridge replacement) on two structures located on Route 74; one on the Ortega Highway portion of the road (PM 3.08), and a second on the Pines-to-Palms Highway section of the road (PM 53.45) in Riverside County. Both structures are masonry arch bridges with solid masonry parapet railings.

Enclosed please find a Historic Properties Survey Report (HPSR) and a Finding of Effect (FOE) Report for the project. Caltrans has identified three Historic Properties in the APE; the Morrill Canyon Bridge at PM 3.08 (Category 2), the Strawberry Creek Bridge at PM 53.45 (Category 2), and the Pines-to-Palms Highway, all of which have been previously determined eligible for the NRHP. The FOE proposes that a Finding of Adverse Effect is appropriate for the Undertaking. We are consulting with you at this time in accordance with Section 106 PA Stipulation X.C(1), which requires consultation with the SHPO regarding findings of adverse effect.

Pursuant to Stipulation X.A of the PA, Caltrans has applied the Criteria of Adverse Effect set forth at 36 CFR 800.5(a)(1) and finds that the undertaking would have an adverse effect on historic properties, as detailed in Sections V and VI of the FOE. Therefore, Caltrans has

determined that **the undertaking as a whole will have an Adverse Effect** and is seeking SHPO concurrence with these findings pursuant to Section 106 PA Stipulation XI.C and 36 CFR 800.5. Caltrans will continue consultation regarding resolution of adverse effect. We look forward to receiving your written response within 30 days of your receipt of this transmittal in accordance with Stipulation X.B.(1) of the Section 106 PA.

If you have any questions, please contact me or Caltrans District 8 PQS Historian Andrew Walters (phone: 909-388-2647; email: Andrew_walters@dot.ca.gov). Thank you for your assistance with this undertaking.

Sincerely,

David Price
Section 106 Coordination Branch Chief
Cultural Studies Office

Enclosure: Finding of Adverse Effect with attachments for the Route 74 Bridge Upgrade Project in Riverside County.

c. Andrew Walters, Branch Chief Environmental Support/Cultural Studies, Caltrans District 8
   Jill Hupp, 5024 Coordinator, Caltrans Cultural Studies Office

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

June 8, 2020

VIA EMAIL

In reply refer to: FHWA_2020_0417_002
CATRA_2020_0417_001

Mr. David Price, Section 106 Coordinator
Cultural Studies Office
Caltrans Division of Environmental Analysis
1120 N Street, PO Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Finding of Adverse Effect for the Proposed Route 74 Bridge Upgrade Project, Riverside County, CA

Dear Mr. Price:

Caltrans is initiating consultation about the subject undertaking in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA). Caltrans is also consulting in accordance with the Public Resources Code 5024 and pursuant to the *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code 5024 and Governor's Executive Order W-26-92* (5024 MOU). As part of your documentation, Caltrans submitted a Historic Properties Survey Report (HPSR), an Archaeological Survey Report, and a Finding of Effect (FOE) for the proposed project.

Caltrans proposes to replace bridge rails (through removal and replacement of bridge railings, extensive bridge modification, and/or full bridge replacement) on two structures located on Route 74; one on the Ortega Highway portion of the road (PM 3.08), and a second on the Pines-to-Palms Highway section of the road (PM 53.45) in Riverside County. Both structures are masonry arch bridges with solid masonry parapet railings.

Caltrans has identified three Historic Properties in the APE; the Morrill Canyon Bridge at PM 3.08 (Category 2), the Strawberry Creek Bridge at PM 53.45 (Category 2), and the Pines-to-Palms Highway, all of which have been previously determined eligible for the NRHP.

Caltrans has applied the Criteria of Adverse Effect and found pursuant to Stipulation XI.C. of the PA, the project will have an adverse effect to the above historic properties.

Based on review of the submitted documentation, I have no objection to Caltrans' finding of adverse effect for this project.

If you have any questions, please contact Natalie Lindquist at (916) 445-7014 with e-mail at natalie.lindquist@parks.ca.gov Jeanette Schulz at (916) 445-7031 with e-mail at jeanette.schulz@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

Chapter 5 List of Preparers

The following persons were principally responsible for review and preparation of this IS/EA.

California Department of Transportation

Renetta Cloud	Senior Environmental Planner
Kourtney Graves Sr.	Associate Environmental Planner
Andrew Walters	Senior Environmental Planner/Cultural Studies
Craig Wentworth	Supervising Environmental Planner/Office Chief, Biology
Sarah Gallimore	Associate Environmental Planner (Natural Sciences)
Nancy Frost	Associate Environmental Planner (Natural Sciences)
Thomas Ngo	Project Engineer
Paul Phan	Office Chief, Environmental Engineering
Bahram Karimi	Associate Environmental Planner/Paleontological Studies

ICF

Brian Calvert	Senior Managing Director, Environmental Planning
Court Morgan	Managing Director, Environmental Planning
Elizabeth Irvin	Senior Technical Editor
Johnnie Garcia	GIS Manager
Keith Cooper	Air Quality, Climate Change Specialist
Youji Yasui	Senior Environmental Planner

Chapter 6 Distribution List

The Initial Study/Environmental Assessment (IS/EA) and/or a Notice of Availability was made available electronically to the following federal, state, regional, and local agencies, elected officials, interested groups, organizations and individuals, and utilities and service providers in the project area. In addition, all property owners and resident/occupants located within 500 feet of the proposed project were also provided with the notice.

6.1 Agencies

U.S. Forest Service, Cleveland National Forest
Natural Resources Specialist Amy L. Reid
10845 Rancho Bernardo Road, Suite 200
San Diego, CA 92127

U.S. Fish and Wildlife Service
Region 8
2800 Cottage Way
Sacramento, CA 95825-1846

U.S. Department of Agriculture – Natural Resources Conservation Service
430 G Street, Suite 4164
Davis, CA 95616

U.S. Fish and Wildlife Service
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262

CAL FIRE Southern Region HQ Operations
2524 Mulberry St
Riverside, CA 92501

U.S. Army Corps of Engineers
915 Wilshire Blvd. Suite 1101
Los Angeles, CA 90017

California Highway Patrol
8118 Lincoln Avenue
Riverside, CA 92504

California Department of Fish and Wildlife
South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123

California Department of Water Resources
1416 9th Street
Sacramento, CA 95814

Department of Toxic Substances Control
P.O. Box 806
Sacramento, CA 95812-0806

California Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691

California Dept. of Fish and Wildlife
3602 Inland Empire Blvd, Suite C-220
Ontario, CA 91764

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

California Public Utilities Commission
320 West 4th Street, Suite 500
Los Angeles, CA 90013

Southern California Association of Governments
3403 10th Street, Suite 805
Riverside, CA 92501

Western Riverside Council of Governments
3390 University Avenue, Suite 450
Riverside, CA 92501

Riverside County Board of Supervisors, District 1
Honorable Kevin Jeffries
4080 Lemon Street
Riverside, CA 9250

Riverside County Board of Supervisors, District 3
Supervisor Chuck Washington
749 N. State Street
Hemet, CA 92543

Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

City of Lake Elsinore
Fire Department
130 South Main Street
Lake Elsinore, CA 92530

City of Lake Elsinore
City Engineer
130 South Main Street
Lake Elsinore, CA 92530

City of Lake Elsinore
Police Department (Captain)
333 Limited Avenue
Lake Elsinore, CA 92530

Lake Elsinore Unified School District
545 Chaney Street
Lake Elsinore, CA 92530

City of Lake Elsinore
Mayor Brian Tisdale
130 South Main Street
Lake Elsinore, CA 92530

City of Hemet
Public Works Director
445 E Florida Avenue
Hemet, CA 92543

City of Hemet
Police Department (Captain)
445 E Florida Avenue
Hemet, CA 92543

Office of California State Senate District 28
Senator Melissa Melendrez
28156 Hancock Avenue, Suite 320
Murrieta, CA 92562

City of Hemet
Fire Department
445 E Florida Avenue
Hemet, CA 92543

Office of United States Senator
Senator Diane Feinstein
750 B Street, Suite 1030
San Diego, CA 92101

Office of United States Senator
Senator Kamala D. Harris
600 B Street Suite 2240
San Diego, CA 92101

California State Assembly, District 73
Honorable Laurie Davies29122 Ranch Viejo Road, Suite #111
San Juan Capistrano, CA 92675
info@daviesforca.com

Office of U.S. Congressional District 36
Congressman Raul Ruiz
445 E. Florida Avenue
Hemet, CA 92543

Office of California Assembly District 67
Honorable Kelly Seyarto
41391 Kalmia Street, Suite 220
Murrieta, CA 92562
campaign@kellyforassembly2020.com

Office of California Assembly District 42
Assemblyman Chad Mayes
41608 Indian Trail, Suite 1
Rancho Mirage, CA 92270

Office of California State Senate District 23
Rosilicie Ochoa Bogh
10350 Commerce Center Drive, Suite A-220
Rancho Cucamonga, CA 91730

Office of U.S. Congressional District 42
Ken Calvert
4160 Temescal Canyon Road, Ste. 214
Corona, CA 92883

6.2 Interested Groups, Organizations, and Individuals

USA 557 Or Current Occupant
144 N Mountain View Ave
San Bernardino, Ca 92408

Kenneth Morris Or Current Occupant
34744 Ortega Hwy
Lake Elsinore, Ca 92530

James M Webb Or Current Occupant
P O Box 2596
Mission Viejo, Ca 92690

Kathleen Harder Or Current Occupant
34720 Ortega Highway
Lake Elsinore, Ca 92530

Harry Wileman Or Current Occupant
1521 Calle Valle
San Clemente, Ca 92672

Mesa Plaza Or Current Occupant
23361 El Toro #202
Lake Forest, Ca 92630

Lazy E Ranch Or Current Occupant
20142 Riverside Dr
Newport Beach, Ca 92660

Alvaro Guillen Or Current Occupant
28471 La Pradera
Laguna Niguel, Ca 92677

Virgil J Mcintyre Or Current Occupant
34704 Ortega Hwy
Lake Elsinore, Ca 92530

Harry Wileman Or Current Occupant
24700 Potrero Rd
Lake Elsinore, Ca 92530

Steven R Bayne Or Current Occupant
34730 Ortega Hwy
Lake Elsinore, Ca 92530

Virgil J Mcintyre Or Current Occupant
34021 Malaga Dr
Dana Point, Ca 92629

Kathleen M Harder Or Current Occupant
34706 Ortega Hwy
Lake Elsinore, Ca 92530

Carl Lawrence Or Current Occupant
24953 Whisler Dr
El Toro, Ca 92630

Kathleen M Harder Or Current Occupant
34710 Ortega Hwy
Lake Elsinore, Ca 92530

Von Gremp Debra Or Current Occupant
2854 Calle Guadalajara
San Clemente, Ca 92673

Operations Cbo Or Current Occupant
1170 Marine Dr
Laguna Beach, Ca 92651

Jason Mcmahan Or Current Occupant
416 N Marie Ave
Fullerton, Ca 92833

Brian Edward Becker Or Current Occupant
3478 Ortega Hwy
Lake Elsinore, Ca 92530

Holdings Unity Or Current Occupant
3 Windy Ridge
Trabuco Canyon, Ca 92679

Von Gremp Debra Or Current Occupant
34724 Ortega Hwy
Lake Elsinore, Ca 92530

Operations Cbo Or Current Occupant
34421 Ortega Hwy
Lake Elsinore, Ca 92530

Von Gremp Debra Or Current Occupant
34722 Ortega Hwy
Lake Elsinore, Ca 92530

Operations Cbo Or Current Occupant
34650 Ortega Hwy
Lake Elsinore, Ca 92530

Steven R Bayne Or Current Occupant
34730 Highway 74
Lake Elsinore, Ca 92530

Current Occupant
34640 Ortega Hwy
Lake Elsinore, Ca 92530

Rey Sierra Or Current Occupant
23361 El Toro Rd #202
Lake Forest, Ca 92630

Ana Shapiro Churchill Or Current Occupant
26662 Sierra Vista
Mission Viejo, Ca 92692

Robert M Caron Or Current Occupant
34542 Via Espinoza
Capistrano Beach, Ca 92624

James M Webb Or Current Occupant
34700 Ortega Hwy
Lake Elsinore, Ca 92530

Appendix A Section 4(f)

This page intentionally left blank.

Appendix A: Individual Section 4(f) Evaluation and Programmatic Section 4(f) Evaluation

Individual Section 4(f) Evaluation

Submitted Pursuant to:
49 U.S.C. 303

SR-74 Bridge Replacement Project

Bridge No. 56-0169 and 56-0180

Riverside County, California

08-RIV-74 PM 2.9/3.2 & 53.3/53.5

California Department of Transportation, District 8

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

December 2020

SR-74 Bridge Replacement Project

RIVERSIDE COUNTY, CALIFORNIA
08-RIV-74-PM 2.9/3.2 & 53.3/53.5

EA 1G470/ 0816000001

INDIVIDUAL SECTION 4(F) EVALUATION
Submitted Pursuant to:

49 USC 303

THE STATE OF CALIFORNIA

Department of Transportation as assigned

_____	_____
Date of Approval	Renetta Cloud Senior Environmental Planner

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

Contents

Chapter 1 **Introduction** **1-1**
Chapter 2 **Description of Proposed Project and Alternatives** **2-1**
2.1 Project Purpose and Need 2-1
2.1.1 Project Purpose 2-1
2.1.2 Project Need 2-1
2.2 Project Description/Alternatives 2-2
2.2.1 Alternatives 2-2
2.3 Description of Section 4(f) Property 2-9
2.4 Pines-to-Palms Highway 2-9
2.4.1 Impacts on Section 4(f) Properties 2-10
2.4.2 Avoidance Alternatives 2-11
2.4.3 Measures to Minimize Harm to the Section 4(f) Property 2-16
2.4.4 Coordination 2-16
Chapter 3 **Letters and Other Correspondence** **3-1**
Chapter 4 **Other Park, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)** **4-1**
4.1 Parks 4-1
Chapter 5 **Additional References** **5-1**

List of Figures

Figure **On Page**

Figure 1 - Regional Vicinity 2-5

Figure 2 - Project Location 2-7

Figure 3 - Strawberry Creek Avoidance Alternative 2-15

List of Tables

Table 2-1, Resources Listed or Eligible for Listing in the National Register of Historic Places 2-9

Acronyms and Abbreviations

ADA	Americans with Disabilities Act
APE	Area of Potential Effects
BMPs	Best management practices
CRHR	California Register of Historical Resources
DIB	Design Information Bulletin
DPR	Department of Parks and Recreation
EBL	Eligible Bridge List
FHWA	Federal Highway Administration
FOE	Finding of Effect
FTIP	Federal Transportation Improvement Program
HAER	Historic American Engineering Record
HBP	Highway Bridge Program
MLD	Most Likely Descendent
MOA	Memorandum of Agreement
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NPS	National Parks Service
NRHP	National Register of Historic Places
SD	Structurally Deficient
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
USFS	U.S. Forest Service
USGS	U.S. Geological Survey

Chapter 1 Introduction

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project … "requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- There is no prudent and feasible alternative to using that land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use."

Section 4(f) further requires coordination with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and the Department of Housing and Urban Development in developing transportation projects and programs that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

Responsibility for compliance with Section 4(f) has been assigned to the Department pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

This page intentionally left blank.

Chapter 2 Description of Proposed Project and Alternatives

2.1 Project Purpose and Need

2.1.1 Project Purpose

The purpose of the project is to ensure the safety and mobility for the traveling public by replacing the aging structures and upgrading the bridge rails at Morrill Canyon Bridge and Strawberry Creek Bridge, in order to provide continued connectivity along SR-74.

2.1.2 Project Need

The Morrill Canyon Bridge and Strawberry Creek Bridge were initially identified for bridge rail upgrade or replacement in 1984. Due to the number of rail upgrade/replacment needs statewide, the bridge structures have been prioritized based on traffic volume and geometrics. The Structure Replacement and Improvement Needs (STRAIN) Report, dated October 2014, also identifies several longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arches. In addion, both structures have nonstandard lane and shoulder width. Due to the significant deterioration and nonstandard features, there is a need to replace these structures to meet current design, crash, and safety standards.

The condition of the bridge structures are described in the Bridge Inspection Reports based on routine inspection on each of the bridges performed in August 2013. The following findings were noted:

Morrill Canyon Bridge (Bridge No. 56-0169):

- Bridge rails do not meet current federal crash standards.
- There are longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arch.
- The existing shoulder and lane width do not comply with current design standards.
- This bridge structure was built in 1931 and has exceeded its useful design life.
- Cross sectional area of the bridge is not capable of accommodating 50-and 100-year storm events.

Strawberry Creek Bridge (Bridge No. 56-0180):

- Bridge rails do not meet current federal crash standards.
- There are moderate transverse and map AC cracks throughout the deck.
- Minor to moderate longitudinal and transverse soffit cracks (less than 0.05 inches wide and 5 foot spacing) with efflorescence.
- The existing shoulder and lane width do not comply with current design standards.
- This bridge structure was built in 1929 and has exceeded its useful design life.
- Cross sectional area of the bridge is not capable of accommodating 100-year storm events.

For additional information, refer to the Purpose and Need section in Chapter 1 of the ISEA.

2.2 Project Description/Alternatives

2.2.1 Alternatives

2.2.1.1 NO-BUILD ALTERNATIVE

Under the No-Build Alternative, no new or modified bridge or other physical improvements would be constructed on SR-74 at Morrill Canyon Bridge or Strawberry Creek Bridge. The Morrill Canyon Bridge was built in 1931 and has exceeded its useful design life. The Strawberry Creek Bridge was built in 1929 and has also exceeded its useful design life. The existing bridges would be left in its current condition, and no structural or functional deficiencies would be corrected. Ongoing maintenance would continue.

The No-Build Alternative has been determined to be imprudent and infeasible and would not meet the project purpose and need as previously described.

2.2.1.2 PROPOSED BUILD ALTERNATIVES

The project proposes to replace Morrill Canyon Bridge and Strawberry Creek Bridge in Riverside County. The project has a no-build alternative, Morrill Canyon Bridge has one alternative and Strawberry Creek Bridge has two alternatives. In order to replace each structure, the project would construct a temporary bridge at each location, detour traffic from the existing bridge to the temporary bridge, or depending on the alternative, use part of the existing bridge for reverse traffic control, remove the existing structure, and construct the proposed bridge.

Morrill Canyon Bridge Alternative M1

- Alternative M1 (12-foot lane in each direction, 2-foot median, and 8-foot shoulders);

The Morrill Canyon Bridge alternative involves reconstructing the approach of the roadway to the bridge ends, a new bridge rail that will match the current aesthetics of the structure, reconstructing 1 overside drain system, new Midwest Guardrail System (MGS), 12-inch rumble strip, and temporary two-lane detour bridge to be built on the south side of the bridge for detour and to avoid the Cleveland National Forest. Regrading of the access driveway to Tenaja Truck Trail will also occur with a staging area at PM 2.9.

Strawberry Creek Bridge Alternative S1 and S3

- Alternative S1 – The proposed alignment for this alternative will be approximately 13-feet south of the existing yellow stripe. Reverse traffic control will be utilized for all stages of construction. As such, no temporary detour bridge would be required. This alternative would result in 12-foot lanes in each direction and standard 8-foot shoulders, reconstructing the roadway approach to the bridge's approach slabs, new bridge rail that will match the current aesthetics of the structure, reconstructing 2 overside drain systems, and new MGS. A staging area would be located at PM 53.65.

- Alternative S3 – The proposed alignment would be designed to closely match the existing yellow stripe to minimize the permanent impacts. A two-way detour is proposed approximately 42.5-feet south of the existing yellow stripe to maintain traffic flow during construction. This alternative will result in a larger temporary environmental impact footprint compared to Strawberry Creek Bridge Alternative S1. This alternative involves 12-foot lanes in each direction and standard 8-foot shoulders, reconstructing the roadway approach to the bridge's approach slaps, new bridge rail that will match the current aesthetics of the structure, reconstructing 1 overside drain system, new MGS, and constructing two-way traffic detour bridge with temporary pavement approach to accommodate 11-foot lanes, 1-foot shoulder, and temporary railing. A staging area would also be located at PM 53.65.

Refer to Chapter 1, "Proposed Project" of the ISEA for more detailed information.

This page was intentionally left blank.

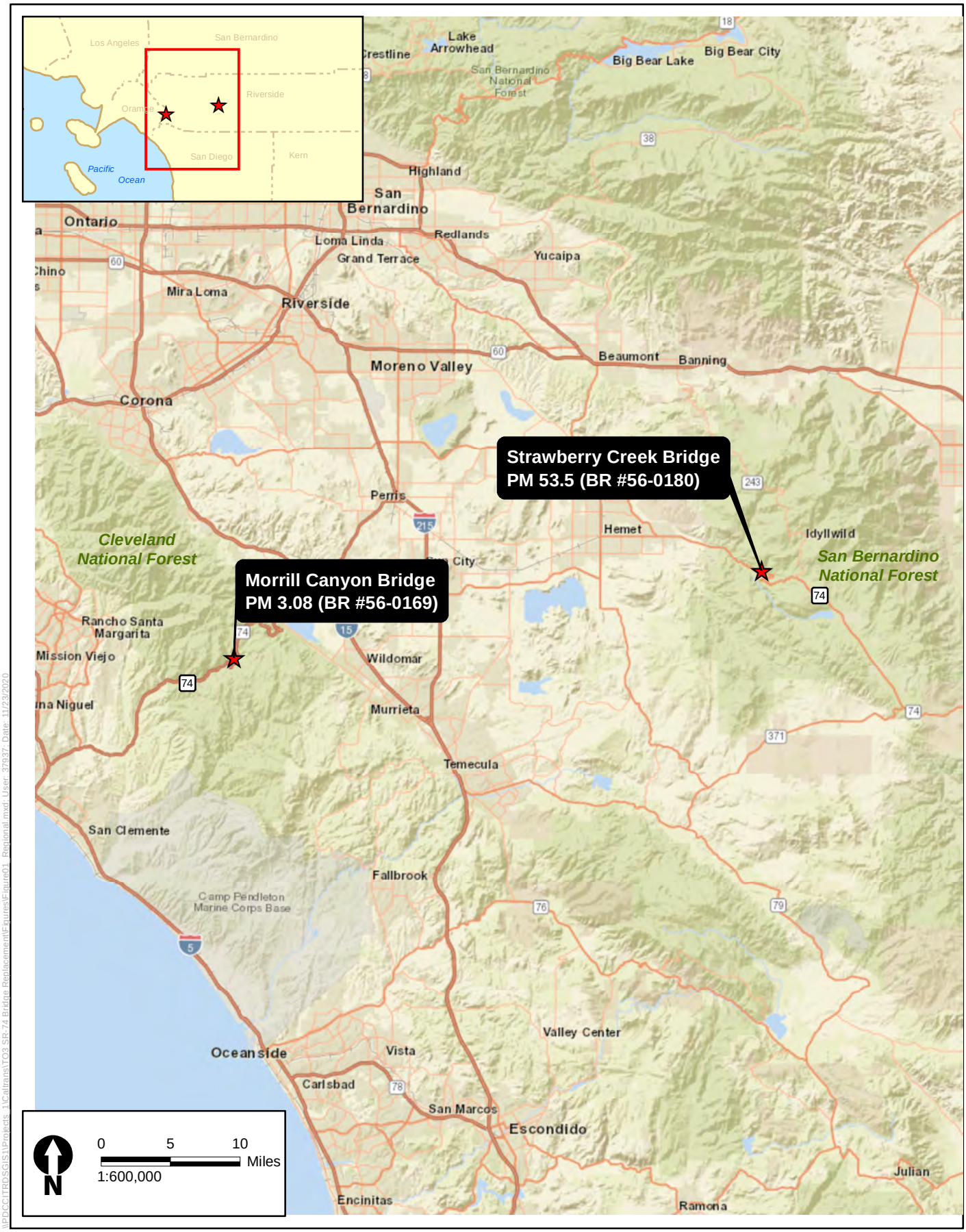
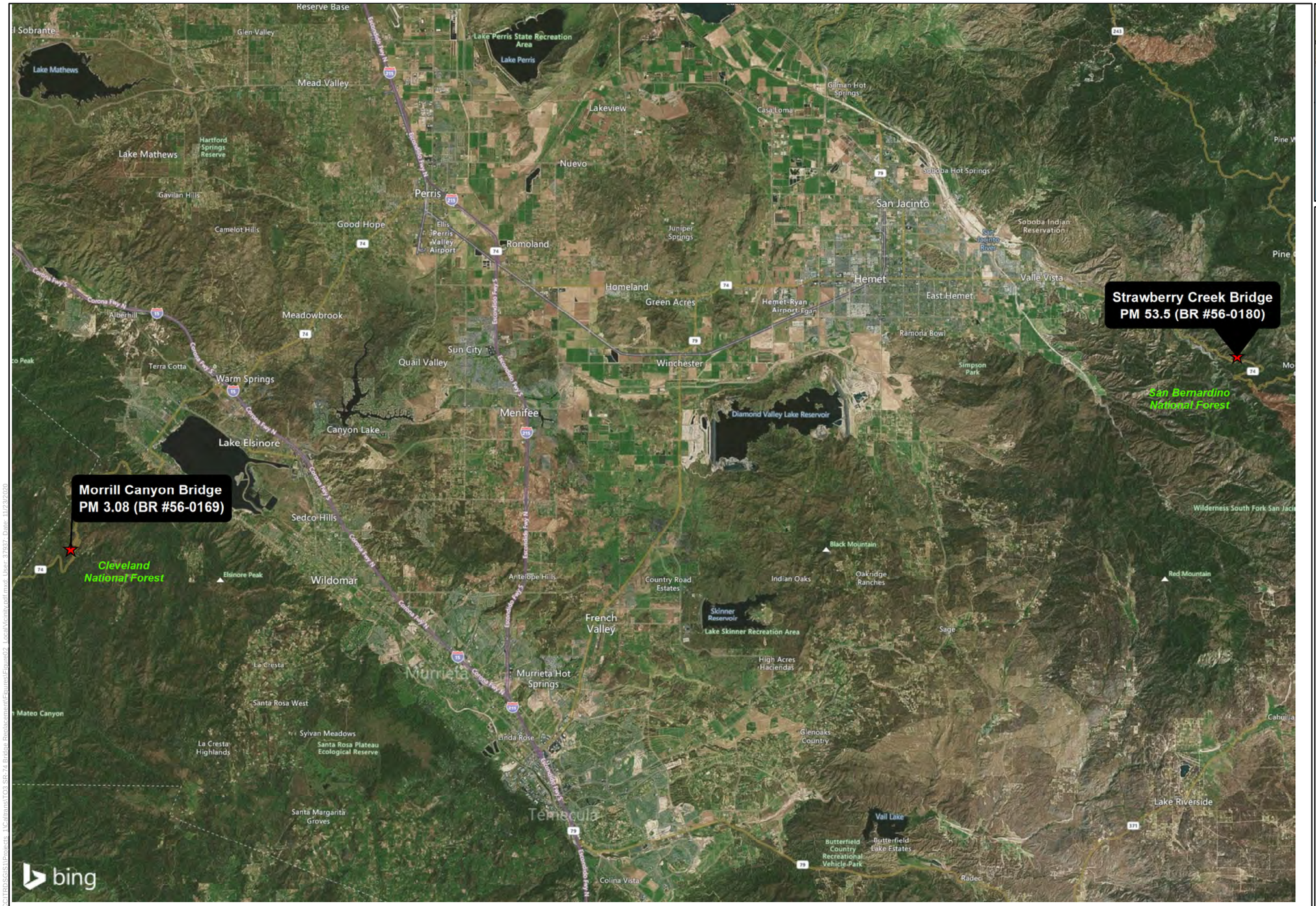
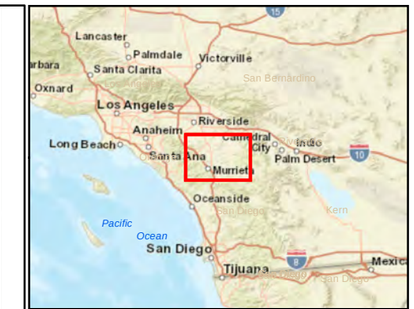


Figure 1
Regional Vicinity Map
SR-74 Bridge Replacement Project

This page intentionally left blank.





Legend

★ Bridge Locations

N

0 1 2 Miles

1:203,502

Figure 2
Project Location Map
SR-74 Bridge Replacement Project

This page intentionally left blank.

2.3 Description of Section 4(f) Property

Resources subject to Section 4(f) consideration include publicly owned lands consisting of a public park/recreational area; public wildlife and waterfowl refuges of national, state, or local significance; or historic sites of national, state, or local significance, whether publicly or privately owned. The San Juan Loop Trailhead and Bear Canyon Trailhead is a Section 4(f) resource within the project vicinity, however, no use of these resources would occur due to implementation of the proposed project. Strawberry Creek also offers recreational activities for fishing and would be considered a Section 4(f) resource. No use of Strawberry Creek would occur due to implementation of the proposed project. The two bridge sites are located within the U.S. Forest Service Cleveland National Forest and San Bernardino National Forest. A Special Use Permit would be required from the USFS at Strawberry Creek Bridge. These resources would not be affected by the proposed project, access would not be affected to these resources, and no changes to the use of these resources would occur as a result of the project.

There are significant historic sites in the project area that are considered to be Section 4(f) resources. Under Section 4(f), a significant historic site is defined as on, or eligible for listing in the NRHP. The resources that are on the list or eligible for listing are provided in Table 2-1. The Morrill Canyon Bridge and Strawberry Creek Bridge are discussed separately in the Programmatic Section 4(f) evaluation that has been prepared.

Table 2-1. Resources Listed or Eligible for Listing in the National Register of Historic Places

Identification, Name	Location, Description	Use	Significance
CA-RIV-8089H (P-33-15321) Pines to Palms Highway	Linear resource, perpendicular to Strawberry Creek	Yes	NRHP Eligible
CA-RIV-10575 (P-33-006976)*	Strawberry Creek Bridge No. 56-0180	Yes	NRHP Eligible as contributor to Pines-to-Palms Highway
CA-RIV-10574H (P-33-007236)*	Morrill Canyon Bridge No. 56-0169	Yes	NRHP Eligible

Source: Historic Property Survey Report, August 2020.

Notes:

* = The Morrill Canyon Bridge and Strawberry Creek Bridge are discussed separately in the Programmatic Section 4(f) Evaluation document prepared for the project.

This section will discuss only the Section 4(f) resources in which a “use” occurs. Use occurs when 1) the property is acquired for a transportation project, 2) there is an occupancy of land that is adverse to the preservationist purpose of Section 4(f), or 3) there is a proximity impact that substantially impairs the purpose of the land.

As indicated by the table, a use of the Morrill Canyon Bridge and Strawberry Creek Bridge occurs as part of the project and both bridges were analyzed in the Programmatic Section 4(f) evaluation prepared for the project. A use of the San Juan Loop Trailhead, Bear Canyon Trailhead, and Strawberry Creek does not occur as part of the project, and a discussion of these resources is included under Section 4, “Other Parks, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)”.

2.4 Pines-to-Palms Highway

The Pines-to-Palms Highway (CA-RIV-8089H/P-33-15321H) is a largely east-west route located between the San Jacinto Valley community of Hemet and the Coachella Valley community of Palm Desert. The limits of the Pines-to-Palms Highway have been established as Post Mile (PM) 47.23 to PM 92.80, a total length of 45.57 miles. The Strawberry Creek Bridge is located on the Pines-to-Palms Highway at PM 53.45. The Pines-to-Palms Highway has many masonry elements and features that contribute to the resource, including the Strawberry Creek Bridge. The highway was previously determined eligible for listing on the National Register of Historic Places under Criterion A at the local level of significance for links to early 20th Century tourism and recreational infrastructure development. Contributing features include the general configuration of the roadway itself, as well as multiple bridges (at the San Jacinto River, North Fork of the San Jacinto River, and Strawberry Creek) and two large masonry arch culverts located at Dry Creek (PM 54.40) and Omstott Creek (PM 80.00) near Pinon Pines. Also contributing are a series of masonry culvert headwalls found near the west-center and east ends of the linear resource (roughly between PM 55 and PM 59, just west/northwest of Mountain Center, then resuming around PM 82 to PM 92), and a series of masonry curbs and gutters located at the northeast end of the highway near Palm Desert, approximately between PM 91 and 92. The Strawberry Creek Bridge at PM 53.45 on the Pines-to-Palms Highway is a recognized contributor to the historic resource. The SHPO concurred on June 25, 2014 regarding eligibility of the highway and status of contributing elements. The Pines-to-Palms Highway is a state-owned resource and is listed on the Master List of Historic Resources.

2.4.1 Impacts on Section 4(f) Properties

2.4.1.1 BUILD ALTERNATIVES

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternative S1 and S3

None of the build alternatives under consideration for the project specifically involve work on the Pines-to-Palms Highway independent of work on the Strawberry Creek Bridge. The Strawberry Creek Bridge Alternatives S1 and S3 that involve work on the bridge, including full replacement of the bridge, would impact the highway on and around the Strawberry Creek Bridge. The project would involve potential impacts to the historic linear resource (the Pines-to-Palms Highway) between PM 53.0 and PM 54.0, but it is likely that, except for work on and around Strawberry Creek Bridge, which is a contributor to the resources, only a short section of the highway itself, approximately 500-feet of the pavement and shoulder, may or will be directly impacted by the modification and/or removal of the Strawberry Creek Bridge, with visual impacts extending slightly beyond that due to the location of the bridge being on a curve and in an area with heavy tree cover. None of the project alternatives involve work on the highway alone and/or entirely independent of bridge work.

As such, Strawberry Creek Bridge Alternatives S1 and S3 would involve physical destruction of or damage to all or part of the historic property. Besides the alteration or removal of an important contributor (the Strawberry Creek Bridge), the work will impact the existing pavement and shoulder areas on the bridge and at both approaches leading to the bridge. While this constitutes removal of potentially original material from the highway linear resource, there have been minor

modifications to the highway in this same area, including shoulder work, widening to the southwest only, and pavement work, making it unlikely that original material beyond the bridge itself, is still extant in this specific area.

2.4.1.2 NO-BUILD ALTERNATIVE

No replacement of Strawberry Creek Bridge would occur under the No-Build Alternative, and no physical damage of or to all or part of the existing Strawberry Creek Bridge would occur. As such, there would be no work on the existing pavement and shoulder areas on the bridge and at both approaches leading to the bridge.

2.4.2 Avoidance Alternatives

A Section 4(f) evaluation must contain sufficient supporting information to make the finding that there is no feasible and prudent avoidance alternative and that the project includes all possible planning to minimize harm. Section 4(f) requires the development of one or more "avoidance" alternatives that avoid each and every Section 4(f) property. This section identifies the avoidance alternatives that have been developed, including the no-build alternative, which avoids the use of the Section 4(f) property. The following alternatives avoid any use of the historic linear resource (Pines-to-Palms Highway):

1. No Build Alternative.
2. Build a new structure at a different location without affecting the historic integrity of the existing Strawberry Creek Bridge, as determined by procedures implementing the National Historic Preservation Act (NHPA). This alternative would re-route a portion of the project to a different alignment to specifically avoid the Strawberry Creek Bridge, which is a contributor to the resource.

Each of these alternatives have been evaluated to determine whether it is feasible and prudent to avoid the Section 4(f) property. Alternatives that do not avoid the use of each and every Section 4(f) property are not analyzed. Only the avoidance alternatives go through the feasible and prudent analysis. The regulations state that an avoidance alternative is not feasible if it cannot be built as a matter of sound engineering judgement (23 CFR 774.17). The prudence evaluation involves applying each of the following six factors to each avoidance alternative. Does the alternative:

- Compromise the project so that it is unreasonable given the purpose and need;
- Result in unacceptable safety or operational problems;
- After reasonable mitigation, still causes:
    - Severe social, economic, or environmental impacts;
    - Severe disruption to established communities;
    - Severe environmental justice impacts; or

  - Severe impacts to other federally protected resources

- Result in additional construction, maintenance, or operational costs of an extraordinary magnitude;

- Cause other unique problems or unusual factors;

- Involve multiple factors listed above that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

No Build Alternative

Under the No Build Alternative, no new replacement bridge or other physical improvements would be constructed at Strawberry Creek Bridge. The existing bridge would be left in its current condition, and no structural or functional deficiencies would be corrected, however, periodic maintenance would continue to occur.

The No Build Alternative fails to address the project purpose and need and provides none of the project benefits cited with the project. This alternative would maintain the existing bridge structures with nonstandard bridge rails, lane widths and shoulder widths. The bridge structure for Strawberry Creek Bridge have exceeded their useful design life and will deteriorate further resulting in operational deficiencies and will necessitate future costly maintenance measures if left in its current state. With no improvements, there is no capital cost for this alternative. However, there would be continued costs associated with maintenance, periodic rehabilitation, and safety and operational improvements to the existing facility.

- Maintenance—The No Build Alternative does not correct the situation that causes the bridge to be considered deficient and not meet current federal crash standards and design standards or deteriorated. Normal maintenance is not considered adequate to cope with the situation.
- Safety—The No Build Alternative does not correct the situation that causes the bridge to be considered deficient. These deficiencies would not offer protection to errant vehicles and do not result in a safer bridge rail configuration. Due to the significant deterioration and nonstandard features, there is a need to replace the bridge structure to meet current design, crash, and safety standards.

As there would be no construction at Strawberry Creek Bridge under this alternative, there would be no construction at the pavement or shoulder that would affect the historic linear resource, the Pines-to-Palms Highway.

New Bridge with Permanent Alignment South while Preserving the Existing Strawberry Creek Bridge.

This alternative would preserve the existing masonry arch Strawberry Creek Bridge and realign the roadbed approximately 54-feet south of the existing bridge with a total realignment length of 1,800-feet. The new bridge would have two 12-foot lanes and 8-foot shoulders (refer to Figure 3.)

With this alignment, the new bridge would be located on the downstream side and approximately 20-feet from the existing masonry arch Strawberry Creek Bridge so as to avoid the overtopping flow of the existing bridge onto the new replacement bridge during a major storm event. This alternative would consist of the largest footprint compared with Strawberry Creek Bridge Alternative 1 and 3 and would require more than 100-feet in width of Special Use Permit from the USFS. The realignment would also result in an 85-foot bridge compared with a 50-foot bridge as proposed in Strawberry Creek Bridge Alternative 1 and 3. This would result in an increase in the structure cost and ultimately would result in increasing the total construction capital cost. Furthermore, portions of this alignment, east of the replacement structure on the westbound travel lanes would cut through the existing hillside resulting in significant excavation. This hillside, based on visual assessment, is susceptible to rock fall. As such, due to these issues, moving the roadway closer to the cut slope would require additional measures to protect against rock fall onto the roadway. With this alternative, the construction related to the roadway is anticipated to add significant cost increases to the total construction capital cost due to the total realignment length of 1,800-feet and would result in a substantially longer construction period.

By preserving the existing masonry arch Strawberry Creek Bridge, Caltrans would also assume the liability and future maintenance issues due to the potential for structure deterioration and/or damage caused by future major storm events.

Based on the discussions above, it appears that there is no feasible and prudent avoidance alternative. However, a final decision will not be made until after the draft document has been circulated for public review.

This page intentionally left blank.

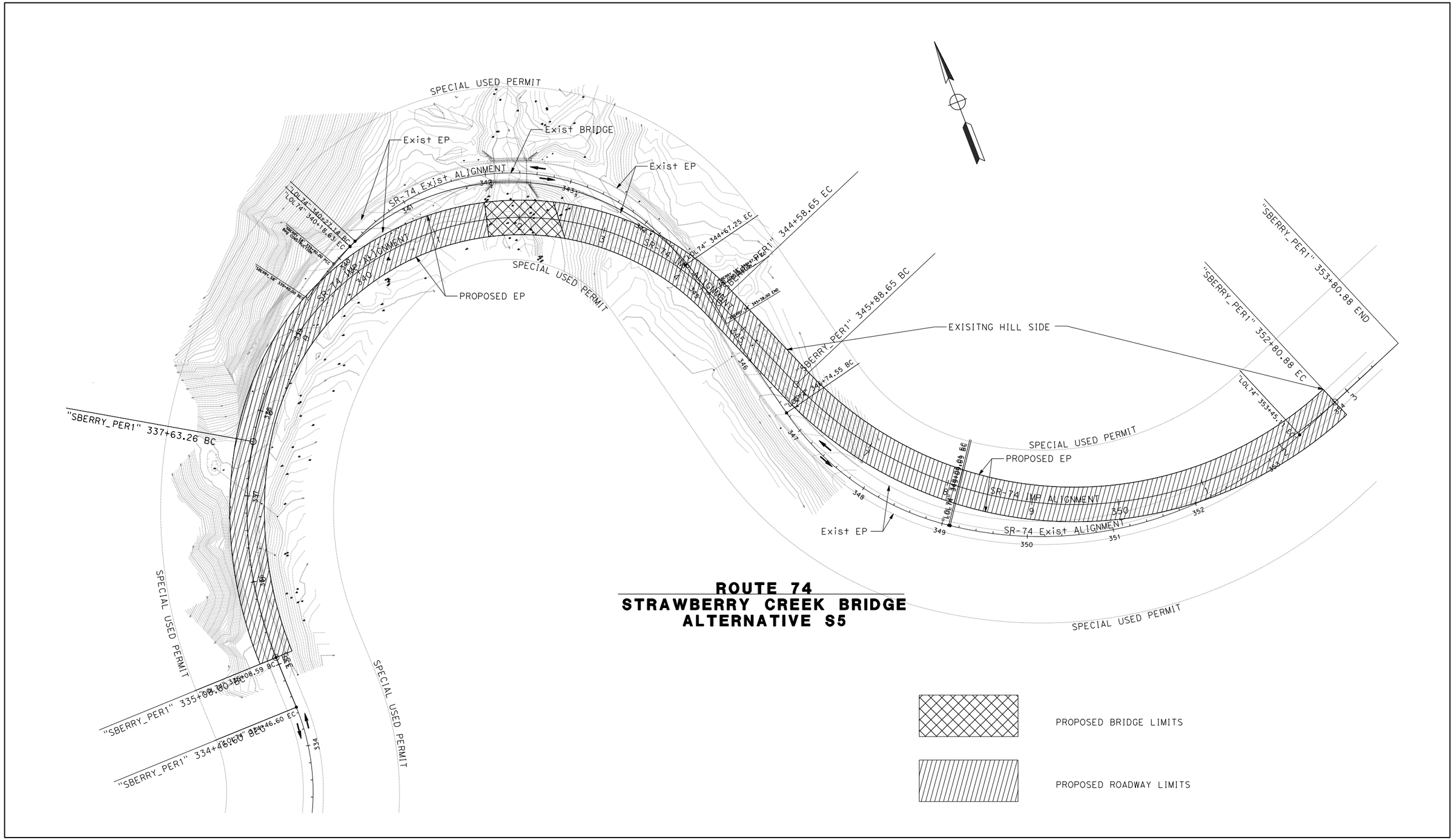


Figure 3
Strawberry Creek Bridge Avoidance Alternative
SR-74 Bridge Replacement Project

This page intentionally left blank.

2.4.3 Measures to Minimize Harm to the Section 4(f) Property

As part of the Section 106 process, a Memorandum of Agreement (MOA) will be approved and executed, between the State Historic Preservation Officer (SHPO) and the Department to address the finding of Adverse Effect. The MOA provides stipulations that the replacement bridges be designed and developed in consultation with the SHPO to minimize the visual impact on the setting. The MOA will be finalized after public review of the Environmental Assessment. This MOA also requires concurrence of the Department local office (Caltrans District 8).

The mitigation measures identified in the Memorandum of Agreement will be identified below, pursuant to Section 106 PA Stipulation XI, 36 CFR 800.6(a) and 800.6(b)(1), which will also be submitted to SHPO during public review of the Environmental Assessment and Programmatic Section 4(f) Evaluation.

Additionally, the project proposes other measures to ensure that the Strawberry Creek Bridge is consistent in architecture, scale, and size to the existing bridge and surroundings, to the extent feasible.

The following designs are standard requirements which are required by Caltrans for all projects:

- **Standard CR-1:** If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- **Standard CR-2:** In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

2.4.4 Coordination

Consultation with the SHPO and other cultural resources stakeholders has been initiated. Caltrans, as assigned by FHWA, has obtained SHPO concurrence with the determination of eligibility and the finding of effect for this resource.

The following coordination has occurred to address cultural resources pursuant to Section 106 of the National Historic Preservation Act:

- January 6, 2020—The APE for Cultural Resources was established in consultation with Shannon Clarendon, Caltrans Principal Investigator-Prehistoric Archaeology and Prakash Gowda, Caltrans Project Manager.
- April 17, 2020—A HPSR and Finding of Effect (FOE) was prepared and submitted to SHPO.

- June 8, 2020—SHPO concurrence was received on the HPSR and FOE.
- December 2020 – Draft MOA developed and submitted to CSO/SHPO for review and comment.

Chapter 3 Letters and Other Correspondence

Copies of letters and correspondence related to the coordination efforts done for the Individual Section 4(f) Evaluation are attached and included on the following pages.

This page was intentionally left blank.

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS
P.O. BOX 942874, MS 27
SACRAMENTO, CA 94273-0001
PHONE (916) 654-3567
FAX (916) 653-7757
TTY (916) 653-4086
www.dot.ca.gov

Making Conservation a California Way of Life

April 17, 2020

Julianne Polanco
State Historic Preservation Officer
1725 23rd Street, Suite 100
Sacramento, CA 95816

RE: Finding of Adverse Effect for Route 74 Bridge Upgrade Project in Riverside County

Dear Ms. Polanco:

The California Department of Transportation is initiating consultation with the SHPO regarding the proposed Route 74 Bridge Upgrade Project (EA: 1G470) in Riverside County. This consultation is undertaken in accordance with procedures outlined in the January 1, 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (Section 106 PA). Caltrans is currently complying with PRC 5024 pursuant to Stipulation III of the *Memorandum of Understanding between the California Department of Transportation and the California State Historic Preservation Officer regarding compliance with Public Resource Code 5024 and Governor's Executive Order W-26-92* (PRC 5024 MOU).

The proposed project involves the replacement of bridge rails (through removal and replacement of bridge railings, extensive bridge modification, and/or full bridge replacement) on two structures located on Route 74; one on the Ortega Highway portion of the road (PM 3.08), and a second on the Pines-to-Palms Highway section of the road (PM 53.45) in Riverside County. Both structures are masonry arch bridges with solid masonry parapet railings.

Enclosed please find a Historic Properties Survey Report (HPSR) and a Finding of Effect (FOE) Report for the project. Caltrans has identified three Historic Properties in the APE; the Morrill Canyon Bridge at PM 3.08 (Category 2), the Strawberry Creek Bridge at PM 53.45 (Category 2), and the Pines-to-Palms Highway, all of which have been previously determined eligible for the NRHP. The FOE proposes that a Finding of Adverse Effect is appropriate for the Undertaking. We are consulting with you at this time in accordance with Section 106 PA Stipulation X.C(1), which requires consultation with the SHPO regarding findings of adverse effect.

Pursuant to Stipulation X.A of the PA, Caltrans has applied the Criteria of Adverse Effect set forth at 36 CFR 800.5(a)(1) and finds that the undertaking would have an adverse effect on historic properties, as detailed in Sections V and VI of the FOE. Therefore, Caltrans has

This page was intentionally left blank.

determined that **the undertaking as a whole will have an Adverse Effect** and is seeking SHPO concurrence with these findings pursuant to Section 106 PA Stipulation XI.C and 36 CFR 800.5. Caltrans will continue consultation regarding resolution of adverse effect. We look forward to receiving your written response within 30 days of your receipt of this transmittal in accordance with Stipulation X.B.(1) of the Section 106 PA.

If you have any questions, please contact me or Caltrans District 8 PQS Historian Andrew Walters (phone: 909-388-2647; email: Andrew_walters@dot.ca.gov). Thank you for your assistance with this undertaking.

Sincerely,

David Price
Section 106 Coordination Branch Chief
Cultural Studies Office

Enclosure: Finding of Adverse Effect with attachments for the Route 74 Bridge Upgrade Project in Riverside County.

c. Andrew Walters, Branch Chief Environmental Support/Cultural Studies, Caltrans District 8
   Jill Hupp, 5024 Coordinator, Caltrans Cultural Studies Office

This page was intentionally left blank.

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

June 8, 2020

VIA EMAIL

In reply refer to: FHWA_2020_0417_002
CATRA_2020_0417_001

Mr. David Price, Section 106 Coordinator
Cultural Studies Office
Caltrans Division of Environmental Analysis
1120 N Street, PO Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Finding of Adverse Effect for the Proposed Route 74 Bridge Upgrade Project, Riverside County, CA

Dear Mr. Price:

Caltrans is initiating consultation about the subject undertaking in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA). Caltrans is also consulting in accordance with the Public Resources Code 5024 and pursuant to the *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code 5024 and Governor's Executive Order W-26-92* (5024 MOU). As part of your documentation, Caltrans submitted a Historic Properties Survey Report (HPSR), an Archaeological Survey Report, and a Finding of Effect (FOE) for the proposed project.

Caltrans proposes to replace bridge rails (through removal and replacement of bridge railings, extensive bridge modification, and/or full bridge replacement) on two structures located on Route 74; one on the Ortega Highway portion of the road (PM 3.08), and a second on the Pines-to-Palms Highway section of the road (PM 53.45) in Riverside County. Both structures are masonry arch bridges with solid masonry parapet railings.

This page intentionally left blank.

Caltrans has identified three Historic Properties in the APE; the Morrill Canyon Bridge at PM 3.08 (Category 2), the Strawberry Creek Bridge at PM 53.45 (Category 2), and the Pines-to-Palms Highway, all of which have been previously determined eligible for the NRHP.

Caltrans has applied the Criteria of Adverse Effect and found pursuant to Stipulation XI.C. of the PA, the project will have an adverse effect to the above historic properties.

Based on review of the submitted documentation, I have no objection to Caltrans' finding of adverse effect for this project.

If you have any questions, please contact Natalie Lindquist at (916) 445-7014 with e-mail at natalie.lindquist@parks.ca.gov Jeanette Schulz at (916) 445-7031 with e-mail at jeanette.schulz@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

This page intentionally left blank.

Chapter 4 Other Park, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or adjacent to the project area that do not trigger Section 4(f) protection either because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

Archaeological and historic sites within the Section 106 APE and all public and private parks, recreational facilities, and wildlife refuges within approximately 0.5 mile have been analyzed to determine whether they are protected Section 4(f) resources and whether the project would "use" the properties. There are no wildlife refuges with the 0.5 mile buffer.

4.1 Parks

The Strawberry Creek Bridge is located within the U.S. Forest Service (USFS) San Bernardino National Forest. Strawberry Creek provides recreational activities including fishing with rainbow trout planted twice per month during the spring and early summer months at Highway 243 and downstream near Camp Emerson, according to the USFS San Bernardino National Forest Interactive Visitor Map. A Special Use Permit from the USFS at Strawberry Creek Bridge will be required for the proposed project. The project will not require or result in temporary access impacts to the San Bernardino National Forest. The park will remain open during construction. The recreational activities at Strawberry Creek, including fishing, will not be impacted as these recreational activities occur northeast of the Strawberry Creek Bridge, along SR-243 near Idyllwild, and not at the bridge. A "use" of the parks would not occur as a result of the project and provisions of Section 4(f) are not triggered.

Chapter 5 Additional References

23 CFR 774: Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(F))

23 CFR 771.135: FHWA Environmental Impact and Related Procedures; Section 4(f) Technical Advisory T6640.8A, Guidance for Preparing and Processing

Initial Study/Environmental Assessment Annotated Outline, Caltrans. Located at: https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/forms-templates

Section 4(f) Policy Paper, March 1, 2005

United States Department of Agriculture, Forest Service, San Bernardino National Forest. Website located at: https://www.fs.usda.gov/sbnf

FHWA Guidance on Section 4(f) De Minimis

Programmatic Section 4(f) Evaluation

Submitted Pursuant to:
49 U.S.C. 303

SR-74 Bridge Replacement Project

Bridge No. 56-0169 and 56-0180

Riverside County, California

08-RIV-74 PM 2.9/3.2 & 53.3/53.5

California Department of Transportation, District 8

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 United States Code (U.S.C.) 327.

December 2020

SR-74 Bridge Replacement Project

RIVERSIDE COUNTY, CALIFORNIA
08-RIV-74-PM 2.9/3.2 & 53.3/53.5

EA 1G470/ 0816000001

PROGRAMMATIC SECTION 4(F) EVALUATION
Submitted Pursuant to:

49 USC 303

THE STATE OF CALIFORNIA

Department of Transportation as assigned

_____
Date of Approval

_____
Renetta Cloud
Senior Environmental Planner

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

Contents

Chapter 1 **Introduction** **1-1**
Chapter 2 **Description of Proposed Project and Alternatives** **2-1**
2.1 Project Purpose and Need 2-1
2.1.1 Project Purpose 2-1
2.1.2 Project Need 2-1
2.2 Project Description/Alternatives 2-1
2.2.1 Alternatives 2-2
2.3 Description of Section 4(f) Property 2-9
2.4 Morrill Canyon Bridge 2-9
2.5 Strawberry Creek Bridge 2-10
2.5.1 Impacts on Secton 4(f) Properties 2-17
2.5.2 Applicability of the Programmatic Section 4(f) 2-20
2.5.3 Avoidance Alternatives and Other Findings 2-22
2.5.4 Measures to Minimize Harm to the Section 4(f) Property 2-33
2.5.5 Coordination 2-33

Chapter 3 **Letters and Other Correspondence** **3-1**
Chapter 4 **Other Park, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)** **4-1**
4.1 Trails 4-1
4.2 Parks 4-1
Chapter 5 **Additional References** **5-1**

List of Figures

Figure **On Page**

Figure 1 Regional Vicinity 2-5
Figure 2 Project Location 2-7
Figure 3A Morrill Canyon Bridge APE 2-13
Figure 3B Strawberry Creek Bridge APE 2-15
Figure 4 Morrill Canyon Bridge Avoidance Alternative (Sheet 1 of 2) 2-27
Figure 4 Morrill Canyon Bridge Avoidance Alternative (Sheet 2 of 2) 2-29
Figure 5 Strawberry Creek Bridge Avoidance Alternative 2-31

List of Tables

Table 2-1, Resources Listed Eligible for Listing in the National Register of Historic Places.....2-9

Acronyms and Abbreviations

ADA	Americans with Disabilities Act
APE	Area of Potential Effects
BMPs	Best management practices
CRHR	California Register of Historical Resources
DIB	Design Information Bulletin
DPR	Department of Parks and Recreation
EBL	Eligible Bridge List
FHWA	Federal Highway Administration
FOE	Finding of Effect
FTIP	Federal Transportation Improvement Program
HAER	Historic American Engineering Record
HBP	Highway Bridge Program
MLD	Most Likely Descendent
MOA	Memorandum of Agreement
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NPS	National Parks Service
NRHP	National Register of Historic Places
SANBAG	San Bernardino Associated Governments
SD	Structurally Deficient
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
USFS	U.S. Forest Service
USGS	U.S. Geological Survey

Chapter 1 Introduction

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C. 303 (including 23 USC 138, and 23 CFR 774) declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- There is no prudent and feasible alternative to using that land; and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

This page intentionally left blank.

Chapter 2 Description of Proposed Project and Alternatives

2.1 Project Purpose and Need

2.1.1 Project Purpose

The purpose of the project is to ensure the safety and mobility for the traveling public by replacing the aging structures and upgrading the bridge rails at Morrill Canyon Bridge and Strawberry Creek Bridge, in order to provide continued connectivity along SR-74.

2.1.2 Project Need

The Morrill Canyon Bridge and Strawberry Creek Bridge were initially identified for bridge rail upgrade or replacement in 1984. Due to the number of rail upgrade/replacment needs statewide, the bridge structures have been prioritized based on traffic volume and geometrics. The Structure Replacement and Improvement Needs (STRAIN) Report, dated October 2014, also identifies several longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arches. In addion, both structures have nonstandard lane and shoulder width. Due to the significant deterioration and nonstandard features, there is a need to replace these structures to meet current design, crash, and safety standards.

The condition of the bridge structures are described in the Bridge Inspection Reports based on routine inspection on each of the bridges performed in August 2013. The following findings were noted:

Morrill Canyon Bridge (Bridge No. 56-0169):

- Bridge rails do not meet current federal crash standards.
- There are longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arch.
- The existing shoulder and lane width do not comply with current design standards.
- This bridge structure was built in 1931 and has exceeded its useful design life.
- Cross sectional area of the bridge is not capable of accommodating 50-and 100-year storm events.

Strawberry Creek Bridge (Bridge No. 56-0180):

- Bridge rails do not meet current federal crash standards.
- There are moderate transverse and map AC cracks throughout the deck.
- Minor to moderate longitudinal and transverse soffit cracks (less than 0.05 inches wide and 5 foot spacing) with efflorescence.
- The existing shoulder and lane width do not comply with current design standards.
- This bridge structure was built in 1929 and has exceeded its useful design life.
- Cross sectional area of the bridge is not capable of accommodating 100-year storm events.

2.2 Project Description/Alternatives

2.2.1 Alternatives

2.2.1.1 NO-BUILD ALTERNATIVE

Under the No-Build Alternative, no new or modified bridge or other physical improvements would be constructed on SR-74 at Morrill Canyon Bridge or Strawberry Creek Bridge. The Morrill Canyon Bridge was built in 1931 and has exceeded its useful design life. The Strawberry Creek Bridge was built in 1929 and has also exceeded its useful design life. The existing bridges would be left in its current condition, and no structural or functional deficiencies would be corrected. Ongoing maintenance would continue.

The No-Build Alternative would not meet the project purpose and need as previously described.

2.2.1.2 PROPOSED BUILD ALTERNATIVES

The project proposes to replace Morrill Canyon Bridge and Strawberry Creek Bridge in Riverside County. Both bridge locations are in unincorporated areas and not within the boundaries of a town, municipality, or city. The Morrill Canyon Bridge is in the Santa Ana mountain range and within the jurisdiction of the Cleveland National Forest, and the Strawberry Creek Bridge is located in the San Jacinto mountain range within the jurisdiction of the San Bernardino National Forest. The nearest town to Morrill Canyon Bridge is the town of El Cariso and the nearest town to Strawberry Creek Bridge is the town of Mountain Center. The project has a no-build alternative, Morrill Canyon Bridge has one alternative and Strawberry Creek Bridge has two alternatives. In order to replace each structure, the project would construct a

temporary bridge at each location, detour traffic from the existing bridge to the temporary bridge, or depending on the alternative, use part of the existing bridge for reverse traffic conrol, remove the existing structure, and construct the proposed bridge.

Morrill Canyon Bridge Alternative M1

- Alternative M1 (12-foot lane in each direction, 2-foot median, and 8-foot shoulders);

The Morrill Canyon Bridge alternative involves reconstructing the approach of the roadway to the bridge ends, a new bridge rail that will match the current aesthetics of the structure, reconstructing 1 overside drain system, new Midwest Guardrail System (MGS), 12-inch rumble strip, and temporary two-lane detour bridge to be built on the south side of the bridge for detour and to avoid the Cleveland National Forest. Regrading of the access driveway to Tenaja Truck Trail will aslo occur with a staging area at PM 2.9.

Strawberry Creek Bridge Alternative S1 and S3

- Alternative S1 – The proposed alignment for this alternative will be approximately 13-feet south of the existing yellow stripe. Reverse traffic control will be utilized for all stages of construction. As such, no temporary detour bridge would be required. This alternative would result in 12-foot lanes in each direction and standard 8-foot shoulders, reconstructing the roadway approach to the bridge's approach slabs, new bridge rail that will match the current aesthetics of the structure, reconstructing 2 overside drain systems, and new MGS. A staging area would be located at PM 53.65.

- Alternative S3 – The proposed alignment would be designed to closely match the existing yellow stripe to minimize the permanent impacts. A two-way detour is proposed approximately 42.5-feet south of the existing yellow stripe to maintain traffic flow during construction. This alternative will result in a larger temporary environmental impact footprint compared to Strawberry Creek Bridge Alternative S1. This alternative involves 12-foot lanes in each direction and standard 8-foot shoulders, reconstructing the roadway approach to the bridge's approach slaps, new bridge rail that will match the current aesthetics of the structure, reconstructing 1 overside drain system, new MGS, and constructing two-way traffic detour bridge with temporary pavement approach to accommodate 11-foot lanes, 1-foot shoulder, and temporary railing. A staging area would also be located at PM 53.65.

This page was intentionally left blank.

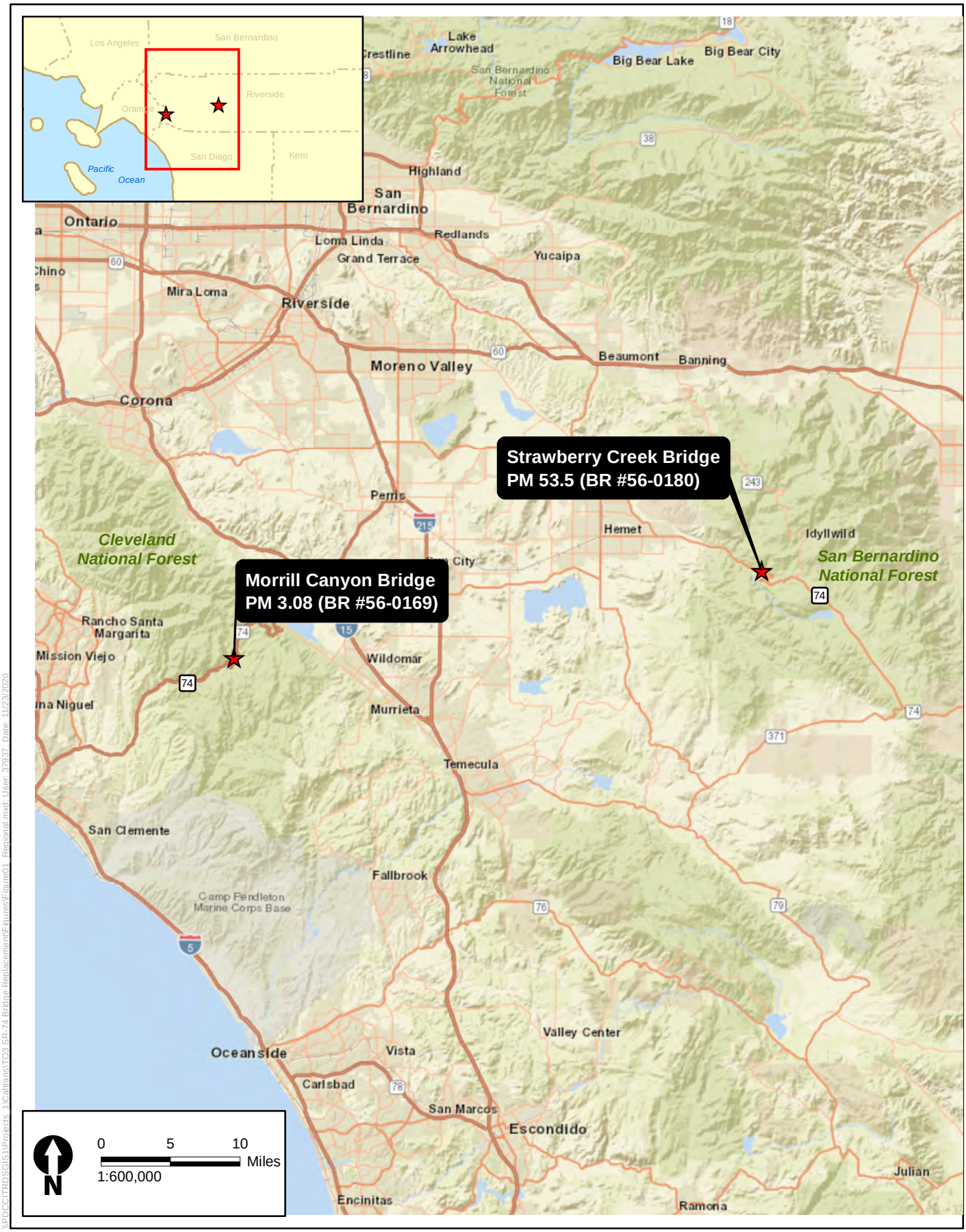
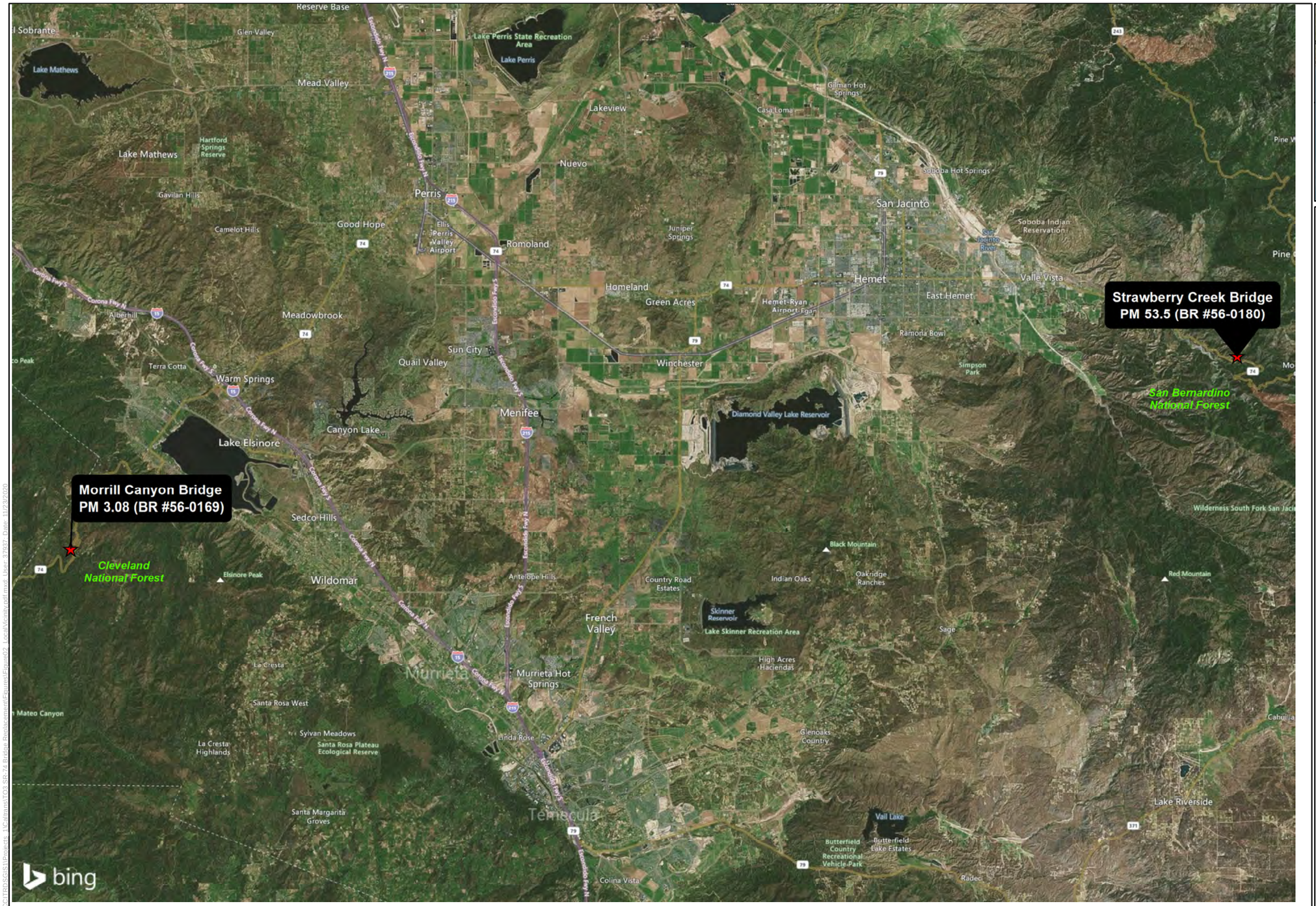
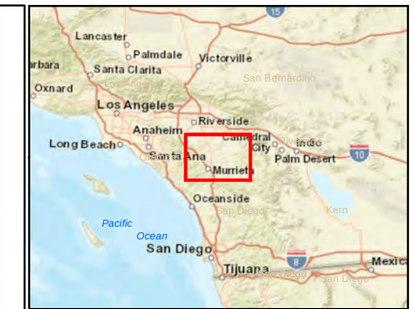


Figure 1
Regional Vicinity Map
SR-74 Bridge Replacement Project

This page intentionally left blank.





Legend

★ Bridge Locations

N

0 1 2 Miles

1:203,502

Figure 2
Project Location Map
SR-74 Bridge Replacement Project

This page intentionally left blank.

2.3 Description of Section 4(f) Property

Resources subject to Section 4(f) consideration include publicly owned lands consisting of a public park/recreational areas; public wildlife and waterfowl refuges of national, state, or local significance; or historic sites of national, state, or local significance, whether publicly or privately owned. The San Juan Loop Trailhead and Bear Canyon Trailhead are Section 4(f) resources within the project vicinity, however, no use of these resources would occur due to implementation of the proposed project. Strawberry Creek also offers recreational activities for fishing and would be considered a Section 4(f) resource. No use of Strawberry Creek would occur due to implementation of the proposed project. These resources would not be affected by the proposed project, access would not be affected to these resources, and no changes to the use of these resources would occur as a result of the project. Refer to Section 2.1.1 of the ISEA for further details on parks and recreational facilities.

There are significant historic sites in the project area that are considered to be Section 4(f) resources. Under Section 4(f), a significant historic site is defined as on, or eligible for listing in the NRHP. The resources that are on the list or eligible for listing are provided in Table 2-1:

Table 2-1. Resources Listed or Eligible for Listing in the National Register of Historic Places

Identification, Name	Location, Description	Use	Significance
CA-RIV-10575H (P-33-006976)	Strawberry Creek Bridge No. 56-0180	Yes	Eligible for NRHP
CA-RIV-10574H (P-33-007236)	Morrill Canyon Bridge No. 56-0169	Yes	Eligible for NRHP
CA-RIV-8089H(P-33-015321)*	Pines-to-Palms Highway	Yes	Eligible for NRHP
Source: Historic Property Survey Report, August 2020. Notes: *= The Pines-to-Palms Highway is analyzed separately in the Individual Section 4(f) Evaluation.			

This section will discuss only the Section 4(f) resources in which a “use” occurs. Use occurs when 1) the property is acquired for a transportation project, 2) there is an occupancy of land that is adverse to the preservationist purpose of Section 4(f), or 3) there is a proximity impact that substantially impairs the purpose of the land.

As indicated by the table, a use of the Morrill Canyon Bridge and Strawberry Creek Bridge occurs as part of the project. A use of the San Juan Loop Trailhead, Bear Canyon Trailhead, and Strawberry Creek does not occur as part of the project, and a discussion of these resources is included under Section 4, “Other Parks, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)”.

2.4 Morrill Canyon Bridge

The most western portion of the project is located about four miles southwest of Lake Elsinore, near where the Santa Ana Mountains and Elsinore Mountains meet at San Juan Canyon, and the juncture of these two ranges facilitates precipitation within the project area. Both Decker Creek and Morrill Creek drain off the back southwest side of the Elsinore range, and are tributaries of San Juan Creek. The level of precipitation averages between 12 to 16 inches of rain per year. Summers are hot and dry, countering the cool and moist winters. Plant species in the area consists of but not limited to: Jeffrey pine (*Pinus jeffreyi*), ponderosa pine (*Pinus ponderosa*), manzanita (*Arctostaphylos*), California lilac (*Ceanothus spp.*), chinquapin (*Chrysolepis*), California sagebrush (*Artemisia californica*), white sage (*Salvia apiano*), and California buckwheat (*Eriogonum fasciculatum*).

Morrill Canyon Bridge is an earth-filled masonry closed-spandrel span with a concrete-lined arch. The bridge was built in 1931 on Ortega Highway, a named portion of SR-74 located between San Juan Capistrano in Orange County and Lake Elsinore in Riverside County. The bridge also has a solid masonry parapet railing that is integral with the spandrel and wing wall, as well as low masonry curbs or “wheel guards” along the inside of the railing that were not an unusual feature for bridges built during this time period. The bridge is located over a small tributary of San Juan Creek that flows through Morrill Canyon. The dimensions of the bridge are noted in the HPSR as being 36-feet in total length with a roadway width of 24-feet pavement with 6-inch stone curbs. The arch width is 30-feet 6-inches measured across the channel at foundation level, and a height of 9-feet measured from the center of the stream channel up to the center of the arch ring. The bridge was determined eligible as part of the 2003 Caltrans Survey and Evaluation of Masonry Arch Bridges as a significant example of a rare type; a closed-spandrel masonry arch bridge. The State Historic Preservation Officer (SHPO) concurred to the results of that evaluation in May 2004. This resources is state-owned and noted as a Category 2 (eligible) structure in the State Historic Bridge Inventory.

2.5 Strawberry Creek Bridge

The most eastern portion of the project is situated on the southwest side of the San Jacinto Mountains about four miles southwest of Idyllwild. Compared with Morrill Canyon, the Strawberry Creek drains the largest area, including both Strawberry and Fern Valleys, to its sources at the southwest facing base of Marion Mountain and Lilly Rock. The general environment of the APE and the surrounding region is dictated by the Mediterranean climate with hot, dry summers, and mild, wet winters, typical of southern California. Temperatures reach well over 100 degrees Fahrenheit in summer, and dip to near freezing in the winter. The average

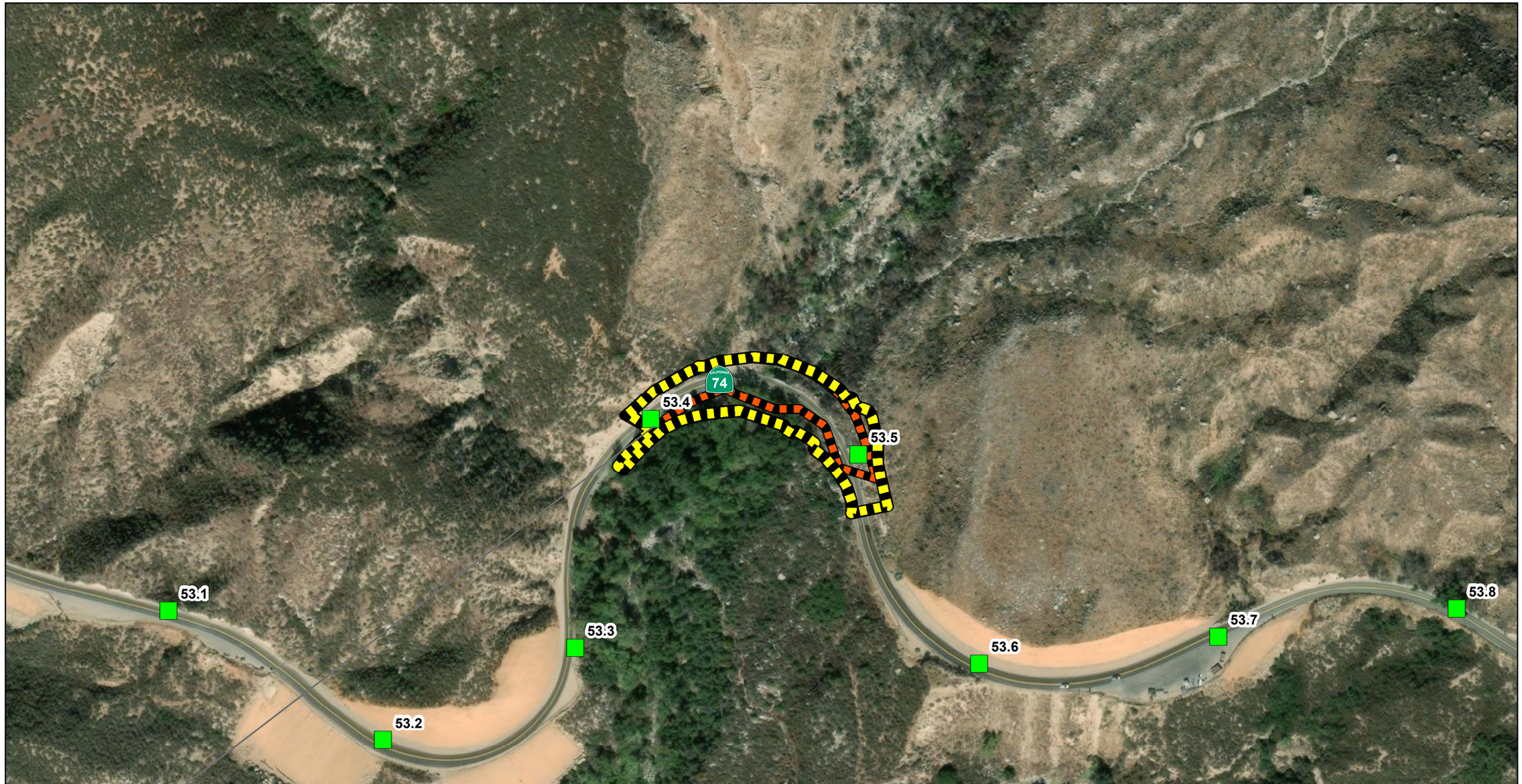
annual rainfall is approximately 16 inches. Plant species in this portion of the study area consists mainly of Russian thistle (*Salsola tragus*), sunflower (*Helianthus californicus*), mulefat (*Baccaris salicifolia*), willow (*Salix lasiolepis*), buckwheat (*Eriogonum fasciculatum*), tree tobacco (*Nicotiana glauca*), datura (*Datura wrightii*), foxtail (*S. Faberi*), arrow weed (*Pluchea sericea)*, and cottonwood (*Populus fremonti*).

Strawberry Creek Bridge is a masonry (stone and concrete) arch bridge built in 1929. It is located over Strawberry Creek which flows perpendicular to SR-74 in the western-central portion of Riverside County in the San Jacinto Mountains. The total length of the bridge is 48-feet 6-inches with a roadway width of 23-feet. The arch width is 37-feet 8-inches measured across the channel at the foundation level, with a height of 12-feet measured at the center of the channel up to the center of the arch ring. The bridge is a contributing element to the overall NRHP eligibility of the Pines to Palms Highway, which was created as a scenic travel way linking the mountain areas with the increasingly popular desert resorts, vacation, and health facilities around Rancho Mirage, Indian Wells, and Palm Desert. This closed-spandrel masonry and concrete arch bridge is state-owned and noted as a Category 2 (eligible) structure in the State Historic Bridge Inventory.

See Figure 3A, 3B, and 3C for the APE map which shows the Morrill Canyon Bridge and Strawberry Creek Bridge.

This page intentionally left blank.

REVISED AREA OF POTENTIAL EFFECTS (APE)
FOR EA :1G470: RIV 74 REPLACE BRIDGES/UPGRADE GUARDRAIL
STATE ROUTE 074-PM 2.5/3.5, 53/54 IN RIVERSIDE COUNTY



APE Approval

11/24/2020

Caltrans Project Manager **Date**

11/2 /2020

Caltrans PQS **Date**

1:2,525

0 135 270 540 810
Feet

0 45 90 180 270
Meters

N

REVISED APE

APE

Figure 3A

NOVEMBER 2020

EA: 1G470
08-RIV-074-PM 2.5/3.5, 53/54
PN 08-1600-0001
RIV 74 REPLACE BRIDGES/ UPGRADE RAIL

CALTRANS Data Informational Only

This page was intentionally left blank.

REVISED AREA OF POTENTIAL EFFECTS (APE)
FOR EA :1G470: RIV 74 REPLACE BRIDGES/UPGRADE GUARDRAIL
STATE ROUTE 074-PM 2.5/3.5, 53/54 IN RIVERSIDE COUNTY

APE Approval

11/24/2020

Caltrans Project Manager **Date**

11/2 /2020

Caltrans PQS **Date**

1:2,525

0 135 270 540 810

Feet

0 45 90 180 270

Meters

N

REVISED APE

APE

Figure 3B

NOVEMBER 2020

EA: 1G470
08-RIV-074-PM 2.5/3.5, 53/54
PN 08-1600-0001
RIV 74 REPLACE BRIDGES/ UPGRADE RAIL

CALTRANS Data Informational Only

This page was intentionally left blank.

Impacts on Section 4(f) Properties

2.5.1.1 BUILD ALTERNATIVES

Morrill Canyon Bridge Alternative M1, Strawberry Creek Bridge Alternative S1 and S3

Facilities, Functions, and/or Activities Potentially Affected

Morrill Canyon Bridge and Strawberry Creek Bridge are located within the USFS Cleveland National Forest and San Bernardino National Forest. Construction of the build alternatives would result in short-term construction-related traffic delays along SR-74 in the vicinity of the two bridges. Under each of the build alternatives, removal of the Morrill Canyon Bridge and Strawberry Creek Bridge would constitute an adverse effect.

Accessibility

Under the build alternatives for Morrill Canyon Bridge and Strawberry Creek, the following would likely occur: temporary impacts due to construction-related traffic delays along SR-74 in the area of Morrill Canyon Bridge, and Strawberry Creek Bridge. A two-way traffic detour south of the existing Morrill Canyon Bridge would maintain traffic flow for Morrill Canyon Bridge Alternative M1. At the Strawberry Creek Bridge, a reverse traffic control with temporary traffic signal would be utilized for Strawberry Creek Bridge Alternative S1 and a two-way traffic detour south of the existing bridge would be utilized for Strawberry Creek Bridge Alternative S3 to maintain traffic flow and accessibility. These impacts are not related to the historic value of the Morrill Canyon Bridge, or Strawberry Creek Bridge.

Visual

Under each of the build alternatives, possible visible changes associated with a new structure would include vegetation and tree removal to accommodate the increased width of the new bridges. Furthermore, under each of the build alternatives, the new bridge rail will be built to match the current aesthetics of the structure.

Morrill Canyon Bridge Alternative M1 and Strawberry Creek Bridge Alternative S1 and S3 would result in bridge replacement, which would constitute an adverse effect. Based on the proposed construction methods and the application of the Criteria of Adverse Effect, Caltrans has determined that there are historic properties that would be affected pursuant to Section 106 PA Stipulation IX.B, and that the project would have an adverse effect on the Morrill Canyon Bridge, and the Strawberry Creek Bridge. All consist of built-environment resources that are considered elements of, or connect to, the highway in some manner.

Noise

Under each of the build alternatives, the following would likely occur: (1) a temporary increase in community noise due to use of construction equipment and vehicles during construction

activities. This impact is not related to the historic value of the Morrill Canyon Bridge, or Strawberry Creek Bridge.

Air Quality

Under this alternative, the following would likely occur: (1) disturbance of asbestos containing materials (ACMs); (2) increases in construction-related emissions; and (3) potential diesel health risk from construction activities. These impacts are not related to the historic value of the Morrill Canyon Bridge, or Strawberry Creek Bridge.

Water Quality

The following temporary construction-related impacts could occur (1) release of hazardous materials [this effect is unlikely as explained further in the Initial Study/Environmental Assessment (IS/EA) prepared for the project]; (2) excavation of earthwork, resulting in an increase in surface water runoff , erosion, and increased pollution to local surface waters due to increased sediment loadings or discharge of construction-related pollutants (this effect is unlikely as explained further in the IS/EA for the project). These temporary construction-related impacts are not related to the historic value of the Morrill Canyon Bridge, or Strawberry Creek Bridge.

Morrill Canyon Bridge Alternative M1, and Strawberry Creek Bridge Alternative S1 and S3 is not expected to permanently nor substantially affect the quantity or quality of surface water in the study area. Although the alternatives would result in a bridge that is wider than the existing structure, resulting in a slight increase in impervious surfaces and contributing to an increase in the amount of onsite runoff, BMPs would be implemented. Additionally, this alternative would not alter the existing drainage patterns beyond a potentially slight increase in surface runoff. No permanent impacts would occur.

Vegetation

Clearing, grubbing, and bridge pier construction as a result of Morrill Canyon Bridge Build Alternative M1, and Strawberry Creek Bridge Alternative S1 and S3 are anticipated to directly impact Southern Coast Live Oak Riparian Forest within the Morrill Canyon Bridge project impact area (PIA) and Southern Sycamore Alder Riparian Woodland in the Strawberry Creek Bridge PIA. Areas where the proposed lane widening, shoulder widening, the placement of the upgraded guard rails and/or any other associated or required project construction encroaches on to undeveloped/undisturbed natural vegetation communities are considered permanent impacts. Temporary impacts would generally be caused by access for construction equipment and grading limits. The project will also have the potential to impact San Miguel savory, summer holly, mesa horkelia, intermediate monardella, and southern mountains skullcap for which suitable habitat is present within the Morrill Canyon biological study area (BSA) and San Jacinto mariposa-lily, Plummer’s mariposa-lily, Parry’s spineflower, white-bracted spineflower, Mojave tarplant,

California beardtongue, and southern mountains skullcap for which suitable habitat is present within the Strawberry Creek BSA. To ensure that the project will not impact special-status plant species with suitable habitat present in the BSA, avoidance and minimization measures will be implemented. The impacts to vegetation and plant species is not related to the historic value of the Morrill Canyon Bridge, or Strawberry Creek Bridge

Wildlife

Clearing, grubbing, and construction noise have the potential to impact wildlife species including nesting birds. Clearing and grubbing would remove vegetation where shoulder widening will occur, which would decrease foraging and nesting habitat availability for avian species. The project is anticipated to permanently impact suitable habitat for southern mountain yellow-legged frog in the Strawberry Creek Bridge PIA and habitat occupied by Coast Range newt and arroyo toad in the Morrill Canyon Bridge BSA. Arroyo toad and Coast Range newt also have the potential to be crushed by construction equipment during construction activities. Decreasing slopes in the area adjacent to Morrill Canyon Bridge could potentially allow adult arroyo toads to climb up slopes and access the roadway which would result in higher mortalities or injuries for the species on SR-74. No day-roosting habitat for bats is present within either of the two bridge structures, however, day roosting habitat is present in the foliage, crevices, or cavities of mature trees and snags that will be removed during clearing associated with the installation of the temporary bridges for Morrill Canyon Bridge Alternative M1 and Strawberry Creek Bridge Alternative S3.

The project bridges and their corresponding BSAs are located within the Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP). The MSHCP resources detected during the surveys in the Morrill Canyon Bridge BSA include arroyo toad and Coast Range newts, which are anticipated to be impacted by this project. The project will impact mountain yellow-legged frog habitat in the Strawberry Creek Bridge PIA.

The impacts to wildlife species is not related to the historic value of the Morrill Canyon Bridge, or Strawberry Creek Bridge.

2.5.1.2 NO-BUILD ALTERNATIVE

Facilities, Functions, and/or Activities Potentially Affected

No replacement of Morrill Canyon Bridge or Strawberry Creek Bridge would occur. Maintenance activities would continue, however, no construction-related impacts would occur with the No-Build Alternative.

Accessibility

As there would be no construction on the bridges, traffic-related delays along SR-74 would not occur. Accessibility along the bridges would remain the same and maintained as currently experienced.

Visual

Under the No-Build Alternative, bridge replacement would not occur; therefore, impacts on visual setting/aesthetic conditions would not occur.

Noise

Under the No-Build Alternative, bridge replacement would not occur; therefore, impacts from noise would not occur.

Air Quality

Under the No-Build Alternative, bridge replacement would not occur; therefore, impacts on air quality would not occur.

Water Quality

Under the No-Build Alternative, bridge replacement would not occur; therefore, impacts on water quality would not occur.

Vegetation

Under the No-Build Alternative, bridge replacement would not occur; therefore, impacts on vegetation would not occur.

Wildlife

Under the No-Build Alternative, bridge replacement would not occur; therefore, impacts on wildlife would not occur.

2.5.2 Applicability of the Programmatic Section 4(f)

As an alternative to preparing a full individual Section 4(f) evaluation, a programmatic evaluation may be utilized. Programmatic Section 4(f) evaluations streamline the documentation and approval process and amount of interagency coordination that is required for an individual Section 4(f) evaluation. Draft and final evaluations do not need to be prepared and FHWA legal sufficiency review is not required. Interagency coordination is required only with the official(s) with jurisdiction and not with DOI, USDA, or HUD. If any of the following conditions exist, use of any of the programmatic applications do not apply:

- Construction of transportation facilities on new alignment;

- Projects for which an EIS is prepared (does not apply to the Net Benefit Programmatic);
- Specific conditions of each type of programmatic application are not met;
- Projects with one or more Section 4(f) uses that do not meet the criteria for use of any of the programmatic 4(f)s; or
- Proximity impacts resulting in constructive use are involved.

Caltrans, as assigned by FHWA, has determined that certain highway projects may comply with the requirements of Section 4(f) under a nationwide programmatic evaluation rather than through an individual evaluation. Five nationwide programmatic Section 4(f) evaluations are available. One covers projects that use historic bridges. The second covers projects that use minor amounts of land from parks, recreational areas, and wildlife and waterfowl refuges. The third covers projects that use minor amounts of land from historic sites. The fourth covers independent walkway and bikeway projects. The fifth applies when there is a net benefit to a Section 4(f) property. For the historic bridge programmatic Section 4(f) Evaluation, the project must meet the conditions for all programmatic 4(f) applications (above) with regard to the type of project, lack of proximity impacts resulting in a constructive use, and the type of environmental document and all of the following conditions:

- The bridge is to be replaced or rehabilitated using federal funds;
- The bridge must listed on or eligible for listing on the National Register of Historic Places;
- The bridge cannot be a National Historic Landmark;
- Caltrans, as delegated by FHWA, determines that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation; and
- Caltrans, SHPO, and the ACHP must have reached agreement through full implementation of the Section 106 process on project effects and a Memorandum of Agreement on mitigation measures.

The project meets the applicability criteria for the Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges (1983) because:

- All build alternatives for the project is eligible for Federal-aid funding;
- The Morrill Canyon Bridge is a Category 2 bridge and eligible for the National Register of Historic Places (NRHP);
- The Strawberry Creek Bridge is a Category 2 bridge and eligible for the NRHP;
- The Morrill Canyon Bridge and Strawberry Creek Bridge is not a National Historic Landmark; and
- Caltrans, as delegated by FHWA, has determined that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.

The historic bridges covered by this Programmatic Section 4(f) Evaluation are historic, yet also part of either a Federal-aid highway system or a state or local highway system. The programmatic evaluation can be used because, even though historic bridges are on or eligible for inclusion on the NRHP, the bridges must perform as an integral part of a modern transportation system.

The programmatic evaluation acknowledges that the project will impair the historic integrity of the bridge by replacement/demolition. If the project meets the certain conditions as outlined in requirements for this programmatic evaluation, it will satisfy the requirements of Section 4(f) and confirm there is (1) no feasible and prudent alternative and (2) that the project includes all possible planning to minimize harm.

At the time the FONSI is signed, the Department will also approve this Programmatic Section 4(f) Evaluation based on SHPO approval of the Memorandum of Agreement (MOA) which occurs after public circulation of the environmental document. An executed MOA details the stipulations required to resolve the adverse effects of the undertaking on these Historic Properties, as required by CFR 800 and the Section 106 Programmatic Agreement. The text that follows is supporting documentation for Caltrans' determination.

2.5.3 Avoidance Alternatives and Other Findings

The following alternatives avoid any use of the historic bridge:

1. Do Nothing.
2. Build a new structure at a different location without affecting the historic integrity of the existing Morrill Canyon Bridge, as determined by procedures implementing the National Historic Preservation Act (NHPA).
3. Build a new structure at a different location without affecting the historic integrity of the existing Strawberry Creek Bridge, as determined by procedures implementing the NHPA.

Under the Do Nothing Alternative, no new replacement bridge or other physical improvements would be constructed at Morrill Canyon Bridge or Strawberry Creek Bridge. The existing bridges would be left in its current condition, and no structural or functional deficiencies would be corrected. Ongoing maintenance would continue. The Do Nothing Alternative does not assume that the existing bridge would undergo seismic retrofitting.

The Do Nothing Alternative fails to address the project purpose and need and provides none of the project benefits cited with the project. This alternative would maintain the existing bridge structures with nonstandard bridge rails, lane widths and shoulder widths. The bridge structures for Morrill Canyon Bridge and Strawberry Creek Bridge have exceeded their useful design life

and will deteriorate further resulting in operational deficiencies and will necessitate future costly maintenance measures. With no improvements, there is no capital cost for this alternative. However, there would be continued costs associated with maintenance, periodic rehabilitation, and safety and operational improvements to the existing facility.

- Maintenance—The Do Nothing Alternative does not correct the situation that causes the bridge to be considered deficient and not meet current federal crash standards and design standards or deteriorated. These deficiencies would not offer protection to errant vehicles and do not result in a safer bridge rail configuration. Normal maintenance is not considered adequate to cope with the situation.
- Safety—The Do Nothing alternative does not correct the situation that causes the bridge to be considered deficient.

Replacement of the Morrill Canyon Bridge and Strawberry Creek Bridge is necessary because the current facility exhibits structural and functional deficiencies. The deficient conditions of the bridge structures are described in the Bridge Inspection Reports based on routine inspection of each of the bridges performed in August 2013. The Structure Replacement and Improvement Needs (STRAIN) Report, dated October 2014, also identifies several longitudinal and transverse cracks with efflorescence and minor spalls on the soffit of the arches.

Due to the significant deterioration and nonstandard features, there is a need to replace these bridge structures to meet current design, crash, and safety standards.

New Bridge with Permanent Alignment South while Preserving the Existing Morrill Canyon Bridge. With this alternative it is proposed to preserve the existing masonry arch bridge by realigning the roadbed approximately 62-feet south of the existing Morrill Canyon Bridge and resulting in the total realignment length of 2,400 feet. The new bridge would have two 12-foot lanes, 2-foot median buffer and 8-foot shoulders.

With this alignment, the replacement bridge would be located on the upstream side and approximately 20-feet away from the existing masonry arch Morrill Canyon Bridge to minimize the backwater effects on the new bridge including excess of unnaturally high stage of stream caused by under capacity to convey the water of the existing bridge on the downstream during major storm events. This alternative would have the largest environmental footprint when compared with the Morrill Canyon Bridge Alternative M1 and M2 and would affect several private owned parcels instead of 1 parcel with Morrill Canyon Bridge Alternative M1 and M2.

The upstream side of the channel, located west of the existing bridge along the eastbound travel lanes, runs almost parallel with the existing roadbed. As a result, a part of the new alignment will fall within the upstream channel resulting in a 380-foot long bridge to span over the channel.

Compared with the Morrill Canyon Bridge Alternative M1 and M2 with a proposed bridge length of 35-feet, the bridge length for this alternative is more than 10 times longer and would increase the structure cost and ultimately increase the total construction capital cost. Furthermore, part of this alignment, east of the replacement bridge on the eastbound travel, would cut through the existing hillside and would result in significant excavation. The roadway work is anticipated to add a significant cost increase to the total construction capital cost due to the proposed 2,400-feet realignment and additional construction days.

By preserving the existing masonry arch Morrill Canyon Bridge, Caltrans would assume future liability and maintenance issues due to the possibility of the structure deteriorating over time or damage caused by major flooding and storm events.

It is not feasible or prudent to construct a new bridge adjacent to or away from the existing bridge due to the significant environmental, right of way, total construction capital costs, and schedule delays due to design issues associated with this alternative.

New Bridge with Permanent Alignment South while Preserving the Existing Strawberry Creek Bridge. This alternative would preserve the existing masonry arch Strawberry Creek Bridge and realign the roadbed approximately 54-feet south of the existing bridge with a total realignment length of 1,800-feet. The new bridge would have two 12-foot lanes and 8-foot shoulders.

With this alignment, the new bridge would be located on the downstream side and approximately 20-feet from the existing masonry arch Strawberry Creek Bridge so as to avoid the overtopping flow of the existing bridge onto the new replacement bridge during a major storm event. This alternative would consist of the largest footprint compared with Strawberry Creek Bridge Alternative S1 and S3 and would require more than 100-feet in width of Special Use Permit from the USFS. The realignment would also result in an 85-foot bridge compared with a 50-foot bridge as proposed in Strawberry Creek Bridge Alternative S1 and S3. This would result in an increase in the structure cost and ultimately would result in increasing the total construction capital cost. Furthermore, portions of this alignment, east of the replacement structure on the westbound travel lanes would cut through the existing hillside resulting in significant excavation. This hillside, based on visual assessment, is susceptible to rock fall. Due to these issues, moving the roadway closer to the cut slope would require additional measures. The construction related to the roadway is anticipated to add significant cost increases to the total construction capital cost due to the total realignment length of 1,800-feet and would result in longer construction times.

By preserving the existing masonry arch Strawberry Creek Bridge, Caltrans would also assume the liability and future maintenance issues due to the potential for structure deterioration and/or damage caused by major storm events.

For the above mentioned reasons, it is not feasible or prudent to construct a new bridge adjacent to or away from the existing bridge due to the significant environmental, right of way, total construction capital costs, and extended length of construction due to design issues associated with this alternative.

This page intentionally left blank.

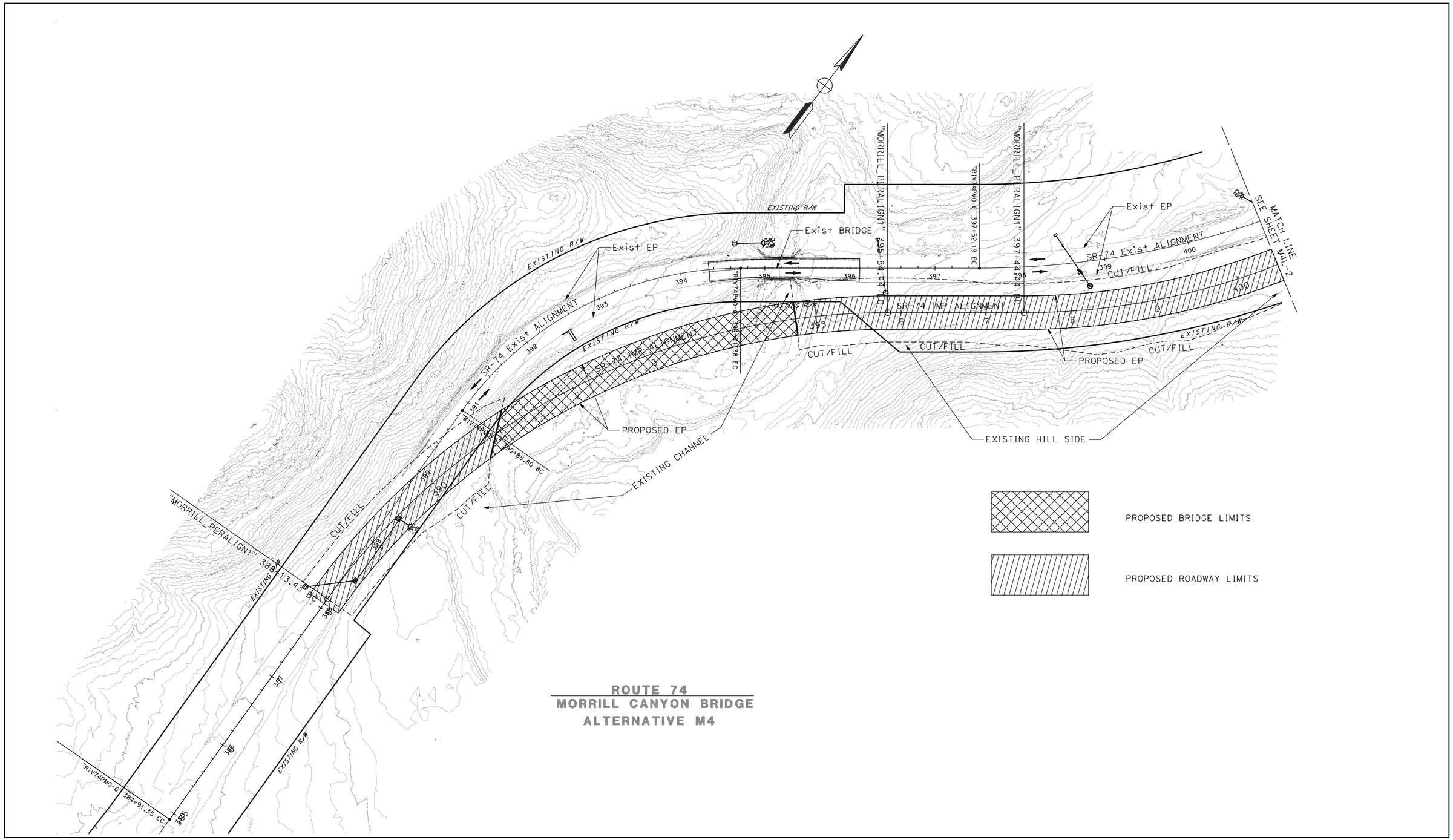


Figure 4, Sheet 1 of 2
Morrill Canyon Bridge Avoidance Alternative
SR-74 Bridge Replacement Project

This page intentionally left blank.

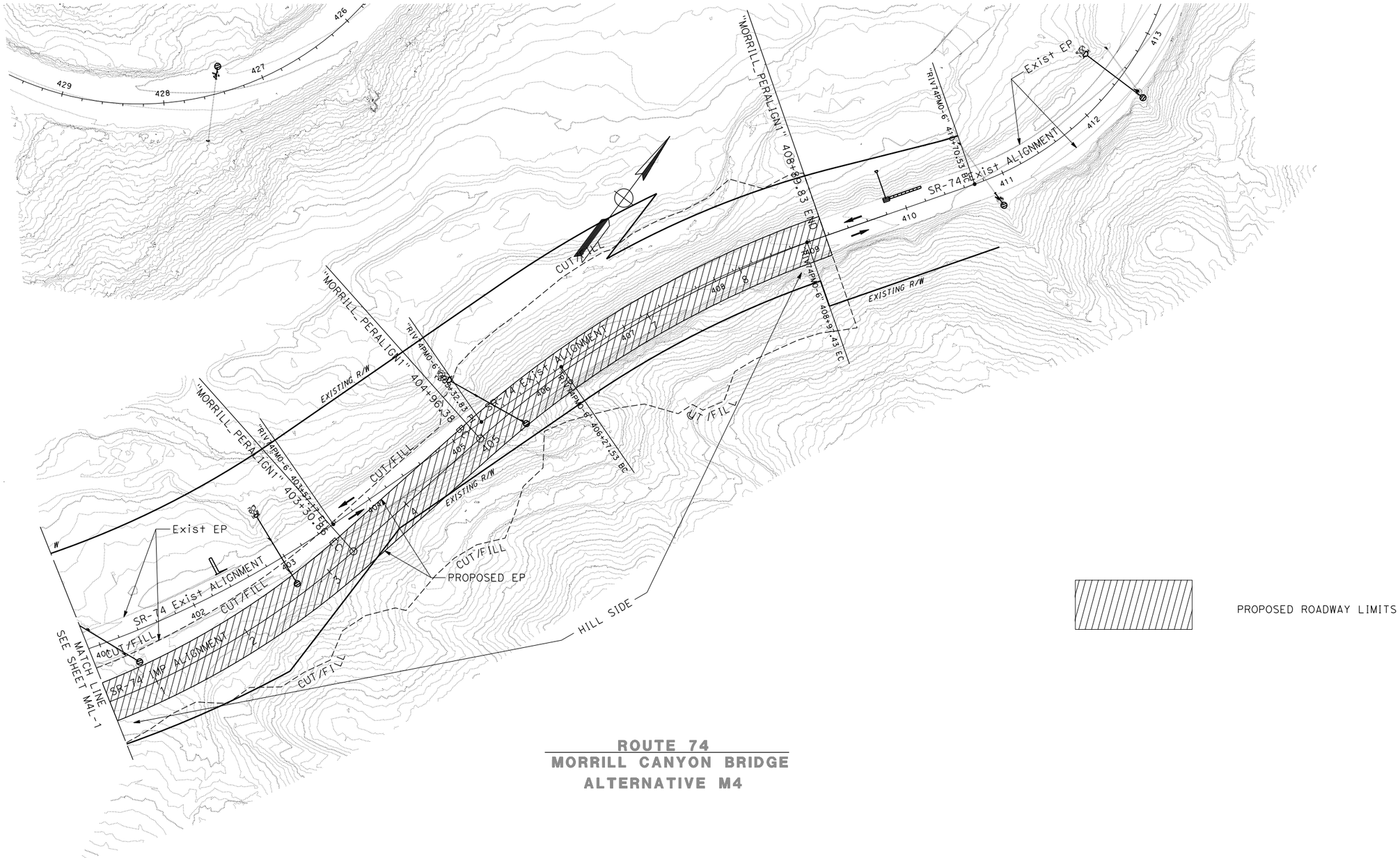


Figure 4, Sheet 2 of 2
Morrill Canyon Bridge Avoidance Alternative
SR-74 Bridge Replacement Project

This page intentionally left blank.

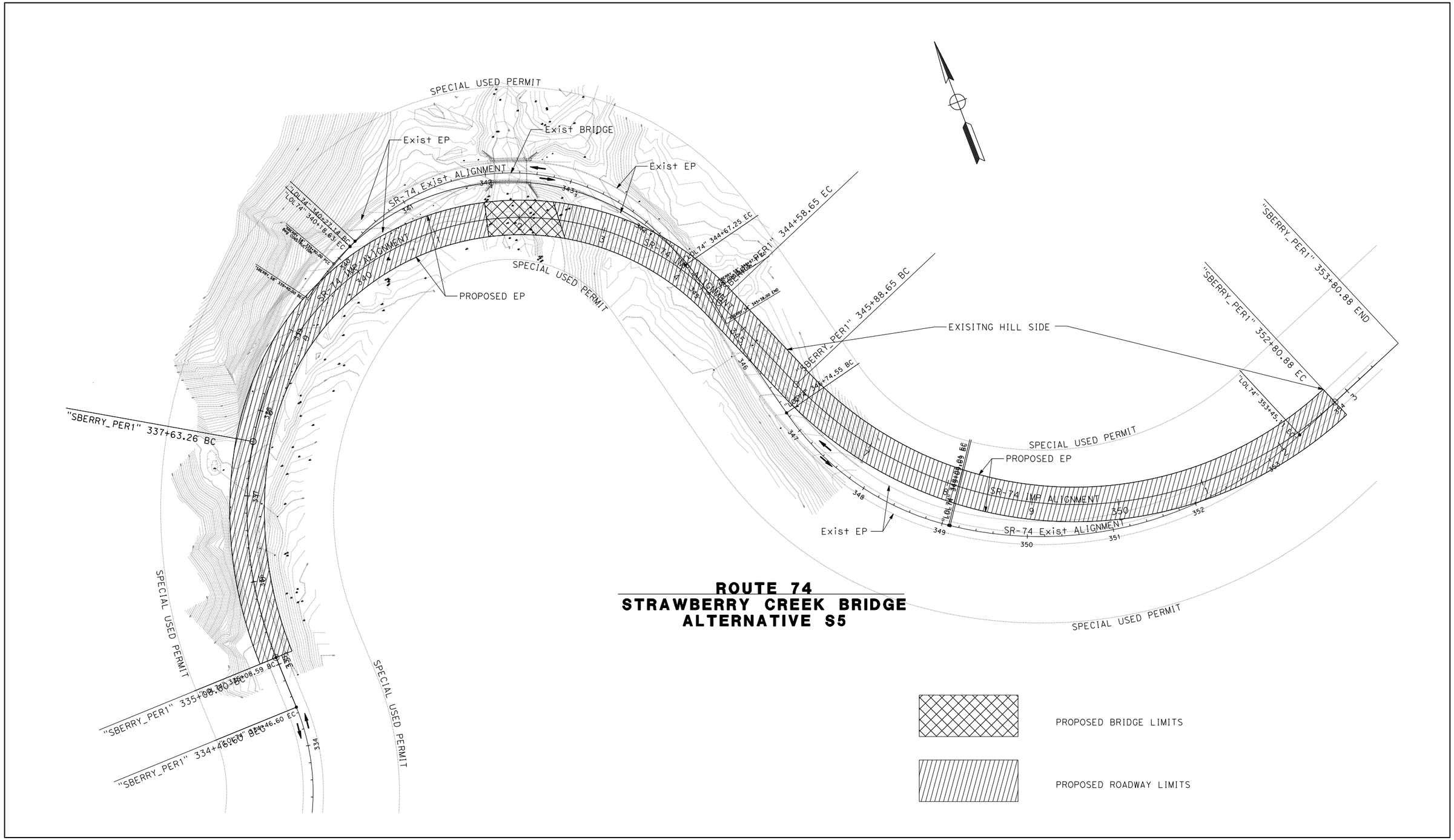


Figure 5
Strawberry Creek Bridge Avoidance Alternative
SR-74 Bridge Replacement Project

This page intentionally left blank.

2.5.4 Measures to Minimize Harm to the Section 4(f) Property

As part of the Section 106 process, a Memorandum of Agreement (MOA) will be approved and executed, between the State Historic Preservation Officer (SHPO) and the Department to address the finding of Adverse Effect for the two bridges. The MOA provides stipulations that the replacement bridges be designed and developed in consultation with the SHPO to minimize the visual impact on the setting. The MOA will be finalized after public review of the Environmental Assessment. This MOA also requires concurrence of the Department local office (Caltrans District 8).

The mitigation measures identified in the Memorandum of Agreement will be identified below, pursuant to Section 106 PA Stipulation XI, 36 CFR 800.6(a) and 800.6(b)(1), which will also be submitted to SHPO during public review of the Environmental Assessment and Programmatic Section 4(f) Evaluation.

Additionally, the project proposes other measures to ensure that the proposed Morrill Canyon Bridge and Strawberry Creek Bridge is consistent in architecture, scale, and size to the existing bridge and surroundings, to the extent feasible.

The following designs are standard requirements which are required by Caltrans for all projects:

- **Standard CR-1:** If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- **Standard CR-2:** In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

2.5.5 Coordination

Consultation with the SHPO and other cultural resources stakeholders has been initiated. Caltrans, as assigned by FHWA, has obtained SHPO concurrence with the determination of eligibility and the finding of effect for this resource.

The following coordination has occurred to address cultural resources pursuant to Section 106 of the National Historic Preservation Act:

- January 6, 2020—The APE for Cultural Resources was established in consultation with Shannon Clarendon, Caltrans Principal Investigator-Prehistoric Archaeology and Prakash Gowda, Caltrans Project Manager.
- April 17, 2020—A HPSR and Finding of Effect (FOE) was prepared and submitted to SHPO.
- June 8, 2020—SHPO concurrence was received on the HPSR and FOE.
- December 2020 – Draft MOA developed and submitted to CSO/SHPO for review and comment.

Chapter 3 Letters and Other Correspondence

Copies of letters and correspondence related to the coordination efforts done for the Programmatic Section 4(f) Evaluation are attached and included on the following pages.

This page was intentionally left blank.

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS
P.O. BOX 942874, MS 27
SACRAMENTO, CA 94273-0001
PHONE (916) 654-3567
FAX (916) 653-7757
TTY (916) 653-4086
www.dot.ca.gov

Making Conservation a California Way of Life

April 17, 2020

Julianne Polanco
State Historic Preservation Officer
1725 23rd Street, Suite 100
Sacramento, CA 95816

RE: Finding of Adverse Effect for Route 74 Bridge Upgrade Project in Riverside County

Dear Ms. Polanco:

The California Department of Transportation is initiating consultation with the SHPO regarding the proposed Route 74 Bridge Upgrade Project (EA: 1G470) in Riverside County. This consultation is undertaken in accordance with procedures outlined in the January 1, 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (Section 106 PA). Caltrans is currently complying with PRC 5024 pursuant to Stipulation III of the *Memorandum of Understanding between the California Department of Transportation and the California State Historic Preservation Officer regarding compliance with Public Resource Code 5024 and Governor's Executive Order W-26-92* (PRC 5024 MOU).

The proposed project involves the replacement of bridge rails (through removal and replacement of bridge railings, extensive bridge modification, and/or full bridge replacement) on two structures located on Route 74; one on the Ortega Highway portion of the road (PM 3.08), and a second on the Pines-to-Palms Highway section of the road (PM 53.45) in Riverside County. Both structures are masonry arch bridges with solid masonry parapet railings.

Enclosed please find a Historic Properties Survey Report (HPSR) and a Finding of Effect (FOE) Report for the project. Caltrans has identified three Historic Properties in the APE; the Morrill Canyon Bridge at PM 3.08 (Category 2), the Strawberry Creek Bridge at PM 53.45 (Category 2), and the Pines-to-Palms Highway, all of which have been previously determined eligible for the NRHP. The FOE proposes that a Finding of Adverse Effect is appropriate for the Undertaking. We are consulting with you at this time in accordance with Section 106 PA Stipulation X.C(1), which requires consultation with the SHPO regarding findings of adverse effect.

Pursuant to Stipulation X.A of the PA, Caltrans has applied the Criteria of Adverse Effect set forth at 36 CFR 800.5(a)(1) and finds that the undertaking would have an adverse effect on historic properties, as detailed in Sections V and VI of the FOE. Therefore, Caltrans has

This page was intentionally left blank.

determined that **the undertaking as a whole will have an Adverse Effect** and is seeking SHPO concurrence with these findings pursuant to Section 106 PA Stipulation XI.C and 36 CFR 800.5. Caltrans will continue consultation regarding resolution of adverse effect. We look forward to receiving your written response within 30 days of your receipt of this transmittal in accordance with Stipulation X.B.(1) of the Section 106 PA.

If you have any questions, please contact me or Caltrans District 8 PQS Historian Andrew Walters (phone: 909-388-2647; email: Andrew_walters@dot.ca.gov). Thank you for your assistance with this undertaking.

Sincerely,

David Price
Section 106 Coordination Branch Chief
Cultural Studies Office

Enclosure: Finding of Adverse Effect with attachments for the Route 74 Bridge Upgrade Project in Riverside County.

c. Andrew Walters, Branch Chief Environmental Support/Cultural Studies, Caltrans District 8
   Jill Hupp, 5024 Coordinator, Caltrans Cultural Studies Office

This page was intentionally left blank.

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

June 8, 2020

VIA EMAIL

In reply refer to: FHWA_2020_0417_002
CATRA_2020_0417_001

Mr. David Price, Section 106 Coordinator
Cultural Studies Office
Caltrans Division of Environmental Analysis
1120 N Street, PO Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Finding of Adverse Effect for the Proposed Route 74 Bridge Upgrade Project, Riverside County, CA

Dear Mr. Price:

Caltrans is initiating consultation about the subject undertaking in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA). Caltrans is also consulting in accordance with the Public Resources Code 5024 and pursuant to the *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code 5024 and Governor's Executive Order W-26-92* (5024 MOU). As part of your documentation, Caltrans submitted a Historic Properties Survey Report (HPSR), an Archaeological Survey Report, and a Finding of Effect (FOE) for the proposed project.

Caltrans proposes to replace bridge rails (through removal and replacement of bridge railings, extensive bridge modification, and/or full bridge replacement) on two structures located on Route 74; one on the Ortega Highway portion of the road (PM 3.08), and a second on the Pines-to-Palms Highway section of the road (PM 53.45) in Riverside County. Both structures are masonry arch bridges with solid masonry parapet railings.

This page intentionally left blank.

Caltrans has identified three Historic Properties in the APE; the Morrill Canyon Bridge at PM 3.08 (Category 2), the Strawberry Creek Bridge at PM 53.45 (Category 2), and the Pines-to-Palms Highway, all of which have been previously determined eligible for the NRHP.

Caltrans has applied the Criteria of Adverse Effect and found pursuant to Stipulation XI.C. of the PA, the project will have an adverse effect to the above historic properties.

Based on review of the submitted documentation, I have no objection to Caltrans' finding of adverse effect for this project.

If you have any questions, please contact Natalie Lindquist at (916) 445-7014 with e-mail at natalie.lindquist@parks.ca.gov Jeanette Schulz at (916) 445-7031 with e-mail at jeanette.schulz@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

This page intentionally left blank.

Chapter 4 Other Park, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or adjacent to the project area that do not trigger Section 4(f) protection either because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

Archaeological and historic sites within the Section 106 APE and all public and private parks, recreational facilities, and wildlife refuges within approximately 0.5 mile have been analyzed to determine whether they are protected Section 4(f) resources and whether the project would "use" the properties. There are no wildlife refuges with the 0.5 mile buffer.

4.1 Trails

The San Juan Loop Trailhead and Bear Canyon Trailhead are located south of the Morrill Canyon Bridge along SR-74 and as such, were subject to Section 4(f) considerations. Both trailheads are for non-motorized use, with the San Juan Loop Trailhead offering hiking, walking, and biking trails with toilet facilities. The Bear Canyon Trailhead offers hiking, walking, and biking trails. Currently, there are no bike or pedestrian paths along Morrill Canyon Bridge and the San Juan Loop trailhead and Bear Canyon Trailhead do not connect to the Morrill Canyon Bridge. A "use" of the proposed Section 4(f) resources does not occur, access to the trailheads would not be affected, and, as such, provisions of Section 4(f) are not triggered. Refer to Section 2.1.1 of the ISEA for further details on parks and recreational facilities.

4.2 Parks

The Morrill Canyon Bridge and Strawberry Creek Bridge is located within the U.S. Forest Service (USFS) Cleveland National Forest and San Bernardino National Forest. A Special Use Permit from the USFS at Strawberry Creek Bridge will be required. The project will not require or result in temporary access impacts to the Cleveland National Forest or San Bernardino National Forest. A "use" of these parks would not occur as a result of the project and provisions

of Section 4(f) are not triggered. Refer to Section 2.1.1 of the ISEA for further details on parks and recreational facilities.

Chapter 5 Additional References

23 CFR 774: Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(F))

23 CFR 771.135: FHWA Environmental Impact and Related Procedures; Section 4(f) Technical Advisory T6640.8A, Guidance for Preparing and Processing

Programmatic Section 4(f) Evaluation Annotated Outline, Caltrans. Located at: https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/forms-templates

Section 4(f) Policy Paper, March 1, 2005

FHWA Guidance on Section 4(f) De Minimis

This page was intentionally left blank.

Appendix B Title VI Policy Statement

This page intentionally left blank.

Appendix B **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.

August 2020

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.*"

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

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/civil-rights/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 Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at <Title.VI@dot.ca.gov>.

Original signed by
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 C Environmental Commitments Record

This page intentionally left blank.

Appendix C Environmental Commitments Record (ECR)

DIST-CO-RTE: 08-RIV-74 **PM/PM:** PM 2.9/3.2 & 53.3/53.5 **EA/Project ID.:** EA 08-1G470 / PN 0816000001
Project Description: Replace Morrill Canyon Bridge (Bridge No. 56-0169, PM 3.08) and Strawberry Creek Bridge (Bridge No. 56-0180, PM 53.5) on SR-74 in Riverside County, California.
Date (Last modification): 12/22/20
Environmental Planner: Kourtney Graves **Phone No.:** (909) 383-6324
Construction Liaison: TBD **Phone No.:**
Resident Engineer: TBD **Phone No.:**

PERMITS

Permit	Agency	Application Submitted	Permit Received	Permit Expiration	Permit Requirement Completed by:	Permit Requirement Completed on:	Comments
Section 1602 Streambed Alteration Agreement	California Department of Fish & Wildlife	Enter date	Enter date	Enter date	Enter Name	Enter date	Enter comments
Porter-Cologne Act and Clean Water Act (CWA) Section 401 Water Quality Certification	Regional Water Quality Control Board	Enter date	Enter date	Enter date	Enter Name	Enter date	Enter comments
CWA Section 404 Nationwide Permit	US Army Corps of Engineers	Enter date	Enter date	Enter date	Enter Name	Enter date	Enter comments
National Pollutant Discharge Elimination System (NPDES) Permit	State Water Resources Control Board						

ENVIRONMENTAL COMMITMENTS

PA&ED

Category	Task and Brief Description	Source	Included in PS&E package	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Completed on	Remarks	Mitigation for significant impacts under CEQA?
Other	**TMP-1:** A Transportation Management Plan (TMP) would be prepared and will be implemented during construction of the project. Public information and awareness campaigns, motorist information strategies, and incident management strategies in the TMP would inform the public of the proposed project.	Page 2-10, Environmental Document	Yes	Caltrans Maintenance/ Design/Resident Engineer/ Contractor	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Timberlands	**TMB-1:** In accordance with U.S. Forest Service guidelines, trees that are cut will remain on site and be used as mulch within the project limits.	Page 2-6, Environmental Document	Yes	Caltrans Maintenance/ Design/Resident Engineer/ Contractor						
Timberlands	**TMB-2:** For every tree cut, a 3:1 tree replacement ratio is required by the Caltrans District Landscape Architect. Hydroseeding and fiber roll methods will also be implemented as part of the erosion control measures.	Page 2-6, Environmental Document	Yes	Caltrans Maintenance/ Design/Resident Engineer/ Contractor						
Visual Resources	**AES-1:** Minimize Fugitive Light from Portable Sources Used for Construction. The construction contractor will minimize project-related light and glare to the maximum extent feasible, given safety considerations. Color-corrected halide lights will be used. Portable lights will be operated at the lowest allowable wattage and height. For construction occurring on the ground, portable lights will be raised to a height no greater than 20 feet. All lights will be screened and	Page 2-12, Environmental Document	Yes	Caltrans Maintenance/ Design/Resident Engineer/ Contractor	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No

Category	Task and Brief Description	Source	Included in PS&E package	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Completed on	Remarks	Mitigation for significant impacts under CEQA?
	directed downward, toward work activities, and away from the night sky and nearby residents to the maximum extent possible. The number of nighttime lights used will be minimized to the greatest extent possible.									
Cultural Resources	**CR-1:** If buried cultural resources are encountered during project activities, it is Caltrans' policy that all work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find.	Page 2-17, Environmental Document, Archaeological Survey Report	Yes SSP 14-2.03	Contractor/ Caltrans Cultural Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Cultural Resources	**CR-2:** In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendant (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909)383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.	Page 2-17 Environmental Document, Archaeological Survey Report	Yes SSP 14-2.03	Contractor/ Caltrans Cultural Studies						
Water Quality	**WQ-1:** The project will comply with Caltrans Standard Specifications for construction site Best Management Practices (BMPs), including complying with U.S. Environmental Protection Agency's (U.S. EPA's) Construction General Permit, discharges of stormwater from the job site, compliance with permits issued by Regional Water Quality Control Board (RWQCB) for National Pollutant Discharge Elimination System (NPDES) Permit, and permits governing stormwater and non-stormwater discharges resulting from construction activities at the job site.	Page 2-24 Environmental Document	Yes 14-2.03	Contractor/ Caltrans Environmental Engineering	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Water Quality	**WQ-2:** The project will comply with Caltrans Standard Specifications related to complying with the provisions of the current NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, and any subsequent permit, as they relate to construction activities for the project. This will include submission of the permit registration documents, including a Notice of Intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water Resources Control Board (SWRCB) at least 14 days prior to the start of construction activity. The SWPPP will (1) meet the requirements of the Construction General Permit and identify potential pollutant sources associated with construction activities; (2) identify non-stormwater discharges; and (3) identify, implement, and maintain BMPs to reduce or eliminate pollutants associated with the construction site. The BMPs identified in the SWPPP will be implemented during the project construction. A Notice of Termination will be submitted to SWRCB upon completion of construction and the stabilization of the site.	Page 2-25 Environmental Document	Yes 13-3.01D(2)	Contractor/ Caltrans Environmental Engineering	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Water Quality	**WQ-3:** The project will comply with Caltrans Standard Specifications related to complying with the provisions of the current General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality as they relate to discharge of non-stormwater dewatering wastes for the project.	Page 2-25 Environmental Document	Yes 13-3.01D(2)	Contractor/ Caltrans Environmental Engineering	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Water Quality	**WQ-4:** The project will comply with Caltrans Standard Specifications related to complying with the provisions of the Section 401 Water Quality Certification, a Section 404 permit from the U.S. Army Corps of Engineers (USACE), and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife will be obtained prior to impacts within identified jurisdictional areas.	Page 2-25 Environmental Document	Yes 13-1.01D(2)	Contractor/ Caltrans Environmental Engineering	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Water Quality	**WQ-5:** Specifications related to complying with the provisions of the Department's current Statewide NPDES Permit, effective July 1, 2013 (known as the Department's MS4 permit). Project-specific BMPs and any applicable	Page 2-25 Environmental Document	Yes 13-1.01D(2)	Contractor/ Caltrans	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No

Category	Task and Brief Description	Source	Included in PS&E package	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Completed on	Remarks	Mitigation for significant impacts under CEQA?
	hydromodification features will be incorporated into final design. The BMPs will be properly designed and maintained to target pollutants of concern and reduce runoff from the project site.			Environmental Engineering						
Geology	**GEO-1:** The project will implement Caltrans Standard Specifications Sections 13-05 and 21 related to erosion control during construction.	Page 2-29 Environmental Document	Yes Sections 13-05 and 21	Contractor/ Caltrans Environmental Engineering	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Geology	**GEO-2:** Earthwork will be performed in accordance with the Department's Standard Specifications, Section 19, which require standardized measures related to compacted fill, overexcavation, recompaction, and retaining walls, among other requirements.	Page 2-29 Environmental Document	Yes Section 19	Contractor/ Caltrans Environmental Engineering	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Geology	**GEO-3**: Construction will be conducted in accordance with Division III, "Earthwork and Landscape" Section 21-1 through 21-3 of the Department's Standard Specifications, requiring erosion protection and drainage control.	Page 2-29 Environmental Document	Yes Section 21-1 through 21-3	Contractor/ Caltrans Environmental Engineering During any ground disturbance, demolition or construction activities.	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Hazardous Waste	**HAZ-1:** Section 7-1.02K(6)(j)(ii) - Preparation of a lead compliance plan if applicable.	Page 2-32 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Hazardous Waste	**HAZ-2:** Section 7-1.02K(6)(j)(iii) – Applies if earth material will be disturbed; and work could result in lead exposure; earth material is not a hazardous waste and does not exceed 320 mg/kg lead; earth material does not require disposal in a permitted landfill.	Page 2-32 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-3:** Section 14-11.08 – Applies if material containing ADL at regulated concentrations as defined in the ADL Agreement with DTSC is present at the job site and will be excavated, stockpiled, transported, placed within project limits, or disposed of in a landfill.	Page 2-32 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-4:** Section 14-11.09 – Applies if the project includes minimal disturbance of areas with regulated material containing ADL.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-5:** Section 14-11.12, Specifications for removing yellow traffic stripe and pavement markings with hazardous waste residue.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-6:** Section 14-11.13 – Applies if work will disturb the existing paint system on a bridge.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-7:** Section 14-11.16 – Applies for the removal and management of asbestos-containing construction materials in bridges.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-8:** Section 36-4 - Specifications related to residue containing lead from paint and thermoplastic.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					

Category	Task and Brief Description	Source	Included in PS&E package	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Completed on	Remarks	Mitigation for significant impacts under CEQA?
Hazardous Waste	**HAZ-9:** Section 49-1.03 - Applies if expected difficult pile installation and the management of hazardous waste, contaminated materials, and naturally occurring asbestos, including serpentine rock. This specification applies for all types of pile installation.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-10:** Section 14-9.02 – Applies for the demolition or rehabilitation of a bridge or building requiring notification to the U.S. EPA, California Air Resources Board, APCD, or AQMD to comply with air quality regulations.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Hazardous Waste	**HAZ-11:** Section 14-11.14 – Applies if the project will generate treated wood waste.	Page 2-33 Environmental Document, ISA	Yes	Contractor/ Caltrans Environmental Engineering	Enter action					
Biology	**BIO-1:** Equipment Staging, Storing, and Borrow Sites: Equipment, vehicles, and materials staged and stored in Caltrans right of way must be sited in previously paved or previously disturbed areas only and must avoid native vegetation. Approval of additional staging, storing or borrow sites must require the Caltrans Biologist to analyze project impacts and provide authorization.	Page 2-39 Environmental Document, Natural Environment Study	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	Yes
Biology	**BIO-2:** Artificial Lighting: Artificial lighting for the project site must be directed specifically at the work site only.	Page 2-63 Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-3:** Pre-Construction Surveys: Pre-construction arroyo toad, Coast Range newt, and mountain yellow-legged frog surveys must be conducted by an authorized Contractor-supplied biologist immediately prior to the start of ground-disturbing activities, including the installation of arroyo toad, Coast Range newt, and mountain yellow-legged frog exclusion fencing, within the project impact area. If an arroyo toad, Coast Range newt, or mountain yellow-legged frog individual is located, the Resident Engineer and a Caltrans biologist will be contacted, and avoidance and minimization measures must be required.	Page 2-63 Environmental Document NES	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-4:** Work Avoidance: Avoid blasting during the arroyo toad breeding season (March 1-June 30) within the Morrill Canyon Bridge project area.	Page 2-63 Environmental Document NES	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-5:** Species Avoidance: If during construction activities arroyo toad, Coast Range newt, and mountain yelloe-legged frog is discovered within the project site, the contractor-supplied biologist must have the authority to halt all construction activities and direct movements of equipment and personnel to avoid injury to mortality to arroyo toad, Coast Range newt, and mountain yellow-legged frog. Arroyo toad, Coast Range newt, and mountain yellow-legged frog cannot be handled or harassed and must leave the job site under their own accord.	Page 2-63 Environmental Document NES	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-6:** Worker Environmental Awareness Program (WEAP): A qualified contractor-supplied biologist must present a biological resource information program/WEAP prior to ground-disturbing activities to all personnel that must be present within the project limits for longer than 30 minutes at any given time	Page 2-39 Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-7:** Biological Monitor: The qualified contractor-supplied biologist must monitor project-related activities to ensure that measures (including the construction guidelines in WRCMSHCP Volume 1 Section 7.5.3 and the Standard Best Management Practices in WRCMSHCP Appendix C) are being implemented and documented.	Page 2-40 Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-8:** ESA Fencing: To prevent entry by arroyo toad, Coast Range newt, and mountain yellow-legged frog into the work site, temporary exclusion fencing must be installed outlining the perimeter of any construction staging, storage, or batch plant areas.	Page 2-63 Environmental Document, NES-MI	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No

Category	Task and Brief Description	Source	Included in PS&E package	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Completed on	Remarks	Mitigation for significant impacts under CEQA?
Biology	**BIO-9:** ESA Fence Monitoring: Fence and enclosure (onsite cleared areas) inspections must occur daily throughout the duration of the project prior to commencing construction activities and after construction activities are completed. If during construction, the fence fails, work must stop until it is repaired and the Contractor-supplied biologist inspects (and clears) the site.	Page 2-63 Environmental Document, NES-MI	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-10:** ESA Fence Removal: All ESA fencing will be removed as a last order of work. During removal, a biological monitor will be present.	Page 2-63 Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies	Enter action	Enter date	Enter Name	Enter date	Enter remarks	No
Biology	**BIO-11:** Animal Entrapment: To prevent inadvertent entrapment of arroyo toad, Coast Range newt, and mountain yellow-legged frog during project activities, all excavated steep-walled holes or trenches more than one foot must be covered at the close of each working day by plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Trapped animals must be released by the Contractor-supplied biologist.	Page 2-64, Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies						
Biology	**BIO-12:** Handling: The qualified biologist must avoid use of insecticides, sunscreens, or any other lotions, creams or products on their skin, clothing, footwear, or field equipment immediately prior to and during handling of arroyo toad, Coast Range newt, and mountain yellow-legged frog.	Page 2-64, Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies						
Biology	**BIO-13** Preconstruction Nesting Bird Survey: If project-related activities cannot avoid the nesting season, generally regarded as February 1 through September 30, then pre-construction nesting bird surveys must be conducted 3 days prior to construction by a Contractor-supplied biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer must be established.	Page 2-63, Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies						
Biology	**BIO-14** Rare insect host plant pre-construction clearance survey, flagging, and fencing: No more than one week prior to project-related activities, a qualified biologist must perform a pre-construction survey for rare insect host plants. Should any rare insect host plants be found, the Resident Engineer and Caltrans Biologist must be contacted, and host plants must be flagged by the biologist for visual identification to construction personnel for work avoidance. Should multiple plants in a single location be found, the groupings must be fenced with environmentally sensitive area temporary fencing.	Page 2-65, Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies						
Biology	**BIO-15** Flagging and Fencing: Within one week prior to construction a pre-construction survey must be conducted for special status plant species and must be flagged by the Contractor-supplied biologist for visual identification to construction personnel for work avoidance. Portions of the BSA that feature multiple plants in a single location must be fenced with environmentally sensitive area temporary fencing.	Page 2-40, Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies						
Biology	**BIO-16** Rare Plant Translocation: If a special status plant species are found within the work area and cannot be fenced but can survive transplantation, the Contractor-supplied biologist must contact the Caltrans Biologist to determine the time and suitable translocation area for the plant species to be moved. Additional requirements and actions must be determined at the time in which such situation occurs.	Page 2-52, Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies						
Biology	**BIO-17** Tree Removal: All mature trees to be removed as part of the project must be more closely evaluated by a qualified bat biologist for their potential to support roosting bats. Trees that are identified as suitable bat roost sites must be removed using a two-step process that occurs over a 2-day period. On Day 1, branches and limbs that do not contain crevices or cavities must be removed using hand tools or chainsaws. On Day 2, the remainder of the tree	Page 2-64, Environmental Document, NES	Yes	Contractor/ Caltrans Biological Studies						

Category	Task and Brief Description	Source	Included in PS&E package	Responsible Branch/Staff	Action to Comply	Due Date	Task Completed by	Task Completed on	Remarks	Mitigation for significant impacts under CEQA?
	may be removed. Trimming or removal of any mature trees (including untrimmed palm trees) and snags during the maternity season (April 1-August 31) must be avoided to prevent "take" of nonvolant (flightless) young. Tree removal should be performed between September 1 and October 31 to the greatest extent feasible to avoid direct impacts to bats roosting in foliage, crevices, and cavities of trees. This time period is after young are volant (flying), but before expected onset of torpor (winter inactivity). This work may also be conducted between February 15 and march 31, following winter torpor and prior to the start of the maternity season. If removal of mature trees (including trimming of palm fronds or removal of palm trees) during the bat maternity season is necessary for project construction, all mature trees to be removed that have also been identified as containing suitable bat roosting habitat should be surveyed at night prior to removal. Any trees confirmed during those surveys as housing bat maternity colonies must be avoided until the end of maternity season.									

Appendix D Acronyms and Abbreviations

This page intentionally left blank.

Appendix D Acronyms and Abbreviations

Acronym	Definition
°F	degrees Fahrenheit
AADT	Annual Average Daily Traffic
AB	Assembly Bill
AB 32	Assembly Bill 32
AB 52	Assembly Bill 52
ACM	asbestos-containing materials
ADI	Area of Direct Impact
ADL	aerially deposited lead
AF	acre-foot
APE	Area of Potential Effect
ARB	Air Resources Board
ASR	Archaeological Survey Report
bgs	below ground surface
BLM	Bureau of Land Management
BMP	Best Management Practice
BSA	biological study area
BTU	British thermal unit
CAFE	Corporate Average Fuel Economy
CAP	Climate Action Plan
Cal/EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CBC	California Building Code
CCAA	California Clean Air Act
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CHL	California Historical Landmarks
CHMIRS	California Hazardous Material Incident Reporting System
CHP	California Highway Patrol
CIWQS	California Integrated Water Quality System
CMP	corrugated metal pipe
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent

Acronym	Definition
CO-CAT	Coastal and Ocean Working Group of the California Climate Action Team
County	County of Riverside
CPHI	California Points of Historical Interest
CREC	controlled recognized environmental condition
CRHR	California Register of Historical Resources
CTP	California Transportation Plan
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEH	Department of Environmental Health
Department	California Department of Transportation
DO	dissolved oxygen
DP-30	Director's Policy 30
DPP	Design Pollution Prevention
DPR	Department of Pesticide Regulation
DSA	disturbed surface area
DWA	Desert Water Agency
ECHO	Enforcement & Compliance History Information
EIC	Eastern Information Center
EMI	Emissions Inventory Data
EO	Executive Order
EPACT92	Energy Policy Act of 1992
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FINDS	Facility Index System
FIRM	Flood Insurance Rate Map
FMMP	Based on California Department of Conservation's Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
FTIP	Federal Transportation Improvement Program
GHG	greenhouse gas
Guidelines	Section 404(b)(1) Guidelines
H&SC	Health and Safety Code
H_2S	hydrogen sulfide
HCM	Highway Capacity Manual, 6th Edition
HFC	hydrofluorocarbon
HHS	Department of Health and Human Services
HPSR	Historic Property Survey Report
HSWA	Hazardous and Solid Waste Amendments
IPCC	Intergovernmental Panel on Climate Change

Acronym	Definition
LBP	lead-based paint
LCFS	low carbon fuel standard
LEDPA	least environmentally damaging practicable alternative
L_{eq}	equivalent noise level
LOS	level of service
LOTB	log of test boring
LSEV	Low Speed Electric Vehicle
MCE	Maximum Considered Earthquake
MEP	Maximum Extent Practicable
mg/cm^2	milligram per square centimeter
mg/kg	milligram per kilogram
mg/L	milligram per liter
MGS	Midwest Guardrail System
MLD	Most Likely Descendant
$MMTCO_2e$	million metric ton of carbon dioxide equivalent
MOE	measure of effectiveness
MOU	Memorandum of Understanding
mph	mile per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSAT	mobile source air toxic
msl	mean sea level
MTBE	methyl tertiary-butyl ether
MU [DA]	Mixed Use, Development Agreement
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NFIP	National Flood Insurance Program
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service

Acronym	Definition
NRHP	National Register of Historic Places
NSR	Noise Study Report
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	ordinary high water mark
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Act
OSTP	Office of Science and Technology Policy
PA	Programmatic Agreement
Pb	lead
pCi/L	picocuries per liter
PDT	Project Development Team
PeMS	Department Freeway Performance Measurement System
Plan	Multiple Species Habitat Conservation Plan
PM	particulate matter
PM	Post Mile
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
PMP	Paleontological Mitigation Plan
POAQC	project of air quality concern
ppm	part per million
ppt	part per thousand
PRC	California Public Resources Code
PS&E	Plans, Specifications, and Estimate
PSR	Project Study Report
PSR-PDS	Project Study Report – Project Development Study
R	Revised
RAC	Replenishment Assessment Recharge
RAP	Relocation Assistance Program
RARE	Rare, Threatened, or Endangered Species
RCP	reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gas
ROW	right of way
RSA	Resource Study Area
RTIP	Regional Transportation Improvement Program
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
Safeguarding California Plan	Safeguarding California: Reducing Climate Risk
SB	Senate Bill
SB 32	Senate Bill 32
SB 375	Senate Bill 375

Acronym	Definition
SB 391	Senate Bill 391
SB 97	Senate Bill 97
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLR	sea-level rise
SSP	Standard Special Provision
State Parks	California Department of Parks and Recreation
SWMP	Storm Water Management Plan
SWP	State Water Project
SWPPPs	Storm Water Pollution Prevention Plans
SWRCB	State Water Resources Control Board
TCE	temporary construction easement
TCR	Transportation Concept Report
TCWG	Transportation Conformity Working Group
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TMP	Traffic Management Plan
TNM	Traffic Noise Model
TPH-g	total petroleum hydrocarbons gasoline
TSCA	Toxic Substances Control Act
U.S.	United States
U.S. EPA	U.S. Environmental Protection Agency
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGRCP	U.S. Global Change Research Program
UST	underground storage tank
VHD	vehicle-hours delay
VMT	vehicle miles traveled
VOC	volatile organic compound
vplpm	vehicle per lane per mile
WDR	Waste Discharge Requirement
WILD	Wildlife Habitat
WPCP	Water Pollution Control Program
WQOs	water quality objectives

This page was intentionally left blank.

Appendix E References

This page intentionally left blank.

Appendix E **References**

California Department of Transportation. 2017. *2017 Project Initiation Report To Request Programming in the 2018 SHOPP*. May.

_____. 2016. *Preliminary Environmental Analysis Report*. May.

———. 2020a. *Bridge Replacement Project, Natural Environment Study, Riverside County, State Route 74.* November.

———. 2020b. *Historic Property Survey Report.* March.

_____. 2020c. *Initial Site Assessment (ISA) Checklist*. August.

_____. 2020d. *Transportation Air Quality Conformity Findings Checklist*. August.

_____. 2020e. *Location Hydraulic Study Form*. May.

_____. 2020f. *Summary Floodplain Encroachment Report.* May.

_____. 2020g. *Supplemental Historic Property Survey Report.* November.

_____. 2020h. *Updated Initial Site Assessment (ISA) Checklist.* November

_____.2020i. *Questionnaire to Determine Visual Impact Assessment (VIA) Level. September*

County of Riverside. 2015. *County of Riverside General Plan, Riverside Extended Mountain Area Plan.* December.

County of Riverside. 2015. C*ounty of Riverside General Plan, Elsinore Area Plan*. December.

This page intentionally left blank.

Appendix F List of Technical Studies

This page intentionally left blank.

Appendix F List of Technical Studies

The technical studies listed below were used as supporting documentation in the preparation of this Initial Study/Environmental Assessment. All of the technical studies listed were prepared specifically for the proposed SR-74 Bridge Replacement Project.

- *Bridge Replacement Project, Natural Environment Study, Riverside County, State Route 74* (November 2020)
- *Historic Property Survey Report* (March 2020)
- *Supplemental Historic Property Survey Report (November 2020)*
- *Initial Site Assessment (ISA) Checklist* (August 2020) (updated November 2020)
- *Location Hydraulic Study Form* (May 2020)
- *Preliminary Environmental Analysis Report* (May 2016)
- *Project Initiation Report to Request Programming in the 2018 SHOPP* (May 2017)
- *Questionnaire to Determine Visual Impact Assessment (VIA) Level* (September 2020)
- *Summary Floodplain Encroachment Report* (May 2020)
- *Transportation Air Quality Conformity Findings Checklist* (August 2020)

This page was intentionally left blank.