INTERSTATE 10/ROCK SLOPE PROTECTION PROJECT

CHUCKWALLA VALLEY, RIVERSIDE COUNTY, CALIFORNIA
DISTRICT 8-RIV-10 (PM 87.9/90.9)
EA 08-1J470
PN 0818000055

Initial Study with (Proposed) Mitigated Negative Declaration/Environmental Assessment

Prepared by the
State of California, Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

June 2022

General Information about This Document

What's in this document:

The California Department of Transportation (Department, Caltrans), 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.
- An electronic copy (PDF file format) of the IS/EA can be downloaded from the project website as follows: www.i-10rockslopeprotectionreplacement.com.
- Attend the virtual public meeting, scheduled for **July 7, 2022 from 6pm to 7pm**. Details for the virtual public meeting will be provided on the project website prior to the meeting date, and will include a webinar link with instructions, a call-in number, and Spanish translation services.
- We'd like to hear what you think. If you have any comments about the proposed project, please attend the virtual public meeting and/or send your written comments via postal mail to the Department by the deadline.
- Send comments via postal mail to:

  Shawn Oriaz
  Senior Environmental Planner
  California Department of Transportation, District 8
  464 West Fourth Street, Sixth Floor, MS-823
  San Bernardino, CA 92401-1400

- Submit comments via email to: D8.1J470.Comments@dot.ca.gov
- Be sure to send comments by the deadline: **July 25, 2022**.

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, with large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to Terri Kasinga, Chief, Public and Media Affairs, 464 West Fourth Street, Sixth Floor, San Bernardino, CA 92401-1400; call (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.

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SCH # _____
08-RIV-10-PM 87.9/90.9
EA 08-1J470
PN 0818000055

Replace existing rock slope protection for four bridges at Three Star Ditch and Determination Ditch on I-10, Riverside County, California

Initial Study with (Proposed) Mitigated Negative Declaration/ Environmental Assessment

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

THE STATE OF CALIFORNIA
Department of Transportation

6/1/2022
Date of Approval

A W Kurt Heidelberg
Kurt Heidelberg
Deputy District Director
California Department of Transportation
NEPA and CEQA Lead Agency

The following people may be contacted for additional information concerning this project:

Shawn Oriaz
Senior Environmental Planner
California Department of Transportation, District 8
464 West Fourth Street, MS-823
San Bernardino, CA 92401-1400

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SCH # _____

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (the Department, Caltrans) proposes to replace the existing Rock Slope Protection (RSP) for the four bridges at Three Star Ditch and Determination Ditch on Interstate 10 (I-10), westbound and eastbound, in Riverside County, California.

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 aesthetics/visual, agriculture and forest resources, community impacts, coastal zone, energy, environmental justice, farmlands, growth, hydrology and water quality, land use and planning, mineral resources, National Oceanic and Atmospheric Administration (NOAA) Fisheries Service Jurisdiction, paleontology, population and housing, public services, recreation, timberlands, traffic and transportation, tribal or cultural resources, wild and scenic rivers, wildfire.
- In addition, the proposed project would have less-than-significant effects on air quality, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, utilities and service systems.
- With the following mitigation measures incorporated, the proposed project would have less-than-significant effects on biological resources:

WET-1 Proposed project impacts to jurisdictional areas may be mitigated and coordinated with RWQCB, and CDFW during the permitting process. It is anticipated that a minimum 1:1 ratio may be applied to any permanent impacts of jurisdictional waters to be paid in the form of onsite restoration, permittee responsible mitigation, in-lieu fee, mitigation bank credit, land acquisition, or as agreed upon with respective resource agencies.

_____ _____

Kurt Heidelberg — Date
Deputy District Director
District 8 Division of Environmental Planning
California Department of Transportation
CEQA Lead Agency

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Chapter 1 Proposed Project

1.1 NEPA Assignment

California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 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 Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on May 27, 2022, for a term of ten years. In summary, 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 California Department of Transportation (Department, Caltrans), as assigned by the FHWA, is the lead agency under NEPA; it is also the lead agency under the California Environmental Quality Act (CEQA). The project proposes to replace the existing Rock Slope Protection (RSP) for four bridges along Interstate 10 (I-10) from post mile (PM) 87.9 to 90.9 in Riverside County, California, approximately 30 miles east of the City of Indio. The project includes widening the bridge deck overhang, adding 12-inch rumble strips, replacing the existing bridge rails with concrete barrier, and replacing the existing RSP for the four bridges at Three Star Ditch (PM R87.96R/L) and Determination Ditch (PM R90.98R/L) on I-10, westbound and eastbound (refer to Figures 1-1 and 1-2).

1.2.1 Existing Facilities

1.2.1.1 Interstate 10

I-10 is a transcontinental west-east route, beginning in Los Angeles County from the Pacific Coast and traverses across eight states to Florida's Atlantic Coast along nearly 2,500 miles of flat and rolling terrain. Locally, I-10 traverses San Bernardino and Riverside Counties and connects to multiple routes including I-15, I-215, SR-210, SR-38, SR-60, SR-243, SR-111, SR-62, SR-86, SR-177, and US Route 95. I-10 serves as a key corridor for commuters, recreational travelers, and movement of goods. I-10 is part of the California Freeway and Expressway System. It is classified as an Interstate on the National Highway System and as a National Network route for Surface Transportation Assistance Act (STAA) trucks in the Truck Networks on California State Highways. I-10 is not eligible to be designated as a Scenic Highway. Within the project limits, I-10 is a four-lane divided freeway on level terrain.

1.2.2 Project Programming

I-10 has been identified as a freeway with varying enhancement needs. The Southern California Association of Government 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (SCAG RTP/SCS) identifies the I-10 as an investment in the preservation of highway systems, highway improvements, and for improving highway accessibility. The RTP's goal with this project is to improve the efficiency of the existing transportation system and will keep the highway's operations and maintenance to preserve multimodal system in a good state of repair. This project is a candidate for programming in the 2020 State Highway Operation and Protection Program (SHOPP) under the 20.XX.201.111 Bridge Scour Mitigation Program.

1.3 Purpose and Need

1.3.1 Purpose

The purpose of this project is to:

- Improve the safety of the traveling public by restoring the scour protection and upgrading the existing bridge railing at the bridges at Three Star Ditch and Determination Ditch to meet current standards.
- Maintain bridge stability and functionality.

1.3.2 Need

The project is needed to protect the abutments and foundations of the bridges at Three Star Ditch and Determination Ditch. Proper protection from erosion and sediment build up at the bridge abutments and foundations are necessary to maintain the stability and functionality of the bridges.

1.3.3 Roadway Deficiencies

A Bridge Inspection Report was prepared in October 2018 by Caltrans at both Determination Ditch and Three Star Ditch. The inspection indicated that Determination Ditch was constructed in 1967 and consists of a continuous 3-span reinforced concrete (RC) slab with open-end diaphragm abutments with monolithic wingwalls and RC piers, all on spread footings. The channel is trapezoidal shaped with soft, sandy bottom and rock slope protection. The inspection indicated that, at the time of inspection, the RSP at both abutments was inadequate at Determination Ditch, missing some rocks at the banks with voids. The bridge was deemed scour critical. The RSP was not considered adequate and the abutment spread footings were prone to undermining and scouring. Three Star Ditch was also constructed in 1967 and consists of a continuous 3-span RC slab with open-end diaphragm abutments with monolithic wingwalls and RC piers, all on spread footings. The channel is trapezoidal with soft, sandy bottom and rock slope protection. The inspection indicated that, at the time of the inspection, the RSP at both abutments at Three Star Ditch were inadequate, missing some rocks at the banks with voids. The bridge was deemed scour critical. The RSP was not considered adequate and the abutment spread footings were prone to undermining and scouring.

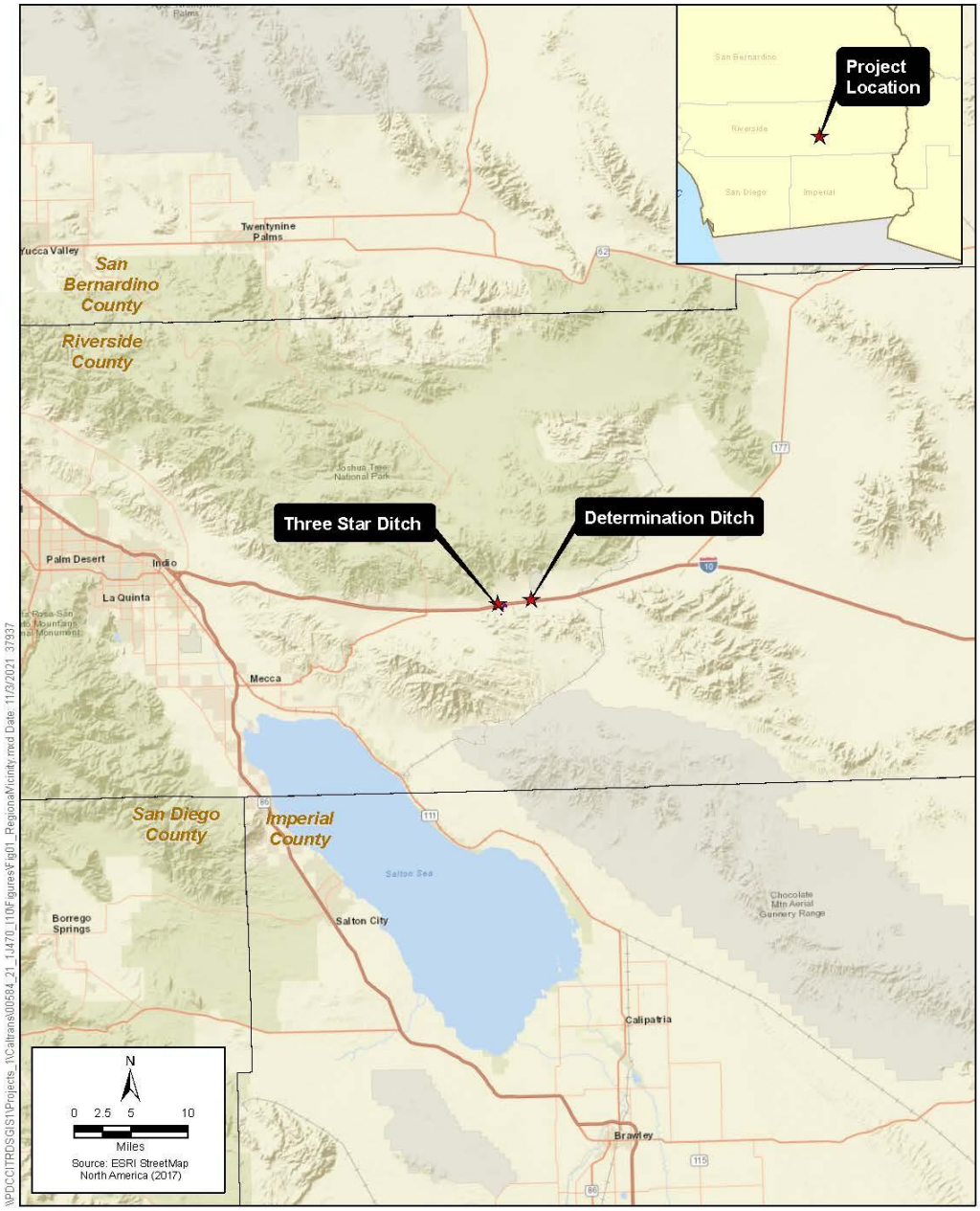

Figure 1-1
Regional Vicinity
I-10 Rock Slope Protection Project

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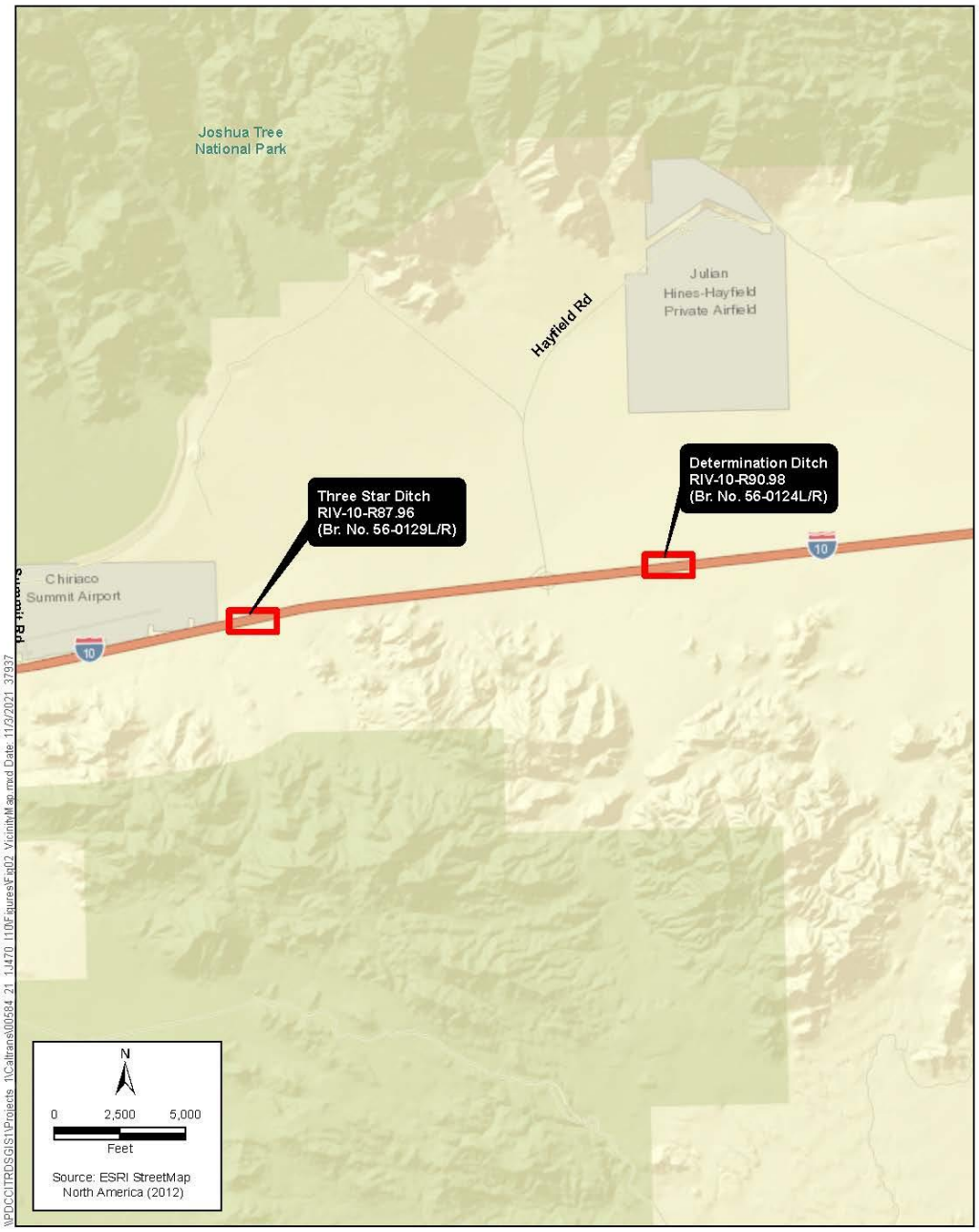

Figure 1-2
Project Location Map
I-10 Rock Slope Protection Project

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The Build Alternative proposes to replace the existing RSP for four bridges along the westbound and eastbound lanes of I-10. The project will restore scour protection at the bridges, Three Star Ditch and Determination Ditch, along I-10 from PM 87.9 to PM 90.9 to meet current standards, and maintain bridge stability and functionality.

1.3.4 Social Demands or Economic Development

I-10 is a transcontinental west-east freeway spanning 196 miles in length and traversing San Bernardino and Riverside Counties and connects to multiple routes including SR-83, I-15, I-215, SR-210, SR-38, SR-60, SR-243, SR-111, SR62, SR-86, and SR-177. I-10 serves as a key corridor for commuters, recreational travelers, and goods movement. The project is located in a rural area along I-10. The Riverside County General Plan, Eastern Coachella Valley Area Plan, Land Use map designates the project area as Conservation Habitat. More specifically, and as indicated in the Natural Environment Study (Minimal Impacts) prepared for the project, the bridges are located within the Coachella Valley Multiple Species Habitat Conservation Plan. Furthermore, there are no local development project that may impact, directly or indirectly, the project area.

1.3.5 Modal Interrelationships and System Linkages

I-10 provides regional access in the project area as a four-lane freeway facility, traversing the state of California in a west-east orientation. I-10 originates in Santa Monica, California and extends eastward to its terminus in Jacksonville, Florida. As an interstate facility, I-10 serves as a major corridor for movement of goods through the project area and areas west and east via the freeway.

The I-10 shoulders, within the project area, are open to bicyclists, but pedestrians are prohibited. The Palo Verde Valley Transit Agency operates one bus route (Bus Route #6 Wellness Express) on I-10 through the project postmiles. The east-west bus route travels from the Palm Springs – Desert Regional Medical Center to the Main Street Park and Ride Facility in Blythe. This bus route only operates on Monday, Wednesday, and Friday with advanced reservation and payment. The nearest bus stop to the project is located at the Chiriaco Summit rest stop. The Chiriaco Summit Airport, owned by Riverside County, is a small publicly-used, one runway airport located between Coachella Valley and Desert Center, adjacent to and north of I-10. The Chiriaco Summit Airport is maintained as a functioning airport for emergency purposes and recreational uses.

Due to the nature of the project, to replace the existing RSP for the four bridges at Three Star Ditch and Determination Ditch on I-10 in Riverside County, the project would not result in any disconnect of system linkages related to multi-modal transportation, bicycle movement, or interfere with aviation access.

1.3.6 Independent Utility and Logical Termini

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.

This IS/EA assesses the proposed project area, which extends along Three Star Ditch and Determination Ditch along I-10 from PM 87.9 to PM 90.9. Temporary dirt access roads and staging equipment areas will be included to give the construction personnel access to perform the necessary work and will be removed at the conclusion of construction. A Temporary Construction Easement (TCE) is anticipated with the Bureau of Land Management (BLM) to provide the temporary dirt construction access road and staging areas at Three Star Ditch. 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 replace the existing RSP for the four bridges along the westbound and eastbound lanes of I-10, 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

The proposed project would replace the existing Rock Slope Protection (RSP) for four bridges at Three Star Ditch and Determination Ditch. The project is located in Riverside County, approximately 30 miles east of the City of Indio, along I-10 at PM R87.96 and PM R90.98. Within the project limits, I-10 is a four lane (two lanes in each direction) highway that runs in an east-west direction. The project is located in a rural setting with mostly undeveloped, natural open space.

1.5 Alternatives

This section describes the proposed action and the project alternatives that were developed to meet the identified purpose and need of the project, while avoiding or minimizing environmental impacts. The alternatives are the Build Alternative (Figures 1-3a and 1-3b) and the No-Build Alternative.

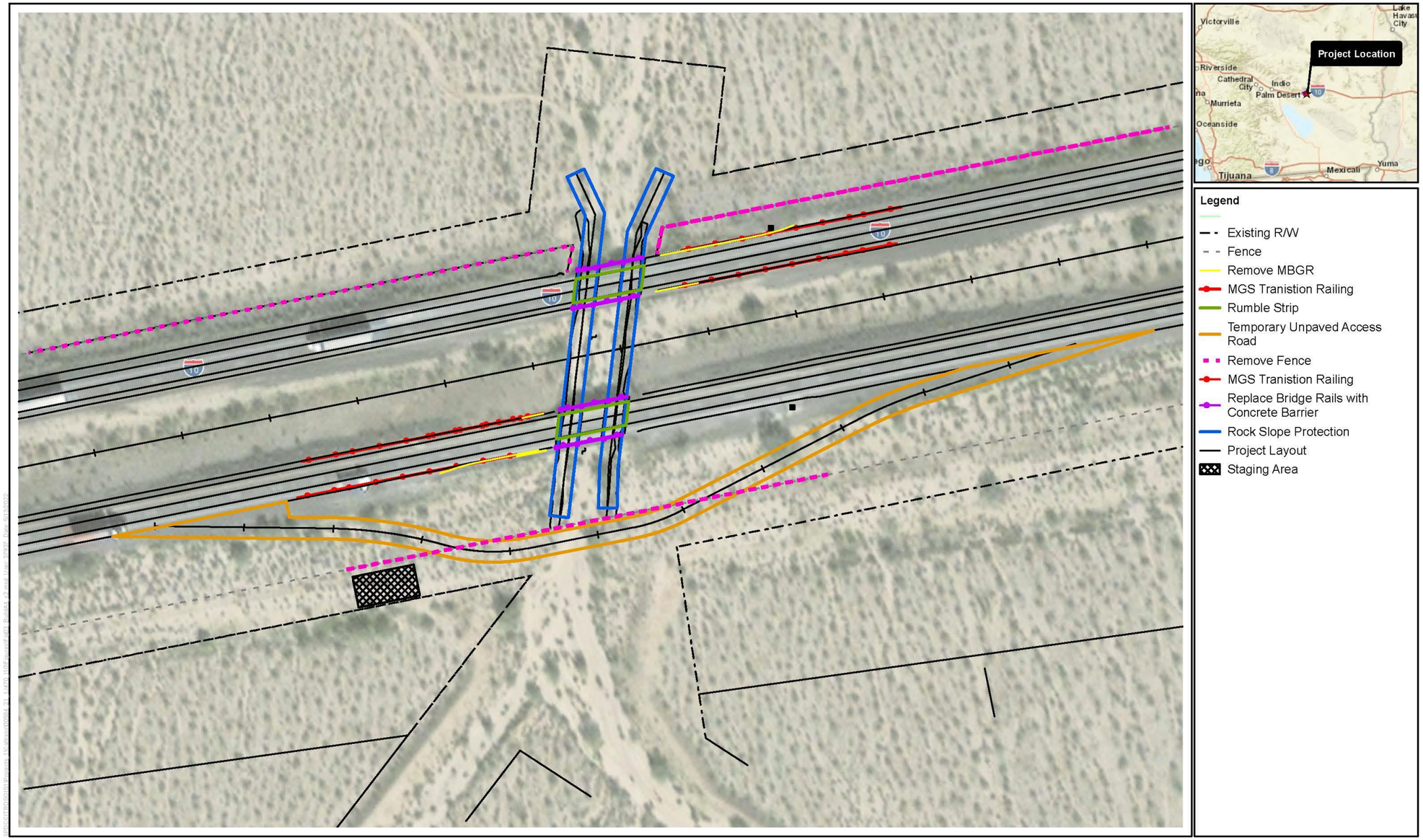

Figure 1-3a
Build Alternative - Three Star Ditch
I-10 Rock Slope Protection Replacement Project

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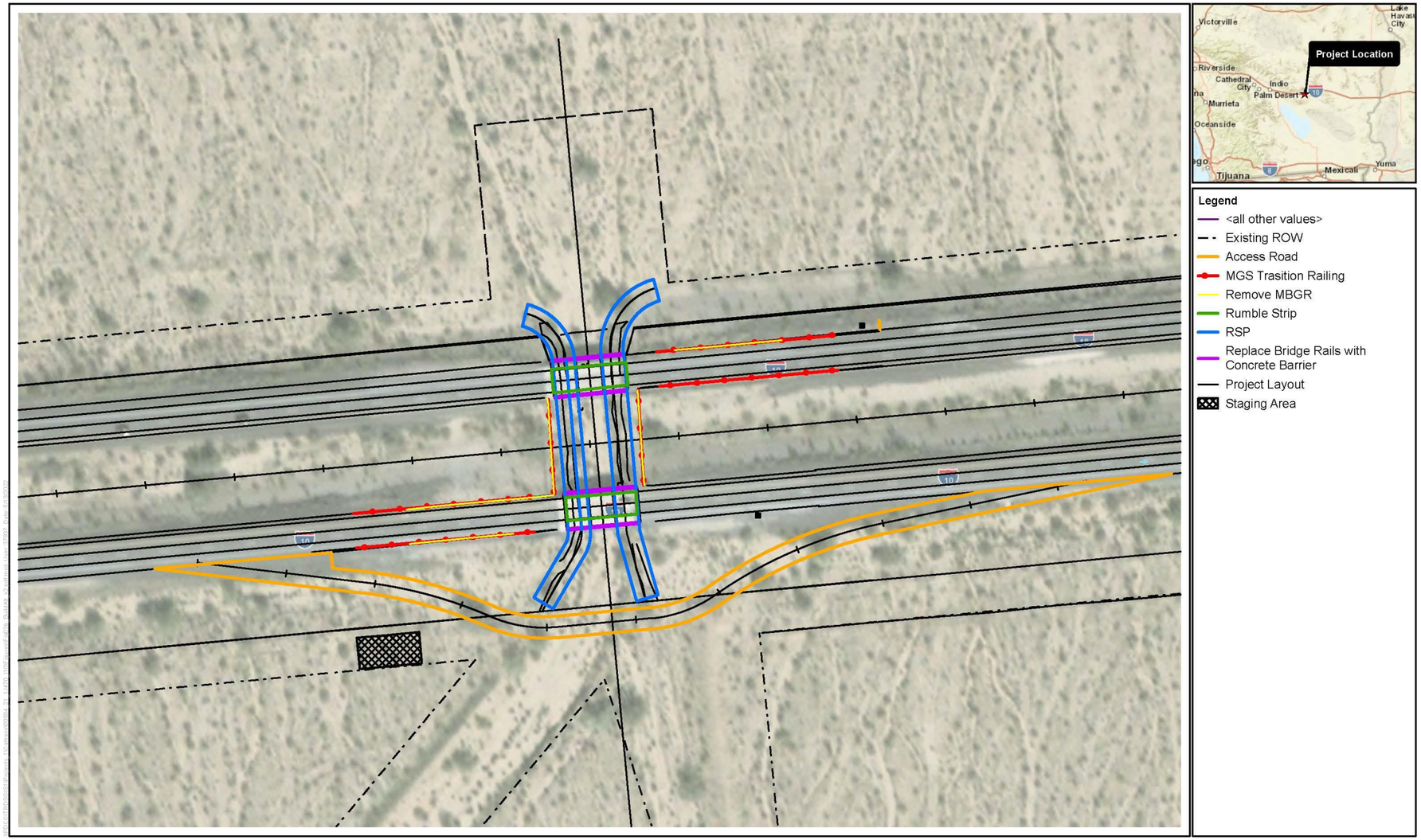

Figure 1-3b
Build Alternative - Determination Ditch
I-10 Rock Slope Protection Replacement Project

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1.5.1 Project Alternatives

1.5.1.1 Build Alternative

The Department proposes to replace the existing RSP for four bridges along the westbound and eastbound lanes of I-10 in Riverside County, California. The project will restore scour protection at the bridges, Three Star Ditch and Determination Ditch, along I-10 from PM 87.9 to PM 90.9 in order to meet the current standards, and maintain bridge stability and functionality. The project will require replacement of the eroded areas of existing RSP with new Class VII (1/2 ton) RSP on Class 8 RSP fabric at abutments and along the embankments between the bridges. The existing guardrail and barbed-wire fence will be removed and replaced with current standard Midwest Guardrail System (MGS) and adding a 12-inch rumble strip to the inside and outside shoulders. It is also proposed to replace the existing bridge rails (Type 9) with Manual for Assessing Safety Hardware (MASH)-compliant concrete barrier (Type 842). The existing bridge deck overhangs will be widened to accommodate the new concrete barrier and still maintain inside and outside standard shoulder widths of 5 feet and 10 feet, respectively. Temporary dirt access roads and staging equipment areas will be provided to give construction personnel access to perform all necessary work and will be removed at the conclusion of construction. A Temporary Construction Easement (TCE) is anticipated with the Bureau of Land Management (BLM) managed land to provide the temporary dirt construction access road and staging areas at Three Star Ditch.

1.5.1.2 No-Build Alternative

The No-Build Alternative would leave the existing facilities in their current condition and no proposed improvements would be made. As a result, no capital costs are associated with this alternative. The existing RSPs at both abutments for Determination Ditch and Three Star Ditch were determined to be inadequate and missing rocks at the banks with voids during inspections. The existing RSPs at both locations were considered insufficient, and abutment spread footings were determined to be prone to undermining and scouring. Furthermore, this alternative would lead to further deterioration of the two bridges, which would lead to emergency repairs and not meet the purpose and need.

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 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 and cultural resources, hazardous waste/materials, water quality, management of traffic during construction, noise, and erosion control.

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.

Due to the nature of the project, which involves replacing RSP at Three Star Ditch and Determination Ditch along I-10, TSM strategies are not applicable to the project.

1.8 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications (PLACs) listed in the following table would be required for project construction:

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

Agency	PLAC	Status
State Water Resources Control Board	-National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 2012-0011-DWQ, NPDES No. CAS000003) and its subsequent amendments. -NPDES General Permit, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activities (Order No. 2009-0009-DWQ-NPDES No. CAS000002).	The current NPDES General Construction Permit would be applied for prior to project construction.
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement	Application for permit will be submitted to CDFW after approval of the final Environmental Document. Permit will be acquired prior to completion of final design.
Regional Water Quality Control Board (RWQCB)	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. Fish and Wildlife Service (USFWS)	Programmatic Biological Opinion for Desert Tortoise	Submitted to USFWS 11/8/21, application was deemed complete 12/15/21, Final BO Concurrence received 3/29/22.

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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.

- Land Use: The project would replace existing rock slope protection (RSP) for four bridges at Three Star Ditch and Determination Ditch along Interstate 10 (I-10) in Riverside County. No relocation of residences or businesses and no change in land use would occur as a result of the project. As such, the project would be consistent with the existing land use.
- 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.
- Farmlands: According to the California Department of Conservation's Farmland Mapping and Monitoring Program, no farmlands have been mapped as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance in the project area. As such, the project would have no effects on farmlands.
- Growth: The project would restore scour protection at the bridges at Three Star Ditch and Determination Ditch to meet current standards, maintain bridge stability and functionality, and protect the bridges from detrimental sediment build up near the abutments. It would not change accessibility, increase capacity of the roadway, or influence growth. As such, no growth impacts or indirect impacts on growth would occur as a result of the project.
- Community Impacts: The project is located in a rural area with scattered residences located along the I-10/Summit Road on-and-off-ramps to the west of the project site and near the Julian Hinds Pumping Plant to the north of the project site. The project limits are located within the Caltrans right of way. The I-10 shoulders are open to bicyclists, but pedestrians are prohibited. There is one bus route on I-10 through the project area and the nearest park and ride lot is located approximately 40-miles west in community of Thousand Palms. The project would have no effect on bicyclists, bus routes, or the park and ride facility. Due to the nature of the project, minority or low-income populations would not be adversely affected. There are no residential or business relocations or displacements associated with the project. As such, this project is not subject to the provisions of Executive Order 12898.

- Environmental Justice: The project site is located within rural, open, and vacant land. There are no communities or populations within or adjacent to the project site. Due to this lack of population data, the U.S. Census Bureau does not include data sets for the project site. No minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.
- Timberlands: There are no timberlands or timber harvesting uses in the project area. The proposed project would have no effect on timberlands.
- Traffic and Transportation: The project would not increase capacity of I-10, and the project will not alter or introduce new roadway geometry features within the project limits. Since the project involves restoring scour protection at the bridges at Three Star Ditch and Determination Ditch to meet current standards, impacts to traffic circulation are not anticipated to occur.
- Visual/Aesthetics: The project is located in a rural area surrounded by desert lands. Within the project area, I-10 is not designated as an eligible or officially designated State Scenic Highway. Furthermore, based on the Questionnaire to Determine Visual Impact Assessment (VIA) Level prepared for the project, the analysis resulted in a Project Score of 9, which indicated that no noticeable visual change would occur to the environment and no further visual analysis would be required for the project.
- Wildfire: According to the Cal Fire Local Responsibility Area (LRA), Fire Hazard Severity Zone map for eastern Riverside County, the project is not located in a LRA Very High or High Fire Hazard Severity Zone.
- Energy: The project would replace the existing RSP for the bridges at Three Star Ditch and Determination Ditch on I-10. The one-time energy expenditure involved in constructing the project, considered direct energy, would be minimal. The project would not involve additional traffic lanes or roadway expansions that could lead to energy consumption and there are no new or replacement roadway lighting or other features requiring electricity that would result in ongoing and permanent sources of direct energy consumption. The project would not result in excessive use of indirect energy, including maintenance activities that would result in long-term indirect energy consumption by equipment for maintaining the RSP at either Three Star Ditch or Determination Ditch.
- Paleontology: Based on the Riverside County Paleontological Sensitivity Map, the project site is located in an area that has been designated as “Low” for paleontological sensitivity. As the project involves replacing existing RSP for four bridges at Three Star Ditch and Determination Ditch along I-10, the project would have no effect on paleontological resources.

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

The nearest park to the project site is the Joshua Tree National Park located approximately 1.5 miles north of the project site and the Orocopia Mountains Wilderness located approximately 5 miles south of the project site. The Joshua Tree National Park, encompassing over 792,000 acres and managed by the National Park Service, was first established as a national monument in 1936 and then became a national park in 1994. The park is a transition zone between two desert ecosystems; the Colorado and Mojave Deserts, and provides recreational activities including bird watching, star gazing, backpacking, camping, hiking, horseback riding, and rock climbing. The Orocopia Mountains Wilderness includes 51,300 acres managed by the Bureau of Land Management. The wilderness area offers visitors recreational activities including camping, hiking, horseback riding, hunting, wildlife viewing, and wildlife photography opportunities. Portions of Three Star Ditch are located within land owned by the Bureau of Land Management (BLM) managed land, however not within areas designated as the Orocopia Mountains Wilderness. The table below summarizes the parks and recreational facilities near the project site.

Table 2-1. Parks, Trails, and Recreational Facilities near the Project Limits

Facility Type	Name	Address	Amenities	Distance from Project (miles)
Park	Joshua Tree National Park	6554 Park Boulevard, Joshua Tree, 92252*	4 Visitor Centers with bathrooms and picnic tables. Hiking trails and 9 campsites.	1.5 miles north
Wilderness	Orocopia Mountains Wilderness	20 miles southeast of Indio, northern access provided off of I-10.	Hiking and horseback trails, camping, and wildlife viewing.	5 miles south
Source: National Parks Service Website: https://www.nps.gov/jotr/index.htm. Bureau of Land Management Website: https://www.blm.gov/visit Note: * = Address provided is for the Joshua Tree Visitor Center.				

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 Joshua Tree National Park, located approximately 1.5 miles north of the project site, and the Orocopia Mountains Wilderness, located approximately 5 miles south of the project site, qualifies as Section 4(f) resources. Refer to Figure 2-1, for Section 4(f) resources.

2.1.1.3 Environmental Consequences

Temporary

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.

Build Alternative

The proposed project would not acquire public parkland for non-parkland use; therefore, the California Public Park Preservation Act of 1971 would not apply. No temporary easements or temporary closures would be required at Joshua Tree National Park, as it is located approximately 1.5 miles north of the project site, or at Orocopia Mountains Wilderness, as it is located approximately 5 miles south of the project site. Temporary unpaved access roads and

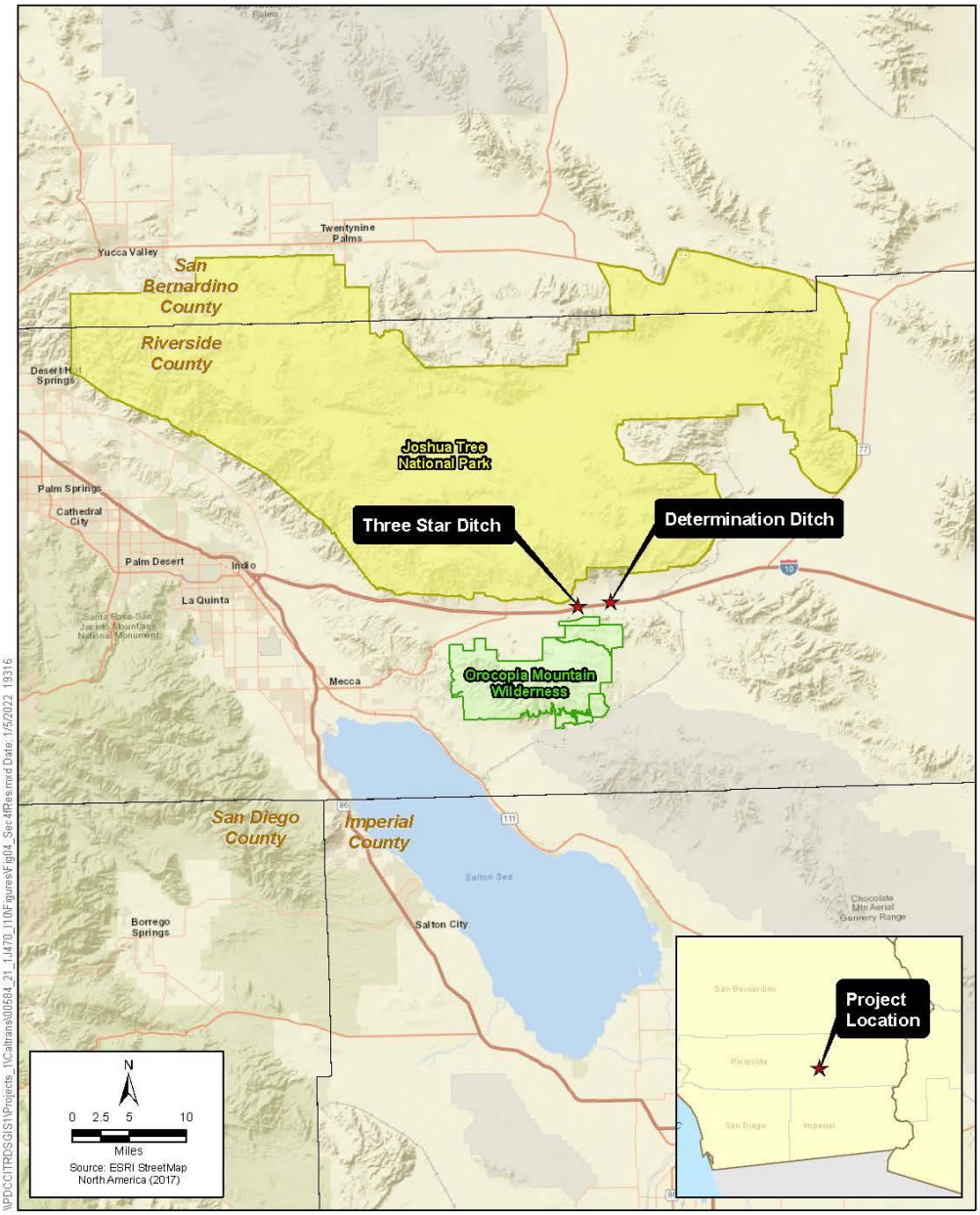

Figure 2-1
Section 4(f) Resources
I-10 Rock Slope Protection Project

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staging equipment areas would be required at Three Star Ditch to provide construction personnel access to perform all necessary work. A Temporary Construction Easement (TCE) would be required from the Bureau of Land Management (BLM) managed land to provide the temporary construction access road and staging areas at the Three Star Ditch bridge. The temporary access roads and staging equipment areas will be removed at the conclusion of construction. No other temporary impacts on these facilities are anticipated.

Section 4(f) Properties
There are parks and recreational facilities within the project vicinity that are protected by Section 4(f) of the Department of Transportation Act of 1966. However, this project will not "use" those facilities as defined by Section 4(f). Please see Appendix A under the heading "Resources Evaluated Relative to the Requirements of Section 4(f)" for additional details.

Permanent

No-Build Alternative
Under the No-Build Alternative, the project improvements would not be carried out. Therefore, no existing or planned parks or recreational facilities in the area would be affected, and no direct or indirect adverse long-term impacts on recreational and Section 4(f) resources would occur.

Build Alternative
The Build Alternative would not result in permanent impacts on the Joshua Tree National Park, as it is located approximately 1.5 miles north of the project site, or the Orocopia Mountains Wilderness, as it is located approximately 5 miles south of the project site. No permanent impacts under CEQA or adverse effects under NEPA would occur with implementation of the Build Alternative.

Section 4(f) Properties
As previously mentioned, there are parks and recreational facilities within the project vicinity that are protected by Section 4(f) of the Department of Transportation Act of 1966. However, this project will not "use" those facilities as defined by Section 4(f). Please see Appendix A under the heading "Resources Evaluated Relative to the Requirements of Section 4(f)" for additional details.

2.1.1.4 Avoidance, Minimization, and/or Mitigation Measures

Due to the nature of the project, which is to restore scour protection at two bridges along I-10, the project would not result in impacts to Joshua Tree National Park which is located approximately 1.5 miles north of the project site or to Orocopia Mountains Wilderness, which is located approximately 5 miles south of the project site. Therefore, no avoidance, minimization or mitigation measures are necessary.

2.1.2 Utilities/Emergency Services

2.1.2.1 Affected Environment

Utilities

There are no visible utilities or utility facilities that are within the project limits. There are no landscaped areas within the project limits, as such, there are no landscape irrigation facilities present within the project limits. There are no existing drainage inlets within the project limits and the roadway medians drain to the Three Star Ditch and Determination Ditch wash. Furthermore, there are no drinking water reservoirs or recharge facilities located within the project limits. There is a possibility of underground utilities below the soft bottom wash. Potholing in the project area would occur, as necessary, to locate and identify utilities that may be located below the soft bottom wash.

Emergency Services

Fire
The nearest fire stations to the project site are the Riverside County Fire Department Station 49, located at 43880 Tamarisk Drive in Desert Center, approximately 17 miles to the east, the Riverside County Fire Department Station 41, located at 99065 Corvina Drive in Mecca, approximately 20 miles to the southwest, and the Riverside County Fire Department Station 87 located at 42900 Golf Center Parkway in Indio, approximately 30 miles to the west of the project site.

Police
The City of Indio Police Department is located at 46800 Jackson Street, approximately 30 miles from the project site. The police department currently has a staff of approximately 80 employees. The police department is divided up into five policing divisions. The Field Services Division is responsible for crime control and public safety issues in its assigned patrols.

The California Highway Patrol (CHP) has patrol jurisdiction over all California highways and can act as the state police. It also has jurisdiction over city roads and may conduct law enforcement procedures there as well. The California Highway Patrol cooperates with both county and city police departments and provides secondary support services when needed. The nearest CHP office is located at 79650 Varner Road in Indio, approximately 35 miles west of the project site.

Hospitals
The nearest hospital to the project site is John F. Kennedy Memorial at 47111 Monroe Street. The hospital is approximately 30 miles west of the project site in the City of Indio. It is a 145-bed acute-care hospital with 24/7 emergency care services.

2.1.2.2 Environmental Consequences

Temporary

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

Build Alternative

Utilities

There are no visible utilities or utility facilities present within the project limits. There are also no landscaped areas and, as such, there are no landscaped irrigation facilities present within the project limits. The project would not impact the accommodation for wired broadband facilities and there are no drinking water reservoirs or recharge facilities located within the project limits. There is a possibility of unknown underground utilities below the soft bottom wash. Potholing in the project area would occur to locate and identify any utilities, if necessary.

Emergency Services

The proposed project will be constructed by keeping both lanes of I-10 open to traffic in each direction at all times. Emergency service vehicles and emergency response times would not be impacted by the project as no construction would occur on the roadway. A Transportation Management Plan (TMP) will be implemented during the construction phase of the project to maintain safe traffic movements through the construction zone.

Permanent

No-Build Alternative

Under the No-Build Alternative, I-10 and the surrounding transportation network would be maintained; therefore, no changes to operation of I-10 in the project area would occur. No long-term impacts on utilities or I-10 would occur under the No-Build Alternative.

Build Alternative

Utilities

As the project involved restoring scour protection at the bridges at Three Star Ditch and Determination Ditch, permanent impacts to utilities are not anticipated to occur.

Emergency Services

As the project would not alter or introduce new roadway geometry features and would not change the number of lanes on I-10 from existing conditions, permanent impacts to emergency services or emergency response times are not anticipated to occur.

2.1.2.3 Avoidance, Minimization, and/or Mitigation Measures

TMP-1 A Transportation Management Plan (TMP) will be prepared during the final design phase to minimize traffic impacts during construction. The primary objective of the TMP is to maintain safe movement through the construction zone, as well as minimize traffic delays during the construction period. The TMP will include, but not be limited to public information communications, information for motorists from changeable message signs or temporary signs, incident management plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor, and construction strategies such as traffic plans.

2.1.3 Cultural Resources

2.1.3.1 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 Public Resources Code (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. Include the following sentence as applicable. 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.

2.1.3.2 Affected Environment

Information from this section is based on the *Historic Property Survey Report* (HPSR) prepared for this project, which included an *Archaeological Assessment Memorandum*.

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 and Ashraf Habbak, Project Manager in October 2021. The APE maps are Exhibit 3 in Attachment A of the HPSR.

The APE was established to include all direct and indirect impacts, both horizontally and vertically, in the project limits. The horizontal component of the APE includes the entire right of way at each bridge except on the east bound side of the APE which stops at the fence line outside of the wash areas. The APE at each bridge location extend approximately 650 feet east and west. The vertical APE component includes the height of each bridge, including guardrail on top of the bridge and the RSP outside and below the bridge.

There are no associated features belonging to significant built environment or cultural resources that exist within or adjacent to the project limits, as such, the extension of the APE to include indirect effects to Historic Properties was not warranted. The project is located in an existing, well-utilized and maintained transportation corridor with the majority of the ground disturbing activities taking place on exiting bridges and in high velocity wash areas that experience intermittent flooding and erosion which are not conducive to archaeological preservation. The likelihood of encountering intact subsurface cultural materials within the APE is considered to be low.

Native American Consultation

A request to the Native American Heritage Commission (NAHC) was made on December 9, 2020, to elicit pertinent cultural resource information available in the Sacred Lands File. The NAHC responded on December 30, 2020, indicating that the Sacred Lands File search for the project was completed with negative results. The NAHC provided a list of Native American contacts within the region. In accordance with Section 106 of the NHPA, and as required under CEQA, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (i.e., AB 52), the Department consulted with pertinent Native American contacts to identify potential resources within the APE.

Section 4.1.3 (Native American Coordination) of Chapter 4 (Comments and Coordination) of this 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). In addition, a complete record of Native American consultation is included in Attachment D to the HPSR.

Archaeological Resources

The following sources were consulted during Phase I (cultural resource identification) studies, prior to the archaeological field survey:

- 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 NAHC
- Caltrans Historic Bridge Inventory
- Caltrans Cultural Resources Database (CCRD)
- Historic topographic maps and aerial photos
- California Historical Resources Information System (CHRIS) files maintained at the Eastern Information Center, University of California, Riverside

The results of the cultural review resulted in identification of three cultural resources within the study area, which consisted of each bridge location and a quarter mile radius. The three cultural resources include two Historic Built Environment Resources: P-33-17766- Earthen Dikes, and P-33-008706- Highway 60/70 and CHL-985-DTC/C-AMA-Desert Training Center. The two Historic Built Environment Resources (P-33-17766-Earthen Dikes and P-33-008706-Highway 60/70) are both outside of the project APE boundaries. The project APE is located within the overall boundaries of resource CHL-985-DTC/C-AMA-Desert Training Center. However, there are no associated features, artifacts or contributing elements of the DTC/AMA in the project APE nor Caltrans right of way.

2.1.3.3 Environmental Consequences

Temporary

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

Build Alternative
Two Historic Built Environment Resources (P-33-17766-Earthen Dike and P-33-008706-Highway 60/70) were identified to lie outside of the project APE. The project APE was located within the overall boundaries of one resource (CHL-985-DTC/C-AMA-Desert Training Center). However, there are no associated features, artifacts or contributing elements of the DTC/AMA resource in the project APE nor within Caltrans right of way. Furthermore, the project area was inventoried in it entirety, as part of other Caltrans projects, with pre-field surveys followed by intensive pedestrian surveys. The surveys resulted in field verification that

the three cultural resources (P-33-17766-Earthn Dikes, P-33-008706-Highway 60/70, and CHL-985-DTC/C-AMA-Desert Training Center) all are located outside the project APE and Caltrans right of way.

The project APE has limited potential to encounter significant subsurface cultural deposits. The project APE is located at bridge locations and in the associated washes within the Caltrans right of way that experiences intermittent high-velocity fluvial episodes. This creates an unlikely potential for archaeological preservation. As such, the probability of encountering cultural deposits during ground disturbing activities associated with the project is extremely low.

Based on review of historical and aerial photography of the project area, the APE has experienced heavy amounts of disturbance between 1944 to present. Previous construction, roadway expansions, construction of transport facilities, and other natural processes that have occurred within the project APE have resulted in the incorporation of surface cultural manifestations into subsurface deposits, which have created a loss in archaeological integrity and significance. As such, the probability of encountering cultural deposits or affecting cultural resources eligible for or listed on the National Register of Historic Places (NRHP) during construction activities is considered to be extremely low.

If buried cultural resources are encountered during Project Activities, it is Caltrans policy that work stop within 60 feet of the area until a qualified archaeologist can evaluate the nature and significance of the find.

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) 260-5178 and Gary Jones, DNAC: (909) 261-8157. Further provisions of PRC 5097.98 are to be followed as applicable.

Permanent

No-Build Alternative

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

Build Alternative

As stated above, the three cultural resources (P-33-17766-Earthen Dikes, P-33-008706-Highway 60/70, and CHL-985-DTC/C-AMA-Desert Training Center) lay outside of the project APE and Caltrans right of way. The project APE has limited potential to encounter significant subsurface cultural deposits and historical aerial photographs indicate that the APE has experienced heavy amounts of disturbance from roadway expansions, maintenance and signage, and construction of public transport facilities. As such, the probability of affecting cultural resources eligible for or listed on the NRHP is considered extremely low.

2.1.3.4 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.

CR-1 If buried cultural resources are encountered during Project Activities, it is Caltrans policy that work stop within 60 feet of the 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 Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 260-5178 and Gary Jones, DNAC: (909) 261-8157. Further provisions of PRC 5097.98 are to be followed as applicable.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

2.2.1.1 Regulatory Setting

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

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

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

2.2.1.2 Affected Environment

The primary source used in the preparation of this section is the *Bridge Scour, Three Star Ditch Bridge No. 56-0129R/L Preliminary Hydraulic Report,* the *Bridge Scour, Determination Ditch Bridge No. 56-0124 R/L Preliminary Hydraulic Report, Draft Final Hydraulic Report, Determination Ditch Bridge, Draft Final Hydraulic Report Three Star Ditch Bridge,* and the *Environmental Study Request (ESR) Memo for Hydraulics.*

The Three Star Ditch and Determination Ditch is located north of an active alluvial fan, where earthen training dikes direct floodwater through the bridge opening. The Three Star Ditch and Determination Ditch materials consist of medium to coarse sand bed with gravel, and medium-sized brush growing within the channel bottom and patches of mature trees growing along the embankments. Within the Red Butte Wash, located to the north of the project site, both the Three Star Ditch and Determination Ditch watersheds drain through bridges within the I-10 that traverse the wash. The Red Butte Wash watershed is a natural sump, with no outlet to coastal areas or navigable waterways, and infiltrates into a playa, Hayfield Lake, less than 2 miles to the north of the I-10 and the project area. Within the Red Butte Wash, two watershed areas originate at the Orocopia Mountains, where runoff spreads into the natural alluvial fans with a multitude of braided arroyos. The project site was also determined to not be within a floodplain.

2.2.1.3 Environmental Consequences

Temporary

No-Build Alternative
Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, there would be no short-term impacts on hydrology or floodplains at Three Star Ditch or Determination Ditch.

Build Alternative
Based on the Preliminary Hydraulics Report for both bridges, it was concluded that the existing RSP is sized appropriately but did not appear to have consistent gradation throughout the bridge extents, including the banks between the two bridges at Three Star Ditch and Determination Ditch. There were areas of the RSP that appeared to be too small or coverage was limited, especially at the top of slope and the apron locations. Implementation of the proposed project would address these concerns. Furthermore, as concluded in the Environmental Study Report Memorandum for Hydraulics, the project is not located within a floodplain, and there is no potential for construction activities to impact any floodplains.

Permanent

No-Build Alternative
Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, there would be no long-term impacts on hydrology or floodplains.

Build Alternative
The existing RSP at both Three Star Ditch and Determination Ditch locations have been determined as inadequate with voids present along the banks of the abutments and along the channel banks in the roadway median. The Three Star Ditch and Determination Ditch bridges area deemed scour critical as the RSP is not considered adequate and the abutment spread footings are prone to undermining and scouring. Implementation of the project would restore scour protection at the bridges at Three Star Ditch and Determination Ditch to meet the current standards, maintain bridge stability and functionality, and protect the bridges from detrimental sediment build up near the abutments. As such, implementation of the project would result in long-term beneficial impacts to hydrology.

2.2.1.4 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required.

2.2.2 Water Quality and Storm Water Runoff

2.2.2.1 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 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

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

(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 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.

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

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.

2.2.2.2 Affected Environment

The primary source used in the preparation of this section is the *Natural Environment Study/Minimal Impacts*.

The project area is within an arid region with little natural perennial surface water. Average annual precipitation is approximately 4.70 inches, which falls primarily as rain. Based on the

average rainfall totals for the Chiriaco Summit weather station, the 2018/2019 and 2019/2020 wet seasons were above to well above average, while the 2017/2018 and 2020/2021 wet seasons were well below average. As a result of the variability of rainfall, the surface hydrology is dominated by ephemeral washes, flowing only during storm events and remaining dry for most of the year. The project is located within the jurisdiction of the Colorado River Regional Water Quality Control Board with the closest receiving water bodies being Hayfield Lake. The southern Mojave Watershed encompasses approximately 22,965 square kilometers within Riverside, San Bernardino, and Imperial Counties. The most prominent washes within the Red Butte Wash and Hayfield Lake subwatersheds include Red Butte Wash and Cholla Wash that run from the Eagle Mountains, north of the project site. Additional unnamed washes run from the Orocopia Mountains south of the project site. The drainages within the project site occur within the Red Butte Wash and Hayfield Lake subwatersheds and flow is directed north toward Hayfield Lake, which serves as a reservoir for the Colorado River Aqueduct. The western drainage flows north of the project site and is a tributary to a feature located north of the project limits. Based on topographic maps, these features are presumed to flow northeast into Hayfield Lake, approximately 3.35 miles downstream. The eastern drainage of the project site flows north, directly connecting to Hayfield Lake, approximately 0.98 mile downstream. The receiving water bodies are not on the 2010 303(d) List of Water Quality Limited Segments. The location of work for the project is not located within a Municipal Separate Storm Sewer System (MS4) area boundary. Furthermore, there are no drinking water reservoirs or recharge facilities within the project limits.

2.2.2.3 Environmental Consequences

Temporary

No-Build Alternative

Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, no construction-related impacts to water quality would occur.

Build Alternative

During the construction phase, work will occur within the riverbed of the receiving waters. The temporary disturbed surface area (DSA) is 4.7 acres for the build alternative. The DSAs are defined by the Department as being areas of exposed, erodible soil that are within the construction limits and that result from construction activity. Disturbed soils are susceptible to high rates of erosion from wind and rain, resulting in sediment transport via storm water runoff from the proposed project area. Since the project's total DSA exceeds one acre, pursuant to the NPDES permit requirements, a SWPPP would be prepared prior to construction to identify BMPs to be implemented during construction activities. The SWPPP, which would identify BMPs to mitigate water quality effects on receiving waters resulting from surface water runoff from the project site, would be required as part of the General Permit from the SWRCB and include development of a Construction Site Monitoring Program (CSMP). Short-term construction effects associated with soil erosion and discharge of other construction-related pollutants into surface waters can be avoided or minimized through the implementation of BMPs for erosion control in compliance with the NPDES permit requirements.

Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and 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. At no time (either during construction or after construction), for any work outside the Caltrans right of way, will untreated storm water discharge onto SR-10 without first being treated.

A 401 Water Quality Certification would be required to ensure that the discharge to waters regulated by the State would comply with applicable effluent limitations and water quality standards. Furthermore, a Section 1602 Streambed Alteration Agreement from CDFW for impacts on State-regulated jurisdictional areas would be required for the proposed project.

Permanent

No-Build Alternative

Under the No-Build Alternative, none of the proposed project improvements would be implemented; therefore, no increase in runoff flow velocities, volumes, or peak flow rates would occur. The No-Build Alternative would not increase impervious area or change land use in the project area. Therefore, drainages and surface runoff would remain consistent with current conditions, and roadway runoff in this area would remain unchanged from existing conditions. This alternative would not result in an increase in long-term pollutant loading. However, the No-Build Alternative does not preclude the construction of other future improvements or general maintenance to improve the operation of the facility or incorporate drainage enhancements.

Build Alternative

The project would replace the existing RSP and the existing bridge railing at Three Star Ditch and Determination Ditch on I-10. The project would not add any new impervious surface area. The medians within the project limits drain to into the wash for Three Star Ditch and Determination Ditch, as a result, the project would consider installing inlets, desilting basins, and sediment traps within the median to capture sediment and prevent sediment discharge into the wash areas. As mentioned above, at no time (either during construction or after construction), for any work outside the Caltrans right of way, will untreated storm water discharge onto SR-10 without first being treated. The project limits are not within an area designated as a significant trash generating areas, as such, this project is not required to implement permanent trash treatment BMPs. No other permanent treatment BMPs are required for the project.

2.2.2.4 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 Section 401 Water Quality Certification from the RWQCB, a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife will be obtained prior to impacts within identified jurisdictional areas.

2.2.3 Geology/Soils/Seismicity/Topography

2.2.3.1 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.

2.2.3.2 Affected Environment

The primary source used in the preparation of this section is the *Natural Environment Study (Minimal Impacts)* prepared for the project.

Regional Geology

The project is located just south of Joshua Tree National Park, in a valley at the foothill of Eagle Mountain to the north and the Orocopia Mountains to the south. The project site includes mostly undeveloped, natural open space. Elevations of the project site range from 1,421 to 1,661 feet above mean seal level. Surface soils observed in the project area were mostly composed of coarse-textured soils developed from alluvium. The project site falls within portions of the Colorado Desert Area soil survey and based on soil map databases, the following soil series occurs within the project area: S1141-Vaiva and Quilotosa. Summary characteristics based on official series descriptions for the soils series are described below.

- Vaiva: The Vaiva series consists of very shallow to shallow, well-drained soils formed in slope alluvium from granite and gneiss. These soils are typically present on hillsides and mountains with slopes of 1 to 65 percent. Vaiva soils have medium to rapid runoff and moderate permeability, with a typic aridic soil moisture regime.
- Quilotosa: This series consists of very shallow to shallow, somewhat excessively drained soils that formed from granitic and metamorphic rocks. These soils are typically present on hillsides and mountains and have slopes of 3 to 65 percent. Quilotosa soils have medium to rapid runoff and moderately rapid permeability, with a typic aridic soil moisture regime.

Seismic

The project is within the eastern Coachella Valley and based on the County of Riverside General Plan, Eastern Coachella Valley Area Plan, the eastern Coachella Valley area is traversed by the San Andreas fault, an active fault with a significant probability of earthquake activity. The San Andreas fault is located approximately 14 miles to the west of the project site. Furthermore, based on the California Department of Conservation, California Geological Survey Fault Activity Map of California, the Chiriaco Fault, located approximately 4 miles to the north and the Hidden Springs fault, approximately 10 miles to the southwest are the nearest faults to the project site. The proposed site is situated in a seismically active region. As is the case for most areas of Southern California, ground shaking resulting from earthquakes associated with nearby and more distant faults may occur at the project site. 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.

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.

Based on the County of Riverside General Plan, Eastern Coachella Valley Area Plan, Seismic Hazards map, the project site is located in an area with no groundwater data with moderate susceptible sediments for liquefaction susceptibility.

Other Geologic Hazards

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. Based on the inland location of the project site, seiches and tsunamis do not pose a hazard to this site.

Slope Stability

As the project is located in an area of relatively flat terrain, the County of Riverside General Plan, Eastern Coachella Valley Area Plan, Slope Instability Map and Steep Slope Map do not designate the project area as being within an area of slope instability or in areas of steep slope angles.

2.2.3.3 Environmental Consequences

Temporary

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.

Build Alternative
During construction of the Build Alternative, excavated soil would be exposed, increasing the potential for soil erosion. Additionally, during a storm event, unprotected soils would be subject to erosion. Potential temporary impacts on the geological environment are expected to occur as a result of construction activities, which include soil erosion and siltation. Construction activities may also temporarily disturb soil outside the facility footprint and within the project right-of-way, primarily in work areas, staging areas, and heavy equipment traffic areas.

Implementation of erosion control measures, as required by the Department and adherence to all requirements set forth in the NPDES permit required for construction activities would address any potential construction-related erosion and siltation impacts. With implementation of these standardized measures, no short-term direct or indirect adverse impacts related to soil erosion would occur during project construction.

Permanent

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 Three Star Ditch and Determination Ditch and exposure to seismic activity and ground shaking could continue.

Build Alternative
Fault-Induced Ground Rupture
There are no known active faults projecting toward or extending across the project site. The potential for surface rupture resulting from the movement of nearby major faults is not known with certainty but is considered low.

The proposed site is situated in a seismically active region. As is the case for most areas of Southern California, ground shaking resulting from earthquakes associated with nearby and more distant faults may occur at the project site. 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. The project would follow the Department's latest design standards and requirements to minimize any effects from fault-induced ground rupture.

Seismic-related Ground Shaking
The proposed project site is within an area where strong seismic shaking occurs given its proximity to the San Andreas Fault Zone. Geologic and seismic hazards associated with a

potential earthquake occurrence include strong ground shaking and seismically induced settlement. Due to the proximity of the San Andreas Fault, there is the potential that ground shaking from seismic activity could impact the site, causing surface shaking and potentially surface displacement of soils. Conformance and adherence to standard engineering practices and the Department's design criteria, would reduce the effects of seismic ground shaking.

Liquefaction and Seismically Induced Settlement
The project site is located in an area with no groundwater data with moderate susceptible sediments for liquefaction susceptibility according to the County of Riverside General Plan, Eastern Coachella Valley Area Plan, Seismic Hazards map. The project would follow the Department's latest design requirements to minimize any potential effects related to liquefaction and seismically induced settlement. With incorporation of the standard project measure listed below, no direct or indirect, adverse, long-term impacts would occur as a result of the proposed project.

Tsunami/Seiches
Based on the inland location of the project site, seiches and tsunamis do not pose a hazard to this site. Impacts are not anticipated in this regard.

Slope Stability
The project is not designated as being within an area of slope instability or in areas of steep slope angles. Impacts are not anticipated in this regard.

2.2.3.4 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 Section 13-5 which includes specifications for placing temporary soil stabilization materials for temporary erosion control. This may include, but not limited to, the use of erosion control blankets, temporary mulch, soil binders, temporary covers, and gravel-filled bags.

GEO-2 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. This includes, but not limited to, the use of compost, seed application, application of tackifier, imported topsoil, fiber rolls, and erosion control blankets.

2.2.4 Hazardous Waste/Materials

2.2.4.1 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.

2.2.4.2 Affected Environment

The primary sources used in the preparation of this section are the *Site Investigation and Hazardous Materials Survey Report* and the *Initial Site Assessment (ISA) Checklist* prepared for the project.

Environmental Records Review

The project site was verified for listing on either the EnviroStor or GeoTracker online databases. EnviroStor is the Department of Toxic Substances Control's data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites within known contamination or sites where there may be reasons for further investigations. The project site is not listed on the EnviroStor database. The nearest EnviroStor listed site to the project site is the following:

> Shavers Summit Airfield (80000478) Indio, California. Located approximately 1.8 miles west of the project site. Cleanup Status: Designated as Inactive-Needs Evaluation as of 07/01/2005 with no causes of past use that caused contamination and no specifications for potential contaminants of concern.

GeoTracker is the State Water Resources Control Board's data management system for sites that impact, or have the potential to impact water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as Leaking Underground Storage Tanks (LUST) sites, Department of Defense Sites, and Cleanup Program Sites. GeoTracker also contains records for various unregulated projects as well as permitted facilities including irrigated lands, oil and gas production, operating permitted Underground Storage Tanks (USTs), and Land Disposal sites. The project site is not listed on the GeoTracker database. The nearest GeoTracker listed site is the following:

> Cottonwood Ranger Station (T0606500665) Chiriaco Summit, California. Located approximately 2 miles west of the project site. Listed as a LUST cleanup site. The cleanup status was designated as Completed-Case Closed as of 07/10/1992. The potential contaminant of concern was listed as gasoline in the soil.

No other sites are listed on the EnviroStor or GeoTracker databases near the project site.

Soil Investigation

The Site Investigation and Hazardous Materials Survey Report included soil investigation fieldwork and soil borings which were conducted on February 22 and 23, 2021. Soil borings were generally located no closer than six feet from the edge of pavement within the existing Caltrans right of way within the proposed improvement areas. Soil samples from the borings were logged and submitted to a laboratory for analysis.

A total of 34 soil samples were taken from the project site and analyzed. The results indicated that the total lead concentrations of the samples ranged from 1.8 to 35 milligrams per kilograms (mg/kg). None of the samples reported total lead above the California Total Threshold Limit Concentration (TTLC) of 1,000 mg/kg or above the Aerially Deposited Lead (ADL) threshold of

80 mg/kg. Soluble lead concentrations ranged from 0.087 to 0.44 milligrams per liter (mg/l). None of the samples reported soluble lead above the California Soluble Threshold Limits Concentrations (STLC). The pH was also analyzed in the soil samples and were well within the range of nonhazardous waste and above the ADL soil re-use thresholds.

ACM and LBP Surveys

Asbestos-containing materials (ACM) and Lead Based Paint (LBP) surveys were conducted to identify, estimate quantities, and assess the condition of asbestos in suspected structural components of the project area bridges, the content of lead on painted structural surfaces, and to make general recommendations for handling and disposing of ACMs and LBPs. Visual inspections were performed to identify sources of friable and non-friable ACMs and visual inspections and sampling was performed for LBPs. Samples were collected from suspected ACMs and from paint chips of painted surfaces for laboratory analysis.

A total of 54 samples were collected for ACMs from asphalt, concrete, joint seals, and reflector mastic materials at the project site. ACMs were not detected in any of the samples submitted for analysis.

The total lead concentrations reported for the white lane paint striping and yellow lane paint striping were 3.3 to 11 mg/kg. Based on the laboratory analysis, none of the samples reported a concentration above the California TTLC of 1,000 mg/kg for lead and none of the paint samples meet the definition of LBP.

2.2.4.3 Environmental Consequences

Temporary

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.

Build Alternative
During construction of the proposed project, there would be a possibility of accidental release of hazardous substances. However, the level of risk associated with the accidental release of hazardous substances is not considered to be adverse due to the small volume and low concentration of hazardous materials utilized during construction.

Exposure to Asbestos-Containing Materials, Lead-Based Paint, and Aerially Deposited Lead
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 system right-of-way within the limits of the project 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. Based on the analysis conducted, ADL may be present in the near surface soils at certain locations within the project construction areas at very low concentrations. None of the samples reported total lead above the

ADL threshold of 80 mg/kg. None of the soil samples were characterized as being California or Resource Conservation and Recovery Act (RCRA) hazardous waste. ACMs were not detected in any of the samples analyzed at the project area bridges. None of the paint chip samples reported a concentration above the California TTLC of 1,000 mg/kg for lead and none of the samples meets the definition of LBP.

Permanent

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.

Build Alternative
Following construction of the proposed project, 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 Alternative would not result in adverse effects. Permanent impacts (direct or indirect) related to hazardous materials are not anticipated as a result of the Build Alternative because operation of the proposed project would not generate hazardous waste.

2.2.4.4 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 Comply with the following Department Standard Special Provisions regarding non-hazardous soils, National Emissions Standards for Hazardous Air Pollutants (NESHAP) notification, and treated wood waste:

- Section 7-1.02K(6)(j)(iii), Non-hazardous soil.
- Section 14-9.02, NESHAP notification.
- Section 14-11.14, Treated wood waste.

2.2.5 Air Quality

2.2.5.1 Regulatory Setting

Federal

Federal Clean Air Act

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM_{10}) and particles of 2.5 micrometers and smaller ($PM_{2.5}$), Lead (pb), and sulfur dioxide (SO_2). In addition, state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel "Conformity" requirement under the FCAA also applies.

Conformity

The conformity requirement is based on FCAA Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and in some areas (although not in California), sulfur dioxide (SO_2). California has nonattainment or maintenance areas for all of these transportation-related "criteria pollutants" except SO_2, and also has a nonattainment area for lead (Pb); however, lead is not currently required by the FCAA to be covered in transportation conformity

analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the "open-to-traffic" schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and EPA-approved emissions models; and in PM areas, the project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

2.2.5.2 Affected Environment

The primary source used in the preparation of this section is the *Air Review-Environmental Study Request Memorandum,* and the *Natural Environment Study (Minimal Impacts)* prepared for the project.

Environmental Setting

The project site is located south of Joshua Tree National Park, in a valley at the foothill of Eagle Mountain to the north and the Orocopia Mountains to the south. The project site is mostly undeveloped, natural open space. The project site lies within the northeastern portion of the Salton Sea Air Basin (SSAB or Basin), which includes the Coachella Valley portion of Riverside County and all of Imperial County. Air quality regulation in Salton Sea Air Basin is administered by the South Coast Air Quality Management District (SCAQMD).

Climate

The project site lies at an elevation that ranges from 1,421 to 1,661 feet above mean sea level. The project site is located within an arid, desert region, with the average winter low temperature in the vicinity at 40.3 degrees Fahrenheit (°F) and the average summer high temperature of 100.8 °F. Average annual precipitation is approximately 4.70 inches, which falls primarily as rain.

Attainment Status

Regional air quality is monitored by SCAQMD and ARB. These two agencies operate a network of air quality monitoring stations in the Air Basin. The U.S. EPA determines regional air quality status based on data collected from these permanent monitoring stations. Existing air quality

conditions in the project area can be characterized in terms of the ambient air quality standards that the State of California and the federal government have established for several different pollutants. For some pollutants, separate standards have been set for different measurement periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). Table 2-2 provides the state and federal ambient air quality standards.

Table 2-2. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State[1] Standard	Federal[2] Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Ozone (O_3)[3]	1 hour	0.09 ppm[4]	---	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NO_X) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.	Nonattainment (Extreme)	---
	8 hours	0.070 ppm	0.070 ppm (4^{th} highest in 3 years)			Nonattainment	Nonattainment (Extreme)
Carbon Monoxide (CO)[5]	1 hour	20 ppm	35 ppm	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Attainment	Attainment (Maintenance)
	8 hours	9.0 ppm	9 ppm			Attainment	Attainment (Maintenance)
	8 hours (Lake Tahoe)	6 ppm	---			N/A	---
Respirable Particulate Matter (PM_{10})[6]	24 hours	50 µg/m^3 [7]	150 µg/m^3 (expected number of days above standard < or equal to 1)	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic & other aerosol and solid compounds are part of PM_{10}.	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.	Nonattainment	Attainment (Maintenance)
	Annual	20 µg/m^3	--- [6]			Nonattainment	---

Pollutant	Averaging Time	State[1] Standard	Federal[2] Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Fine Particulate Matter ($PM_{2.5}$)[8]	24 hours	---	35 µg/m^3 [6]	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the $PM_{2.5}$ size range. Many toxic & other aerosol and solid compounds are part of $PM_{2.5}$.	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NO_X, sulfur oxides (SO_X), ammonia, and ROG.	---	Nonattainment (Serious)
	Annual	12 µg/m^3	12.0 µg/m^3			Nonattainment	Nonattainment (Serious)
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm	0.100 ppm[9]	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the "NO_X" group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.	Attainment	Attainment (Unclassifiable)
	Annual	0.030 ppm	0.053 ppm			Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO_2)[10]	1 hour	0.25 ppm	0.075 ppm (99th percentile over 3 years)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.	N/A	Attainment (Unclassifiable)
	3 hours	---	0.5 ppm[11]			---	N/A
	24 hours	0.04 ppm	0.14 ppm (for certain areas)			N/A	Attainment (Unclassifiable)
	Annual	---	0.030 ppm (for certain areas)			---	Attainment (Unclassifiable)

Pollutant	Averaging Time	State[1] Standard	Federal[2] Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Lead (Pb)[12]	Monthly	1.5 µg/m^3	---	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.	N/A	---
	Calendar Quarter	---	1.5 µg/m^3 (for certain areas)			---	N/A
	Rolling 3-month average	---	0.15 µg/m^3 [13]			---	Nonattainment (Partial)
Sulfates	24 hours	25 µg/m^3	---	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.	Attainment	N/A
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm	---	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.	Attainment	N/A

Pollutant	Averaging Time	State[1] Standard	Federal[2] Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status
Visibility Reducing Particles (VRP)[14]	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at relative humidity less than 70%	---	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.	Unclassified	N/A
Vinyl Chloride[12]	24 hours	0.01 ppm	---	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes	Attainment	N/A

Adapted from the California ARB Air Quality Standards chart (http://www.arb.ca.gov/research/aaqs/aaqs2.pdf).
Greenhouse Gases and Climate Change: Greenhouse gases do not have concentration standards for that purpose. Conformity requirements do not apply to greenhouse gases.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations

[2] Federal standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[3] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. Transportation conformity applies in newly designated nonattainment areas for the 2015 national 8-hour ozone primary and secondary standards on and after August 4th, 2019 (see Transportation Conformity Guidance for 2015 Ozone NAAQS Nonattainment Areas).

[4] ppm = parts per million

[5] Transportation conformity requirements for CO no longer apply after June 1, 2018, for the following California Carbon Monoxide Maintenance Areas (see U.S. EPA CO Maintenance Letter).

[6] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[7] $\mu g/m^3$ = micrograms per cubic meter

Pollutant	Averaging Time	State[1] Standard	Federal[2] Standard	Principal Health and Atmospheric Effects	Typical Sources	State Project Area Attainment Status	Federal Project Area Attainment Status

[8] The 65 µg/m^3 $PM_{2.5}$ (24-hr) NAAQS was not revoked when the 35 µg/m^3 NAAQS was promulgated in 2006. The 15 µg/m^3 annual $PM_{2.5}$ standard was not revoked when the 12 µg/m^3 standard was promulgated in 2012. Therefore, for areas designated nonattainment or nonattainment/maintenance for the 1997 and or 2006 $PM_{2.5}$ NAAQS, conformity requirements still apply until the NAAQS are fully revoked.

[9] Final 1-hour NO_2 NAAQS published in the Federal Register on 2/9/2010, effective 3/9/2010. Initial area designation for California (2012) was attainment/unclassifiable throughout. Project-level hot spot analysis requirements do not currently exist. Near-road monitoring starting in 2013 may cause re-designation to nonattainment in some areas after 2016.

[10] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[11] Secondary standard, the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant rather than health. Conformity and environmental analysis address both primary and secondary NAAQS.

[12] The ARB has identified vinyl chloride and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM_{10} and, in larger proportion, $PM_{2.5}$. Both the ARB and U.S. EPA have identified lead and various organic compounds that are precursors to ozone and $PM_{2.5}$ as toxic air contaminants. There are no exposure criteria for adverse health effect due to toxic air contaminants, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong.

[13] Lead NAAQS are not considered in Transportation Conformity analysis.

[14] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

Table 2-3 lists the state and federal attainment status for all regulated pollutants. Coachella Valley is in attainment status under the FCAA for CO, NO_2, SO_2, $PM_{2.5}$, and Pb. It is in nonattainment status under the FCAA for O_3 and PM_{10}. Coachella Valley is in attainment status under the California Clean Air Act (CCAA) for CO, NO_2, and SO_2. It is in nonattainment status under the CCAA for O_3 and PM_{10}.

Table 2-3. Salton Sea Air Basin Attainment Status

	Attainment Status	
Pollutant	**National Standards**	**California Standards**
Ozone (1-hour)	No Federal Standard	Nonattainment
Ozone (8-hour)	Nonattainment – Severe 15	Nonattainment
PM_{10}	Nonattainment	Nonattainment
$PM_{2.5}$	Attainment	Attainment
Carbon Monoxide	Unclassifiable/Attainment	Attainment
Nitrogen Dioxide	Unclassifiable/Attainment	Attainment
Sulfur Dioxide	Unclassifiable/Attainment	Attainment
Sulfates	N/A	Attainment
Lead	Unclassifiable/Attainment	Attainment
Notes: (a) U.S. EPA often only declares Nonattainment Areas – everywhere else is listed as Unclassifiable/Attainment or Unclassifiable.		
Source: California Air Resources Board website: https://ww2.arb.ca.gov/resources/documents/ambient-air-quality-standards-0		

Sensitive Receptors

Sensitive receptors are populations that are particularly vulnerable to the effects of air pollution. These populations include residents, children, the elderly, the chronically ill, and sites such as schools, daycare centers, and other locations where vulnerable residents could be exposed. Due to the rural and desert environment of the project site, there are no sensitive receptors located within or adjacent to the project site. The nearest residents are located approximately 1.75-miles to the west of the project site.

Climate Change

Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this document. The CEQA analysis may be used to inform the National Environmental Policy Act (NEPA) determination for the project.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) is present in approximately 44 of California's 58 counties. Asbestos is often found in serpentine rock and ultramafic rock near fault zones. Asbestos is a human health hazard when airborne. Asbestos fibers can be inhaled into lungs, causing inflammation and respiratory ailments and cancers. Based on the California Department of

Conservation, California Geological Survey's Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California map, the project site is not located in an area of NOA.

2.2.5.3 Environmental Consequences

Temporary Construction Impacts

No-Build Alternative
Under the No-Build Alternative, the proposed project would not be constructed. Short-term impacts on air quality would not occur.

Build Alternative
Construction of the project is anticipated to last approximately 7 months. The project would consist of restoring scour protection at the bridges at Three Star Ditch and Determination Ditch to meet current standards, maintain bridge stability and functionality, and protect the bridge from detrimental sediment build up near the abutments. As such, the project is exempt from conformity determinations because it falls under the exempt project list of Reconstructing Bridges-No Additional Lanes, as listed in 40 CFR 93.126.

Air quality impacts from construction activities would occur from combustion emissions from fossil-fueled construction equipment and vehicles, fugitive dust emissions due to grading of exposed soils, and road dust. These construction-related emissions sources would primarily use diesel fuel, emitting combustion exhaust including VOC, CO, NO_x, SO_x, PM_{10} and $PM_{2.5}$. Earth-disturbing activities, such as excavation, would also generate PM_{10} and $PM_{2.5}$.

Construction contractors would be required to follow all applicable SCAQMD rules and regulations, including Rule 403 (Fugitive Dust) and Rule 431 (Diesel Equipment), to minimize air quality impacts. Contractors, for example, would water dust areas and minimize the tracking of soil from unpaved dirt areas to paved roads.

Odors

The project would not be a significant source of odors. The project would modify an existing transportation facility, and any odors generated by the project would be similar in nature to odors generated from the existing facility. Therefore, the project is not anticipated to generate significant odors. Furthermore, construction of the project would not create substantial levels of odors in the surrounding area. 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.

Aerially Deposited Lead

Based on the Site Investigation and Hazardous Materials Survey Report prepared for the project, soil samples taken from the project site indicated that the total lead concentrations ranged from 1.8 to 35 mg/kg, far below the California Total Threshold Limit Concentration of 1,000 mg/kg and below the ADL threshold of 80 mg/kg promulgated in the ADL Agreement.

Naturally Occurring Asbestos

Riverside County is not among the counties listed as containing serpentine and ultramafic rock; therefore, the impact from naturally occurring asbestos during construction of the project would be minimal to none.

Asbestos-Containing Materials

A total of 54 samples were collected from asphalt, concrete, joint seals, and reflector mastic materials at the project area bridges and analyzed for the presence of asbestos. ACMs were not detected in any of the samples submitted for analysis.

Lead

Total lead concentrations reported for the white lane striping and yellow lane striping were 3.3 and 11 mg/kg. Based on the laboratory analysis conducted, none of the samples reported a concentration above the California TTLC of 1,000 mg/kg for lead and none of the samples meet the definition of LBP.

Construction Conformity

Construction activities will not last for more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analysis (40 CFR 93.123(c)(5)).

Permanent Operational Impacts

No-Build Alternative
Under the No-Build Alternative, no improvements would occur. Effects on air quality would not occur.

Build Alternative
The project would not result in additional lanes or add capacity to the existing roadway that would result in long-term, operational emissions. Impacts are not anticipated in this regard.

2.2.5.4 Avoidance, Minimization, and/or Mitigation Measures

AQ-1 The construction contractor will comply with SCAQMD Rule 403 (Fugitive Dust), which specifies actions or control measures to prevent, reduce, or mitigate PM emissions generated from construction, demolition, excavation, extraction, and other earthmoving activities.

AQ-2 Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.

AQ-3 Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas.

AQ-4 Trucks will be washed off as they leave the right of way as necessary to control fugitive dust emissions.

AQ-5 Construction equipment and vehicles will be properly tuned and maintained. Ultra-low-sulfur fuel will be used in all construction equipment as required by California Code of Regulations, Title 17, Section 93114.

AQ-6 Equipment and materials storage sites will be located as far away from residential and park uses as practical. Construction areas will be kept clean and orderly.

AQ-7 Track-out reduction measures, such as gravel pads at project access points, will be used to minimize dust and mud deposits on roads affected by construction traffic.

AQ-8 All transported loads of soils and wet materials will be covered prior to transport or adequate freeboard (i.e., space from the top of the material to the top of the truck) will be provided to reduce PM10 and deposition of particulate during transportation.

AQ-9 Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be removed to decrease PM.

AQ-10 The construction contractor will comply with Caltrans Standard Specifications in Section 14-9.02 and other standard practices according to the California Air Resources Board (ARB) and South Coast Air Quality Management District (SCAQMD) requirements for air quality restrictions, such as reducing idling time, properly maintaining equipment, and controlling fugitive dust during the construction period

AQ-11 Construction equipment fleets will be in compliance with Best Available Control Technology requirements.

AQ-12 All engines or portable engine-driven equipment will be required to obtain permits will obtain either an ARB Portable Equipment Registration or a permit from SCAQMD.

AQ-13 During construction, dust palliatives will be used as specified in the Department's Standard Specifications, Section 18-1.03A, General.

Climate Change

Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this document. The CEQA analysis may be used to inform the National Environmental Policy Act (NEPA) determination for the project.

2.2.6 Noise

2.2.6.1 Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section will focus on the NEPA/Title 23 Part 772 of the Code of Federal Regulations (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with Federal Highway Administration (FHWA) involvement (and the Department, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). Table 2-4 lists the noise abatement criteria for use in the NEPA/23 CFR 772 analysis.

Figure 2-2 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise-levels discussed in this section with common activities.

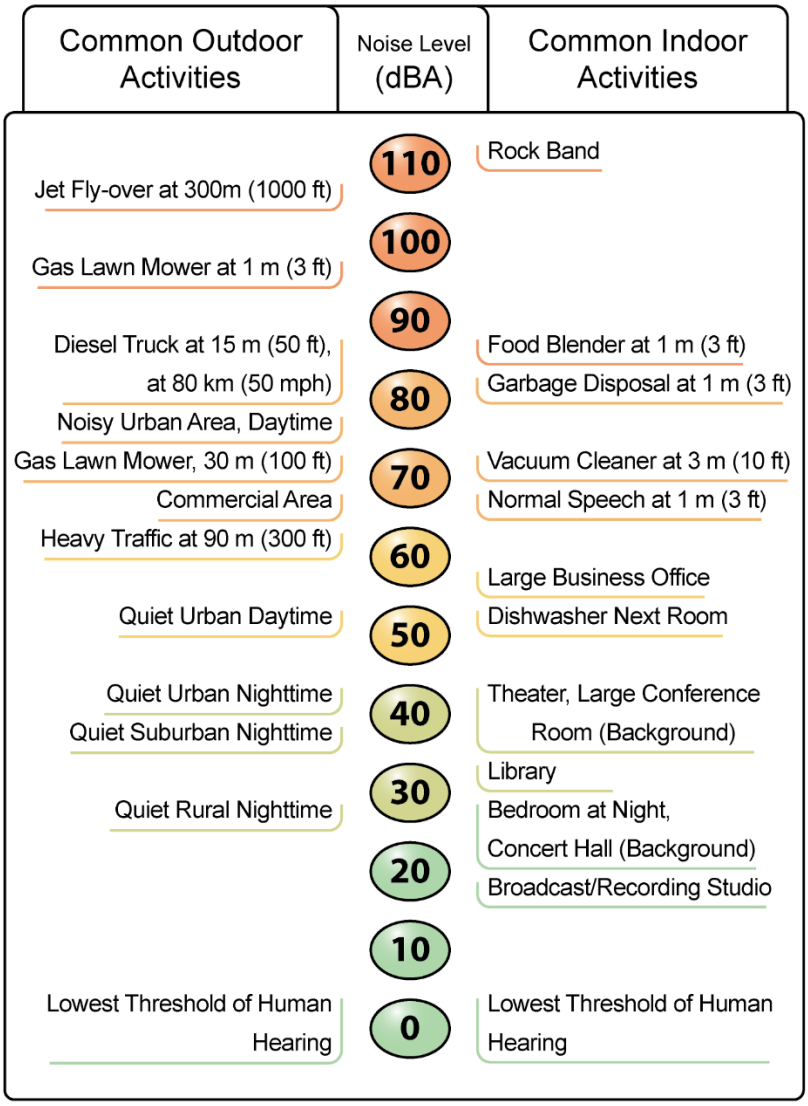
According to the Department's *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, May 2011*, a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

Table 2-4. Activity Categories and Noise Abatement Criteria (Title 23 CFR 772)

Activity Category	NAC, Hourly A- Weighted Noise Level, $L_{eq}(h)$	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[1]	67 (Exterior)	Residential.
C[1]	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC -- reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical, etc.), and warehousing.
G	No NAC – reporting only	Undeveloped lands that are not permitted.

[1] Includes undeveloped lands permitted for this activity category.
Source: California Department of Transportation, ISEA Annotated Outline, January 2022.



Source: California Department of Transportation ISEA Annotated Outline, January 2022.

Figure 2-2 Noise Levels of Common Activities

The Department's *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 dB at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: 1) the noise reduction design goal of 7 dB at one or more impacted receptors; 2) the cost of noise abatement; and 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

2.2.6.2 Affected Environment

The project area consists primarily of undeveloped desert land located south of Joshua Tree National Park, in a valley at the foothill of Eagle Mountain to the north, and the Orocopia Mountains to the south. There are no sensitive receptors within the project area. The nearest development is located approximately 1.75 miles west in the community of Chiriaco Summit along I-10 and the Summit Road interchange.

2.2.6.3 Environmental Consequences

Pursuant to the Department's *Traffic Noise Analysis Protocol* (May 2011), and associated guidance provided in 23 CFR 772, a Type I project is a project that involves any of the following:

1. The construction of a highway on a new location.
2. The physical alteration of an existing highway that would involve either of the following:
   A. Substantial horizontal alteration: a project that halves the distance between the traffic noise source and the closest receptor between the existing condition and the future build condition.
   B. Substantial vertical alteration: a project that removes shielding thereby exposing the line-of-sight between the receptor and the traffic noise source. This is done by altering either the vertical alignment of the highway or the topography between the highway traffic noise source and the receptor.
3. The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a high occupancy vehicle lane, high-occupancy toll lane, bus lane, or truck climbing lane.
4. The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane.
5. The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange.
6. Restriping existing pavement for the purpose of adding a through- traffic lane or an auxiliary lane.
7. The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot, or toll plaza.

The proposed project is not a Type I project, as defined by 23 CFR 772, as such, no noise study was prepared and no other analysis was required. Noise impacts are not anticipated to occur as there are no noise sensitive receptors within or adjacent to the project site. However, to minimize the noise generated during construction, Caltrans standard specification 14-8.02 will be followed.

Temporary Construction Impacts

No-Build Alternative

Under the No-Build Alternative, no construction activities would occur, therefore, there would be no short-term noise impacts.

Build Alternative

During the construction phases within the project area, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Table 2-5 summarizes noise levels produced by construction equipment commonly used on roadway construction projects. As indicated, equipment involved in construction is expected to generate noise levels ranging from 80 to 89 dBA at a distance of 50 feet. Noise produced by construction equipment would be reduced over distance at a rate of approximately 6 dB per doubling of distance.

Table 2-5. Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82
Source: Federal Transit Administration 2006	

Construction noise varies greatly depending on the construction process, type, and condition of equipment used, as well as layout of the construction site. Many of these factors are traditionally left to the contractor's discretion, which makes it difficult to accurately estimate levels of construction noise. Construction noise estimates are approximate because of the lack of specific information available at the time of the assessment. Temporary construction noise impacts would occur at areas located immediately adjacent to the proposed project alignment.

Construction will be conducted in accordance with Section 14-8.02, "Noise Control," of the Department's 2018 SSP. In addition, any local noise ordinances that are more restrictive than the requirements stated in SSP-14-8.02 will be followed during construction. SSP-14-8.02 will be edited specifically for this project during the PS&E phase.

Permanent Operational Impacts

No-Build Alternative

Under the No-Build Alternative, no improvements would be made, as such, no long-term, operational noise impacts would occur.

Build Alternative

The proposed project would not result in any operational noise impacts, and therefore abatement measures are not necessary for operational noise. The contractor will adhere to the minimization measures, as provided below.

2.2.6.4 Avoidance, Minimization and/or Mitigation Measures

NOI-1 The project will comply with sound control provisions as included in Section 14-8.02, "Noise Control," of the Department's Standard Specifications and Special Provisions.

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 the Threatened and Endangered Species section, Section 2.3.5. 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 (Minimal Impacts)* prepared for the project.

The biological study area (BSA) encompasses the project footprint, which includes the project impact area (PIA) and habitats in the immediate project vicinity that may be affected by the project within a 500-foot buffer. The biological surveys conducted for the project include the Caltrans right of way and a 50-foot buffer.

Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) was developed to ensure the conservation and coordinated reservation of habitat for a number of state and federal listed threatened and endangered species and other special status species while enabling development in Coachella Valley. The plan requires that Caltrans implement specific required measures based on a project's geographic location and potential species impacts. The project is within the CVMSHCP and is considered a covered activity under Section 7.2.2 and 7.3.1.1 of the CVMSHCP.

Habitat Assessment/Study Methods

A general biological assessment was conducted throughout the PIA and the surrounding area within 500 feet of the Caltrans right of way. The purpose of the survey was to assess habitats, identify potential listed species, determine the current condition of the BSA, and predict the effects of project implementation. A desktop review was conducted on October 6, 2021 and the field surveys were conducted on March 23 and 24, 2021.

Plant Communities

The dominant vegetation communities within the BSA were *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance and *Parkinsonia florida-Olneya tesota* Woodland Alliance. Furthermore, locations near I-10 have been disturbed by previous land uses and these areas generally have a

higher percentage of non-native plant species, such as common Mediterranean grass (*Schismus barbatus),* Saharan mustard (*Brassica tournefortii*), and Russian thistle (*Salsola tragus*). Descriptions of the vegetation communities are provided below:

- *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance (Creosote bush-white bursage scrub): This community is characterized by creosote bush and white bursage co-dominant in the shrub canopy and found on alluvial fans, bajadas, upland slopes, and washes. This community was present in the upland areas outside of the washes and along the berms and medians along I-10. Other species that were observed within this community included brittlebush (*Encelia farinosa*), common Mediterranean grass, golden cholla (*Cylindropuntia echinocarpa*), California fagonia (*Fagonia laevis*), and desert trumpet (*Eriogonum inflatum*).
- *Parkinsonia florida-Olneya tesota* Woodland Alliance (Blue Palo Verde-Ironwood Woodland): This community is characterized by blue pao verde or ironwood as a dominant or co-dominant plant species in the tree or tall shrub canopy. The shrub layer is intermittent or open, while the herbaceous layer is sparse with seasonal annuals. This community type is located in the washes ad low points within the median. For the project, the blue palo verde trees were dominant in the tree cover. Other plant species observed within this community included smoke tree (*Psorothamnus spinosus*), desert lavender (*condea emoryi*), honey mesquite (*Prosopis glandulosa* var. *torreyana*), and cheesebush (*Ambrosia Salsola*).
- Disturbed: The disturbed classification includes areas where the native vegetation community has been heavily influenced by human actions including grading, trash dumping, and off-road use, but not by development. Vegetation was absent or consisted primarily of non-native species, such as common Mediterranean grass and Saharan mustard.
- Developed: These areas will have infrastructure present and any vegetation in the immediate surroundings representing ornamental landscaping. Developed areas within the project biological study area includes I-10.

Habitat Connectivity

Habitat linkages provide links between large undeveloped habitat areas that have become separated by development. Species that once moved freely through natural vegetation types are now confronted with manmade barriers that fragment formerly expansive natural landscapes. Roads, railroads, canals, urbanization including those from massive new renewable energy projects, are the major obstacles to wildlife movement in much of California's deserts. The effects from manmade obstacles, such as roads and railroads, extend beyond the road itself and include disruption of animal movements, road kill, spread of exotic species, and increase in pollution, noise, light and fire in wildlife habitats. Roads, railroads, and canals can fragment large habitat areas into smaller patches that support smaller populations, which in turn are more prone to local extinction.

The statewide California Essential Connectivity Map, which broadly depicts large, relatively natural habitat blocks that support native biodiversity, known as Natural Landscape Blocks, and areas essential for ecological connectivity between them, known as Essential Connectivity Areas. The network of Natural Landscape Blocks and Essential Connectivity Areas are considered important for maintaining native species, natural communities, and ecological processes throughout California. The project site is located in the Sonoran Desert Ecoregion. The Sonoran

Desert Ecoregion contains 37 Natural Landscape Blocks and shares 12 others with adjacent ecoregions. The project limits are located within the Chocolate Mountains-Turtle Mountains/Ward Valley Essential Connectivity Area.

2.3.1.2 Environmental Consequences

Temporary

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.

Build Alternative
As mentioned earlier, two dominant vegetation communities are within the BSA: *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance and *Parkinsonia florida-Olneya tesota* Woodland Alliance. In addition, there are areas classified as Disturbed and Developed with areas influenced by grading, off-road use, trash dumping, and the I-10 roadway. The table below lists the acreages of each of the vegetation communities.

Table 2-6. Vegetation Communities and Other Areas

Vegetation Community and Other Areas	Total Acreage in Project Area	Total Acreage in Buffer Area	CDFW Sensitive Natural Community
Larrea tridentata-Ambrosia Dumosa Shrubland Alliance	4.901	4.649	No
Parkinsonia florida-Olneya tesota Woodland Alliance	12.074	3.386	No
Disturbed	2.868	0.140	N/A
Developed	5.886	0.462	N/A
Total	25.730	8.636	N/A
Source: Natural Environment Study (Minimal Impacts).			

CDFW Sensitive Natural Communities were not found within the project survey areas, as such, temporary impacts are not anticipated to occur.

Permanent
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.

Build Alternative
As mentioned earlier, two vegetation communities were observed within the boundaries of the BSA during the habitat assessment: *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance and *Parkinsonia florida-Olneya tesota* Woodland Alliance. In addition, there are two human-modified areas that would be classified as disturbed and developed.

Operation of the Build Alternatives may directly and indirectly affect vegetation communities that commonly occur throughout the study area. Direct impacts may include vegetation removal from routine maintenance of the right of way. Indirect effects associated with Build Alternative

operations may include increased occurrences of dust, fire, pollution, and trash or the introduction of invasive plants. Operational effects would be considered less than significant under CEQA and not adverse under NEPA because these common types of vegetation communities occur in abundance and support a limited amount of biological resources.

CVMSHCP

The CVMSHCP was developed to ensure the conservation and coordinated reservation of habitat for a number of state and federal listed threatened and endangered species as well as other special status species, while enabling development in the Coachella Valley. The project is within the CVMSHCP and is considered a covered activity under Section 7.2.2 and 7.3.1.1 of the CVMSHCP. Caltrans will coordinate with the Coachella Valley Conservation Commission (CVCC) to make the required mitigation fee payment for covered activities, per CVMSHCP Section 7.2.2. Caltrans, as a signatory of the CVMSHCP, is obligated through the CVMSHCP Section 6.6.2 to contribute funds to the CVCC for acquisition of conservation lands, management, and monitoring of the lands. Additionally, Caltrans will request a streamlined biological opinion and comply with the applicable avoidance and minimization measures described in the CVMSHCP under Section 4.4 for Covered Activities.

2.3.1.3 Avoidance, Minimization, and/or Mitigation Measures

NC-1 The project is within the CVMSHCP and considered a covered activity under Section 7.2.2 and 7.3.1.1 of the CVMSHCP. Caltrans will coordinate with the Coachella Valley Conservation Commission (CVCC) to make the required mitigation fee payment for covered activities per CVMSHCP Section 7.2.2. Caltrans, as a signatory of the CVMSHCP, is obligated through the CVMSHCP Section 6.6.2 to contribute funds to the CVCC for the acquisition of conservation lands, management and monitoring of the lands.

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 *Natural Environment Study (Minimal Impacts)* and the Jurisdictional Delineation prepared for the project.

The field surveys and wetland delineation were conducted on March 23 and 24 of 2021. The project area includes mostly undeveloped, natural open space. The biological study area (BSA) is within an arid region, therefore there is little natural perennial surface water. As a result of the variability of rainfall, surface hydrology is dominated by ephemeral washes, flowing only during storm events and remaining dry for most of the year. The project is located within the Colorado River Regional Water Quality Control Board (RWQCB) and occurs within the Southern Mojave watershed, Hydrological Unit #18100100, and the Red Butte Wash and Hayfield Lake subwatersheds. Jurisdictional features found within the BSA include unvegetated, ephemeral drainages that direct flow under the I-10 bridges toward Hayfield Dry Lake. The medians between the highways are low points and therefore appear to convey water during rain events. In addition, a manmade berm is situated south and runs parallel to the BSA. This berm directs surface flow toward I-10, resulting in erosional features along the southern portion of the BSA. A total of 6 features were identified within the BSA and described below:

Feature 1: An unvegetated ephemeral drainage that directs surface water flow and runoff from south to north within the western BSA. The feature crosses beneath the two bridges of Three Star Ditch. The banks of Feature 1 are lined by riprap in some portions, with riparian habitat lining other portions of the feature. Feature 1 is a natural bottom drainage that was dry at the time of the

survey, however, water in the drainage likely exists during rain events and input from the surrounding subwatershed areas. The drainage is moderately confined, with a floodplain that is likely active during larger events. The channel lacks groundwater induced baseflows that in normal situations could create hydric soil conditions, and floodplain soils were not hydric.

Feature 2: An unvegetated ephemeral drainage that directs surface water flow and runoff from south to north within the eastern BSA. The feature crosses beneath the two bridges of Determination Ditch. The banks of Feature 2 are lined by riprap in some portions, with riparian habitat lining other portions. Feature 2 is a natural bottom drainage that was dry at the time of the survey, however, water in the drainage likely exists from rain events and input from the surrounding subwatershed area. Feature 2 is confined and does not have a connected floodplain. The channel also lacks groundwater-induced baseflows that, in normal situations, could create hydric soil conditions, and floodplain soils were not hydric.

Feature 3: An unvegetated ephemeral drainage that is a tributary to Feature 2 within the eastern BSA at Determination Ditch. It directs surface water flow and runoff from south to north into Feature 2. The banks are lined by riparian habitat consisting of palo verde-ironwood woodland. The natural bottom drainage was dry at the time of the survey, however, water in the drainage likely exists from rain events and input from the surrounding watershed area. The drainage is confined and does not have a connected floodplain. The channel also lacks groundwater induced baseflows that in normal situations could create hydric soil conditions, and floodplain soils were not hydric.

Features 4, 5, 6: These features are unvegetated ephemeral drainages that directs surface water flows and runoff from south to north within the eastern BSA at Determination Ditch. These features appear to have been created due to roadside runoff and have channelized with observable bed and bank, ordinary high-water mark (OHWM), and change in sediment. There are no riparian vegetation associated with any of the drainage features.

As indicated above, all features within the BSA are best characterized as unvegetated, ephemeral drainages. As the project design has not yet been completed, an impacts analysis has not yet been developed for the project.

2.3.2.3 Environmental Consequences

Temporary

No-Build Alternative

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

Build Alternative

Direct effects on waters include the loss of vegetation from direct removal due to site preparation during construction activities including vegetation clearing, grubbing, and grading. However, the loss of resources is deemed minimal as vegetation will be restored, where applicable. Other indirect effects to waters may include sediment entering drainage areas from vegetation clearing, and invasive, non-native plants transported into areas along the roadway.

The project is located within the Colorado River watershed. Project activities may be jurisdictional and require obtaining regulatory permits including a 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW), a 401 water certification from the Regional Water Quality Control Board (RWQCB), and a 404 from the U.S. Army Corps of Engineers (USACE). A jurisdictional delineation with an impact analysis will determine if any impacts will occur to jurisdictional areas and will be completed prior to notification to regulatory agencies.

Permanent

No-Build Alternative

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

Build Alternative

A jurisdictional delineation with an impact analysis will determine if any impacts will occur to jurisdictional areas and will be completed prior to notification to the regulatory agencies.

2.3.2.4 Avoidance, Minimization, and/or Mitigation Measures

WET-1 Proposed project impacts to jurisdictional areas may be mitigated and coordinated with RWQCB, and CDFW during the permitting process. It is anticipated that a minimum 1:1 ratio may be applied to any permanent impacts of jurisdictional waters to be paid in the form of onsite restoration, permittee responsible mitigation, in-lieu fee, mitigation bank credit, land acquisition, or as agreed upon with respective resource agencies.

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 *Natural Environment Study (Minimal Impacts).*

Prior to conducting the field survey, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the BSA. Previously recorded occurrences of special-status plant species and their proximity to the BSA were determined through a query of the CDFW California Natural Diversity Data Base (CNDDB) USGS 7.5-minute quadrangles for Hayfield, and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants. In addition, official species lists for USFWS and CDFW were obtained through the Information, Planning, and Consultation (IPaC) database and CNDDB on September 30, 2021 and October 6, 2021 respectively. The field reviews for the proposed project were conducted on March 23 and 24, 2021. There were 14 listed, proposed plant species potentially occurring or known to occur in the project area. Of the 14, 9 are considered low potential to occur and the remaining 5 are considered absent, as summarized in the table below. No special status plant species were observed during the field surveys. Refer to table below for summary of potentially occurring or known to occur special status plant species.

Table 2-7. Potentially Occurring or Known to Occur Special-Status Plant Species

Common/ Scientific Name	Status[1]	General Habitat Requirements	Habitat Present/ Absent	Rationale
San Bernardino milk-vetch *Astragalus bernardinus*	F: ND, BLM_S C: ND CNPS: 1B.2 State Rank: S3 Global Rank: G3	Joshua Tree woodland, Limestone, Pinon & Juniper woodlands; Elevation: 900-2,000m	A	Absent (Project is outside the elevation range of the species).
triple-ribbed milk-vetch *Astragalus tricarinatus*	F: END C: ND CNPS: 1B.2 State Rank: S2 Global Rank: G2	Desert wash, Joshua Tree woodland, Sonoran desert scrub	HP	Low [Potential suitable habitat (washes), on site. Project is not within a canyon area.]
California ayenia *Ayenia compacta*	F: ND C: ND CNPS: 2B.3 State Rank: S3 Global Rank: G4	Sandy and gravelly washes and dry desert canyons in Mojavean & Sonoran Desert scrub, at 197 to 6,000 feet.	HP	Low [Potential suitable habitat (washes) on site.]
Emory's crucifixion-thorn *Castela emoryi*	F: ND C: ND CNPS: 2B.2 State Rank:S2S3 Global Rank:G3G4	Alpine dwarf scrub, ojavean desert scrub, pinon and juniper woodland, alkali playa. Elevation: 160-2,500 m	HP	Low (Potential suitable habitat on sites, although not identified during surveys).
Sand evening primrose *Chylismia arenaria*	F: ND C: ND CNPS: 2B.2 State Rank:S2S3 Global Rank:G4	Sonoran Desert scrub	HP	Low (Potential suitable habitat on sites).
Las Animas colubrina *Colubrina californica*	F: ND C: ND CNPS: 2B.3 State Rank:S2S3 Global Rank: G4	Narrow, steep, rocky ravines or washes in Mojavean and Sonoran Desert scrub, at 33 to 3,000 feet elevation	HP	Low [Potential suitable habitat (washes) on sites, although Project is not within a steep, narrow canyon].
California ditaxis *Ditaxis serrata var. californica*	F: ND C: ND CNPS: 3.2 State Rank:S2 Global Rank:G5T3T4	Desert wash, Sonoran Desert scrub	HP	Low (Potential suitable habitat on site).
Abrams' spurge *Euphorbia abramsiana*	F: ND C: ND CNPS: 2B.2 State Rank:S2 Global Rank:G4	Annual herb found in sandy Mojavean desert scrub and Sonoran Desert scrub at 15 to 4,300 feet elevations.	HP	Low [Suitable habitat onsite, CNDDB record from Hayfield Lake edge (dry), not observed onsite].
Orocopia Mountains spurge *Euphorbia jaegeri*	F: ND C: ND CNPS: 1B.1 State Rank:S1 Global Rank:G1	Mojavean desert scrub, rock crevices	HP	Low (Potential suitable habitat on site).

Common/ Scientific Name	Status[1]	General Habitat Requirements	Habitat Present/ Absent	Rationale
Spear-leaf matelea *Matelea parvifolia*	F: ND C: ND CNPS: 2B.3 State Rank: S3 Global Rank:G5	Dry rocky ledges and slopes in Sonoran Desert scrub	A	Absent (No suitable habitat).
Roughstalk witch grass *Panicum hirticaule* ssp. *hirticaule*	F: ND C: ND CNPS: 2B.1 State Rank:S2 Global Rank:G5T5	Sandy/silty depressions, desert dunes, Joshua Tree woodlands, Mojavean and Sonoran Desert scrub. Elevation of 197 to 4,806 feet.	A	Absent (Distinctive species, no seen during surveys, CNDDB record is from Hayfield Lake area, suitable microhabitat lacking).
Cove's cassia *Senna covesii*	F: ND C: ND CNPS: 2B.2 State Rank:S3 Global Rank:G5	Dry, sandy desert washes and slopes in Sonoran Desert scrub. Elevation of 738 to 4,250 feet.	HP	Low (Potential habitat present, species not observed on site).
Desert scaleseed *Spermolepis gigantea*	F: ND C: ND CNPS: 2B.1 State Rank:SH Global Rank:G2G3	Sonoran Desert scrub. Elevation of 1,312 feet	A	Absent (Known in California only from Hayfields Dry Lake. Not observed on site).
Mesquite neststraw *Stylocline sonorensis*	F: ND C: ND CNPS: 2A State Rank:SX Global Rank:G3G5	Open sandy drainages in Sonoran Desert scrub. Elevation of above 1,312 feet.	A	Absent [Presumed extirpated in California, common elsewhere. Known in California from only a single collection (1930) at Hayfields Dry Lake. Possibly extirpated after 1930 by development).

Source: Natural Environment Study (Minimal Impacts).

Notes:

U.S. Fish and Wildlife Service (Fed) – Federal
END – Federal listed, Endangered
THR – Federal listed,Threatened
C - Candidate listed
BLM-S – Bureau of Land Management Sensitive

California Department of Fish and Wildlife (CA) – California
END – State listed, Endangered
THR – State listed, Threatened
CT – Candidate listed, Threatened
CNPS – State listed as Rare
SSC –Species of Special Concern
WL – Watch List
ND – Not designated

California Native Plant Society (CNPS) California Rare Plant Rank

1A – Plants presumed extinct in California.
1B – Plants that are rare, and endangered in California and throughout their range.
2A – Plants presumed extirpated in California, but more common elsewhere.
2B – Plants that are rare, threatened, or endangered in California but more common elsewhere
3 – Plants about which more information is needed (a review list)
4 – Plants of limited distribution (a watch list)
CA Endemic – Taxa that occur only in California

CNPS Threat Ranks

0.1 – Seriously endangered in California
0.2 – Fairly endangered in California
0.3 – Not very endangered in California

2.3.3.3 Environmental Consequences

Temporary

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

Build Alternative
The project has the potential to directly impacts plant species by removal during construction activities. Project construction equipment and vehicles may import invasive plant materials and seeds inadvertently into the project area. Importing invasive species into the BSA could pose a risk to the native plant species due to competitive exclusion. Furthermore, the accumulation of trash and debris to the project site would reduce the quality of the soil conditions, preventing native plant species from colonizing the site. Caltrans standard best management practices (BMPs), the BMPs from the SWPPP, and 2018 Standard Specifications (or latest version) would be implemented to minimize the effects during construction.

Permanent

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

Build Alternative
9 of the 14 special status plant species have a low potential to occur and the remaining 5 plant species are absent from the project area. No long-term impacts on special-status plant species are anticipated to occur as a result of the proposed project.

2.3.3.4 Avoidance, Minimization, and/or Mitigation Measures

In addition to implementation of Caltrans Standard BMPs, the BMPs in the SWPPP, and the 2018 Standard Specifications (or latest version), the following will be implemented to minimize effects to plant species.

BIO-1 **Equipment Staging, Storing, & Borrow Sites.** All staging, storing, and borrow sites require the approval of the Caltrans biologist.

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 *Natural Environment Study (Minimal Impacts)* prepared for the project.

Habitat Assessment

The BSA encompasses the project footprint, which includes the project impact area and habitats in the immediate project vicinity that may be affected by the project within a 500-foot buffer. A total of five vertebrates were directly observed on the project site. These included four birds and one mammal. Many are common, year-round residents of the Mojave Desert. Representative wildlife species included red-tailed hawk, American crow, raven, house sparrow, and black-tailed jackrabbit. Species occurrences were identified through various databases, which are summarized in the following paragraphs and table below.

Avian and Migratory Birds

Bendire's Thrasher: A secretive bird of open desert habitats from near sea level up to 6,000 feet elevation. It forages on the ground by probing into the earth or overturning vegetation and rocks with its bill. Most nests are set in shrubs, trees, or cacti, especially cholla, mesquite, juniper, yucca, and Joshua Tree, about 5 feet off the ground. Habitat is present within the project area with a moderate potential for occurrence.

Prairie Falcon: This species occur in wide-open habitats of the west, including sagebrush, desert, prairie, agricultural fields, and alpine meadows up to 11,000 feet in elevation. They nest in natural crevices including ledges of sheer rocky cliffs. The prairie falcon has habitat present within the project area and considered a low potential for occurrence.

Bats

Of the 25 species of bats that reside in California, 16 species have been known to use caves/mines, 16 species have been known to use bridges, and 14 species have been known to use cliffs and rocks for roosting, with many species overlapping. Roosting habitat may also include hollow trees, loose slabs of bark, bridges, culverts, fissures of cliffs, and rock outcroppings. Several different roosting patterns may occur, including day, night, maternity, migratory, and hibernating roots, indicating the potential for year-round roosting bat habitat. No bats or signs of bats were observed during field surveys conducted for the project. Marginal foraging habitat is present within the desert wash corridors. Bridge day roosting habitat has a very low potential of occurrence based on the design of the bridges. All the bridge structures are reinforced concrete, continuous slab with no available hinges, joints, or weep holes. However, night roosting signs have been observed on similar bridge type structures and has the potential to occur on pier walls and column bents.

2.3.4.3 Environmental Consequences

Temporary

No-Build Alternative

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

Build Alternative

Special-Status Birds Species

The BSA contains suitable habitat for avian species and migratory birds. Bird species have suitable habitat near the various wash areas in the form of desert wash and desert scrub. CNDDB occurrences have been recorded north of the project near Joshua Tree National Park for Bendire's thrasher and prairie falcon.

Construction activities for the project will be limited to the bridge locations within current Caltrans right of way, which includes within the streambeds of these structures. The project has the potential to generate noise and vibration during project activities, and construction activities may occur at night. Bird species may nest, forage, or use these areas as corridors while migrating, therefore, measures **BIO-2** and **BIO-3** will be implemented. With the implementation of these avoidance and minimization measures, the project will not impact these species.

Special-Status Mammal Species

Bats

Marginal bat foraging habitat is present within the desert wash corridors. Bridge day roosting habitat has a very low potential based on the design as all bridge structures are a reinforced concrete continuous slab with no available hinges, joints, or weep holes. However, night roosting signs have been observed on similar bridge structures and has the potential to occur on site via

Table 2-8. Listed, Proposed Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Area

Common/Scientific Name	Status[a]	General Habitat Requirements	Specific Habitat Present/ Absent	Rationale
southwestern willow flycatcher *Empidonax traillii extimus*	F: END C: END	Riparian forest, riparian scrub, riparian woodland	A	Absent (Dense riparian habitat lacking).
Monarch butterfly *Danaus plexippus*	F: C C: ND	Fall migration: nectar-producing plants. Springs migration: larval food plants and nectar plants. Wintering habitat typically provides access to streams, plenty of sunlight (enabling body temps that allow flight), and appropriate roosting vegetation, larval host plants, and relatively free of predators.	HP	Low (Caltrans HQ Habitat Suitability does not map this extent of the district; however, the Western Monarch Milkweed Mapper has documented a recent occurrence (2018) of suitable plant species in the Orocopia Mountains. Biological surveys incidentally observed milkweed at Three Star Ditch bridge).
Prairie falcon *Falco mexicanus*	F: ND, BCC C: ND, WL	Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, Valley and Foothill grassland.	HP	Low (Foraging habitat present).
desert tortoise *Gopherus agassizii*	F: THR C: THR	Joshua Tree woodland, Mojavean desert scrub, Sonoran Desert scrub.	HP, CH	Moderate (Suitable habitat is within the project area based on vegetation mapping. Bridges may act as a wildlife corridor).
bat ssp	F: ND, BLM_S C: SSC	Roosting habitat includes hollow trees, loose slabs of bark, bridges, culverts, fissures of cliffs, and rock outcrop. Riparian areas and their associated insect fauna may provide foraging habitat for a large number of bat species.	HP	Low (Marginal foraging habitat is present within the desert wash corridors. Bridge day roosting habitat has a very low potential based on the design – all bridge structures are a reinforced concrete continuous slab with no available hinges, joints, or weep holes; however, potential night roosting is present via pier walls and column bents. Bats nor bat signs were not observed on site during any of the surveys).

Common/Scientific Name	Status[a]	General Habitat Requirements	Specific Habitat Present/ Absent	Rationale
desert bighorn sheep *Ovis canadensis nelson*	F: ND, BLM_S C: ND, FP	Alpine, Alpine dwarf scrub, Chaparral, Chenopod scrub, Great Basin scrub, Mojavean desert scrub, Montane dwarf scrub, Pinon and Juniper woodlands, Riparian woodland, Sonoran Desert scrub.	A	Absent (Known occurrences are isolated to mountain ranges in the north (Eagle Mountains) and south (Orocopia Mountains). Suitable rocky habitat lacking. Suitable crossing structures preferable to bighorn sheep for connectivity are not present in the BSA).
Mountain lion *Puma concolor*	F: ND C: CT	Large areas of relatively undisturbed habitat with adequate prey abundance, and habitat connectivity to allow for successful dispersal and gene flow. Large home ranges that include heterogenous habitats including riparian, chaparral, oak woodlands, coniferous forests, grasslands, and occasionally rocky desert.	HP	Low (Project is within Chocolate Mountains-Turtle Mountains/Ward Valley California essential connectivity area. Project is within Eastern Peninsular Range population, which is included in the candidate listing. Potential habitat connectivity is also present).
Bendire's thrasher *Toxostoma bendirei*	F: ND, BCC, BLM_S C: SSC	Joshua Tree woodland, Mojavean desert scrub	HP	Moderate (Potential suitable habitat on site. CNDDB occurrences nearby).
least Bell's vireo *Vireobellii pusillus*	F: END C: END	Riparian scrub and riparian woodland in the vicinity of water in dry river bottoms.	HP	Low (Dense riparian habitat lacking).

Source: Natural Environment Study (Minimal Impacts).

Notes:

A = Absent, HP = Habitat Present, CH = Critical Habitat

U.S. Fish and Wildlife Service (Fed) – Federal

END – Federal listed, Endangered

THR – Federal listed, Threatened

C - Candidate listed

BCC – Birds of Conservation Concern

ND – not designated

BLM-S – Bureau of Land Management Sensitive

California Department of Fish and Wildlife (CA) – California

END – State listed, Endangered

THR – State listed, Threatened

CT – Candidate listed, Threatened

CNPS – State listed as Rare

FP – Fully Protected

SSC –Species of Special Concern

WL – Watch List

ND – not designated

pier walls and column bents. Project activities to replace the bridge rails may utilize catchment methods to ensure that debris does not contaminate the wash, which may impact bat species. Therefore, **BIO-4** will be implemented. Bats including bat signs were not observed on site during any of the surveys conducted for the project.

Due to the poor quality of roosting and foraging habitat, no further surveys were warranted. However, impacts to bat species could include temporary, indirect disturbance such as noise, dust, night lighting, and human encroachment from construction activities. Night construction activities, including the use of temporary, artificial lighting could deter individuals from typical flight paths in the project vicinity. Avoidance and minimization measures would be implemented in this regard.

Permanent

No-Build Alternative

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

Build Alternative

Special-Status Birds Species

To ensure that debris does not contaminate the wash, which may result in impacts to bird species, catchment methods may be utilized to replace the bridge rails (refer to measure **BIO-4).** No other permanent impacts are anticipated to occur as a result of project implementation.

Special-Status Mammal Species

Bats

Permanent indirect issues associated with human encroachment, such as the introduction of non-native species and trash, would permanently contribute to the degradation of foraging habitat such as riparian/riverine vegetation in the project vicinity. Implementation of avoidance and minimization measures would be required.

2.3.4.4 Avoidance, Minimization, and/or Mitigation Measures

In addition to the below measures, Caltrans Standard Best Management Practices (BMPs), the BMPs in the anticipated stormwater pollution prevention plan (SWPPP), and the 2018 Standard Specifications (or latest version) would be implemented to minimize effects during construction.

Special-Status Bird Species

BIO-2 **Pre-construction Nesting Bird Survey.** If project activities cannot avoid the nesting season, generally regarded as February 1 to September 30, then pre-construction nesting bird surveys must be conducted 3 days prior to construction by a qualified biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer may be established and monitored by the qualified biologist.

BIO-3 **Temporary Artificial Lighting Restrictions.** Artificial lighting must be directed at the job site to minimize light spillover onto the desert wash and bridge structure, if project activities occur at night.

BIO-4 **Catchment Methods.** Catchment methods to contain debris from the bridge deck, including any netting material, must be approved by the Caltrans biologist.

Special-Status Mammal Species

In addition to measures **BIO-3** and **BIO-4**, the Caltrans Standard BMPs, the BMPs in the SWPPP, and 2018 Standard Specifications (or latest version) will be implemented to minimize effects during construction.

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 *Natural Environment Study (Minimal Impacts)* prepared for the project.

An official USFWS species list was generated from the IPaC database on March 4, 2022 and CDFW species list from CNDDB on October 6, 2021. According to the IPaC species list, a total of 5 federally listed threatened or endangered plant or animal species have the potential to occur within the vicinity of the BSA.

Critical Habitat

Critical habitat refers to specific areas within the geographical area of a species at the time it is listed, including those physical or biological features that are essential to survival and eventual recovery of a species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals of the species are present or not.

All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit that may affect a federally listed species or its designated critical habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the federally listed species or adversely modify or destroy its designated critical habitat. The designation of critical habitat does not affect private landowners, unless a project they are proposing uses federal funds or requires federal authorization or permits (e.g., funding from FHWA or a CWA Section 404 permit from the USACE). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The BSA is within federally designated critical habitat for desert tortoise. Therefore, consultation with USFWS would be required for the loss or adverse modification of critical habitat to desert tortoise.

2.3.5.3 Environmental Consequences

Temporary

No-Build Alternative

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

Build Alternative

As previously mentioned, a USFWS species list was requested and received in September 2021. Caltrans has determined that, in accordance with Section 7 of the Endangered Species Act, and as summarized in the table below, the project "may affect, is likely to adversely affect" the federally threatened desert tortoise and will have "no effect" findings to least Bell's vireo, southwestern willow flycatcher, Monarch butterfly, triple-ribbed milk-vetch, or designated desert tortoise critical habitat. Caltrans will submit a request for a Streamlined BO under CVMSHCP

for incidental take of desert tortoise. Furthermore, this project is located outside of NOAA Fisheries jurisdiction, therefore a NOAA Fisheries species list was not required and no effects to NOAA Fisheries species are anticipated.

The project site is located within the geographic range of desert tortoise and contains suitable habitat in the form of Sonoran desert scrub, which includes the natural community *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance. The database records searches identified recent records of desert tortoise approximately 11.5 miles to the west, 12 miles to the north, and 6.5 miles to the east. CNDDB recorded occurrences were 3 miles northwest of the project site and recorded as a polygon throughout Chuckwalla Valley. No desert tortoise signs, including live tortoise, scat, or burrows, were observed during the field surveys conducted for the project. Despite the lack of tortoise sign, suitable habitat with native desert scrub communities, flat terrain, and sandy soils were observed throughout the project area. However, this habitat has been affected by previous highway maintenance activities and routinely used by the public. Due to the presence of I-10 east and westbound lanes along the edges of the project area and the continuous highway activity and maintenance associated with I-10, habitat within the project boundaries was generally considered to be degraded, and not within ideal habitat conditions. Project construction activities would be constrained to the roadway shoulder and immediate area, including the median and wash area to perform project construction activities. Therefore, the likelihood that desert tortoise habitat would be directly affected by the project is minimal.

Caltrans biologists have determined that the project will not reduce, alter, or modify the overall population or lead towards habitat degradation of the desert tortoise. Since desert tortoises are known in the area, and may transverse the project area, avoidance and minimization measures will be implemented per Section 4.4 of the CVMSHCP. Caltrans has determined a “no effect” to designated desert tortoise critical habitat since the project impact areas are confined to the existing disturbed Caltrans right of way. Caltrans has further determined that that project impacts are minimal, however, given the project is located adjacent to suitable habitat and no physical barriers are present to constrict movement of the desert tortoise, Caltrans has determined that the project “may affect, is likely to adversely affect” the desert tortoise. Refer to effects table below.

Caltrans is a participant in the Monarch Butterfly Nationwide Candidate Conservation Agreement with Assurance with integrated Candidate Conservation Agreement (CCAA/CCA). The CCAA/CCA is a formal, voluntary agreement under which participating landowners or easement holders agree to undertake management activities on enrolled lands to conserve species that are a) proposed for listing under the Endangered Species Act (ESA), b) candidates for listing, or c) that may become candidates, and when the proposed activities would enhance the survival of the species. The CCAA/CCA provides participants regulatory assurances that additional conservation measures will not be required if the Monarch butterfly is protected under the ESA. The project has the potential to directly and indirectly impact the Monarch butterfly species through project activities including vegetation removal. Project equipment and vehicles may also import invasive plant materials and seed into the project area. Importing invasive species into the BSA could pose a risk to the native plant species due to competitive exclusion. Furthermore, potentially adding more trash and debris to the project site would reduce the quality of the soil conditions, preventing native plant species from colonizing the site. The project is within an enrolled highway per the CCAA/CCA, therefore, Caltrans is required to adhere to the

conservation measures listed in the CCAA/CCA. With implementation of avoidance and minimization measures, the project would be compliant with the CCAA/CCA.

Table 2-9, FESA Effects Findings

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat (if applicable)
Plants				
Triple-ribbed milk-vetch	*Astragalus tricarinatus*	Endangered	No Effect	N/A
Birds				
Southwestern willow flycatcher	*Empidonax traillii extimus*	Endangered	No Effect	N/A
Least Bell's vireo	*Vireobellii pusilus*	Endangered	No Effect	N/A
Amphibians				
Desert tortoise	*Gopherus agassizii*	Threatened	May Affect, Likely to Adversely Affect	No Effect
Insects				
Monarch butterfly	*Danaus plexippus*	Candidate Listed	No Effect	N/A
Source: Natural Environment Study (Minimal Impacts)				

The project will have "no take" of the California state listed or candidate species including mountain lion, least Bell's vireo, southwestern willow flycatcher, or desert tortoise, with the implementation of avoidance and minimization measures.

Permanent

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 no project would be implemented. There would be no change from existing conditions.

Build Alternative

The proposed project would have no permanent effect on any federally listed species identified by the USFWS species list, CNDDB, or CNPS. Therefore, no additional mitigation or consultation with USFWS, pursuant to the FESA, would be required.

2.3.5.4 Avoidance, Minimization, and/or Mitigation Measures

Implementation of **BIO-2**, **BIO-3**, **BIO-4**, along with Caltrans Standard BMPs, the BMPs in the SWPPP, and 2018 Standard Specifications (or latest version) would be implemented to minimize the effects during construction.

BIO-5 **Monarch Butterfly Host Plant Preconstruction Clearance Survey, Flagging, and Fencing.** No more than 3 days prior to project activities, a qualified biologist must perform a preconstruction survey for Monarch butterfly host plants. Should any host plants be found, the Resident Engineer and Caltrans biologist must be contacted, and host plants must be flagged by the qualified 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 (ESA) temporary fencing.

BIO-6 **Existing Monarch Butterfly Host Plants**. Previously identified host plants located at Three Star Ditch, white stemmed milkweed (Asclepias albicans), must be protected in place, as feasible.

BIO-7 **Plant Seed Mix.** Seed mixes must contain a diversity of native pollinator plants species including milkweed.

BIO-8 **Species Avoidance.** If during project activities, a desert tortoise is discovered within the project site, all construction activities must stop within 100 feet and the Caltrans biologist and Resident Engineer must be notified. Coordination with CDFW and USFWS may be required prior to restarting activities.

BIO-9 **Worker Environmental Awareness Program (WEAP).** A qualified Caltrans-approved biologist must present a biological resource information program/WEAP for desert tortoise prior to project activities to all personnel that will be present within the project limits for longer than 30 minutes at any given time.

BIO-10 **Equipment Flagging.** Project personnel must attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for desert tortoise before operating equipment at any time.

BIO-11 **Trash/Predation.** Caltrans must implement measures to reduce the attractiveness of job sites to desert tortoise and other subsidized predators by controlling trash and educating workers.

BIO-12 **Rock Slope Protection.** To prevent trapping of desert tortoise, interstitial spaces within rock slope protection must be filled with a substrate to prevent large crevices.

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 *Natural Environment Study (Minimal Impacts*) prepared for the project.

Noxious weed species include species designated as federal noxious weeds by USDA, species listed by the California Department of Food and Agriculture, and other exotic pest plants designated by the California Invasive Plant Council. Invasive plant species were observed throughout the BSA. Some of the more commonly occurring exotic plants occurring within the BSA include common Mediterranean grass, Saharan mustard, and Russian thistle.

2.3.6.3 Environmental Consequences

Temporary

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.

Build Alternative
Since invasive plant species were observed in the project area, by remaining on paved and already disturbed areas during construction, the project will not encourage the spread of invasive species. The implementation of Caltrans BMPs and avoidance and minimization measures will prevent the introduction and further spread of any invasive species into the BSA. As such, the project would not contribute to the propagation of invasive plant species.

Permanent

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.

Build Alternative

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.

2.3.6.4 Avoidance, Minimization, and/or Mitigation Measures

In addition to **BIO-1**, and **BIO-4**, the Caltrans Standard BMPs, the BMPs in the SWPPP, and 2018 Standard Specifications (or latest version) will be implemented to minimize effects during construction.

Chapter 3 CEQA Evaluation

3.1 Determining Significance under CEQA

The proposed project is a joint project by the California Department of Transportation (Department), 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 Section 327 (23 USC 327) and the Memorandum of Understanding dated May 27, 2022, 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 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 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), c), d) No Impact.

As discussed in Chapter 2, the project is located in a rural area surrounded by desert lands. Within the project area, I-10 is not designated as an eligible or officially designated State Scenic Highway. Furthermore, The project would result in replacement of the existing RSP for the bridges at Three Star Ditch and Determination Ditch, and would not result in noticeable visual changes to those that travel along I-10.

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), d), e) No Impact.

Based on the California Department of Conservation's Farmland Mapping and Monitoring Program, no farmlands mapped as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance are located in the project area. The project site is not zoned for agricultural use or a Williamson Act contract. The project would also not result in the loss or conversion of forest lands to non-forest uses.

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), c), d) No Impact.

The project site is located within the northeastern portion of the Salton Sea Air Basin, which includes the Coachella Valley portion of Riverside County and all of Imperial County. Air quality regulations in the Salton Sea Air Basin are managed by the South Coast Air Quality Management District. The project consists of restoring scour protection at the bridges at Three Star Ditch and Determination Ditch. The project is not a capacity-increasing transportation project. The project would not conflict with the AQMP, violate any air quality standards, or expose sensitive receptors to substantial pollutant concentrations.

b) Less than Significant Impact.

Temporary construction activities could generate fugitive dust from the operation of construction vehicles and equipment. The project will comply with construction standards adopted by the South Coast Air Quality Management District as well as Caltrans standardized procedures for minimizing air pollutants during construction. Impacts would be less than significant.

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?	☐	☐	☒	☐
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) Less Than Significant Impact.

The project site consists of the I-10 roadway, undeveloped land, and open space. Vegetation communities within BSA are comprised of ruderal species, creosote bush-white bursage scrub, and blue palo verde-ironwood woodland, which provides suitable habitat for special status species. The project would implement avoidance and minimization measures in order to reduce impacts to those species and their habitat as well as adhering to Caltrans Standard BMPs and 2018 Standard Specifications (or latest version).

The BSA contains suitable habitat for avian species and migratory birds. Bird species have suitable habitat near the various wash and scrub areas. The project has the potential to generate noise and vibration during project construction activities. Bird species may nest, forage, or use the project areas as corridors while migrating. With implementation of avoidance and minimization measures, the project will not impact avian and migratory bird species.

The project is not within suitable habitat for mountain lion, however, may be within the potential movement corridors for this species. Mountain lions are known to follow prey across landscapes, but due to the sediment loading at the project location, larger prey may not utilize these areas due to low clearance and limited line of sight. As such, these locations may not be utilized by mountain lions.

Although no desert tortoise, or its signs, were observed within the BSA, suitable habitat with native desert scrub communities, flat terrain and sandy soils were observed throughout the project area. Construction activities would be contained within the roadway shoulder and immediate area, including the median and wash area. As such, the likelihood that desert tortoise habitat would be directly affected by the project is minimal. The project would not reduce, alter, or modify the overall population of desert tortoise or lead to habitat degradation. Avoidance and minimization measure, along with compliance with CVMSHCP, would be implemented as the desert tortoises are known in the area and may traverse the project area.

The project has the potential to directly and indirectly impact Monarch butterfly through construction activities including vegetation removal. Equipment and vehicles may also import invasive plant materials and seed into the project area. Importing of invasive species could pose a risk to the native plant species. Trash and debris would also reduce the quality of the soil conditions preventing native plant species from colonizing the site. As mentioned in Chapter 2, the project is within an enrolled highway per the Monarch Butterfly Nationwide Candidate Conservation Agreement with Assurance with integrated Candidate Conservation Agreement (CCAA/CCA), therefore Caltrans is required to adhere to the conservation measures listed in the Agreement.

Impacts to bat species could include temporary indirect disturbance from construction activities that could deter bats from typical flight paths. Other indirect impacts associate with human encroachment, including the introduction of non-native species and trash, would contribute to the degradation of bat foraging habitat. To minimize these effects during construction, the project will implement avoidance and minimization measures, as discussed in Chapter 2.

b) Less Than Significant Impact.

The dominant vegetation communities within the BSA were *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance and *Parkinsonia florida-Olneya tesota* Woodland Alliance. In addition, locations near I-10 have been disturbed by previous land uses and have a higher percentage of non-native plant species. Sensitive natural communities were not found within the project survey areas.

c) Less Than Significant with Mitigation Incorporated.

Direct effects on waters include the loss of vegetation from direct removal due to site preparation activities including vegetation clearing, grubbing, and grading. However, the loss of resources is deemed minimal as vegetation would be restored, where applicable. Other indirect effects to waters may include sediment entering drainage areas from vegetation clearing and invasive, non-native plants transported into areas along the roadway. Proposed project impacts to jurisdictional areas may be mitigated and coordinated with USACE, RWQCB, and CDFW during the

permitting process. It is anticipated that a minimum 1:1 ratio may be applied to any permanent impacts of jurisdictional waters to be paid in the form of onsite restoration, permittee responsible mitigation, in-lieu fee, mitigation bank credit, land acquisition, or as agreed upon with respective resource agencies (measure **WET-1**).

d) No Impact.

The project is located in the Sonoran Desert Ecoregion. This ecoregion contains 37 Natural Landscape Block and share 12 others with adjacent ecoregions. The project limits are within the Chocolate Mountains-Turtle Mountains/Ward Valley essential connectivity area.

The proposed project would have no impact on 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) No Impact.

The project would not conflict with any local policies or ordinances protecting biological resources, as there are no policies or ordinances that apply to the project area. As such, no impacts are anticipated in this regard.

f) Less Than Significant Impact.

The project is within the CVMSHCP and is considered a covered activity under Section 7.2.2 and 7.3.1 of the CVMSHCP. Caltrans will coordinate with the Coachella Valley Conservation Commission (CVCC) to make the required mitigation fee payment for covered activities per CVMSHCP Section 7.2.2. Caltrans, as a signatory of the CVMSHCP, is obligated through CVMHSCP Section 6.6.2 to contribute funds to the CVCC for acquisition of conservation lands, management and monitoring of these lands.

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), b), c) No Impact.

There are no associated features belonging to significant built environment or cultural resources that exist within or adjacent to the project limits. The project will occur within an existing, well-utilized and maintained transportation corridor. Additionally, the majority of the ground disturbing activities will take place on existing bridges and in high velocity wash areas. These areas experience intermittent flooding and erosion episodes, all of which are not conducive to archaeological preservation. Therefore, the likelihood of encountering intact subsurface cultural materials during project related activities is considered to be low.

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 work stop within 60 feet of the 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 Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 260-5178 and Gary Jones, DNAC: (909) 261-8157. Further provisions of PRC 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) No Impact.

The project would replace the existing RSP for the bridges at Three Star Ditch and Determination Ditch on I-10. The one-time energy expenditure involved in constructing the project, considered direct energy, would be minimal. The project would not involve additional traffic lanes or roadway expansions that could lead to energy consumption and there are no new or replacement roadway lighting or other features requiring electricity that would result in ongoing and permanent sources of direct energy consumption. The project would not result in excessive use of indirect energy, including maintenance activities that would result in long-term indirect energy consumption by equipment for maintaining the RSP at either Three Star Ditch or Determination Ditch.

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?	☐	☐	☐	☒
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), b) No Impact.

The proposed project site is located in the seismically active Southern California region. However, construction and operation of the project have no potential to a rupture a known earthquake fault, cause strong seismic ground shaking, or cause seismic-related ground failure, including liquefaction. However, 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. Implementation of erosion control measures, as required by Caltrans, and adherence to all requirements set forth in the NPDES permit required for construction activities would address any potential construction-related erosion and siltation impacts. 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.

c) Less Than Significant Impact.

The project site is located in an area with no groundwater data with moderate susceptible sediments for liquefaction susceptibility according to the County of Riverside General Plan, Eastern Coachella Valley Area Plan, Seismic Hazards map. The project would follow the Department's latest design requirements to minimize any potential effects related to liquefaction and seismically induced settlement.

d) No Impact.

The project would restore scour protection at the bridges at Three Star Ditch and Determination Ditch to meet current standards, maintain bridge stability, and functionality, and protect the bridge from detrimental sediment build up near the abutment. The project would not be located on expansive soils that would create substantial direct or indirect risks to life or property.

e) No Impact.

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) No Impact

Due to the nature of the project, which involves restoring scour protection at Three Star Ditch and Determination Ditch, impacts to paleontological resources are not anticipated to occur.

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.

Please refer to Section 3.3 for extensive discussion on Climate Change and avoidance, minimization and/or mitigation measures.

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?	☐	☐	☒	☐
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) Less Than Significant Impact.

Implementation of the proposed project is not expected to create a significant hazard to the public or environment and the project site is not on a list of hazardous materials sites. Based on the analysis conducted for the project, ADL may be present in the near surface at certain locations within the project construction areas at very low concentrations. None of the soil samples collected reported total lead above ADL threshold limits. None of the soil samples were characterized as being California or Resource Conservation and Recovery Act (RCRA) hazardous wastes. ACMs were also not detected in any of the samples analyzed at the project area bridges. None of the paint chip samples reported a concentration above California thresholds, and none of the samples met the definition of LBP. However, to ensure that potential effects involving hazardous materials/waste during construction are avoided or reduced, measure HAZ-1 will be implemented.

c), d) No Impact.

There are no schools within a one-quarter mile radius of the project site. The project site is also not included on a list of hazardous materials sites. As the project is located in an area of vacant, open space, impacts in this regard are not anticipated.

e) No Impact.

The Chiriaco Summit Airport, operated by the County of Riverside, is located approximately 1 mile northwest of Three Star Ditch. As the project involves restoring scour protection at Three Star Ditch and Determination Ditch, in an area surrounded by vacant, open space, the proposed project would not result in any safety hazard or excessive noise for people residing or working in the project area.

f) No Impact.

The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project will be constructed by keeping both lanes of I-10 open to traffic in each direction at all times. Emergency vehicles will have access to both directions on I-10 through the project area. A TMP will be prepared, which will include, as necessary, traffic control, Construction Zone Enhanced Enforcement Program (COZEEP), and a public awareness campaign.

g) No Impact.

According to the Cal Fire Local Responsibility Area (LRA) Fire Hazard Severity Zone map for eastern Riverside County, the project is not located in a LRA Very High or High Fire Hazard Severity Zone.

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), e) No Impact.

During the construction phase, the total Disturbed Soil Area (DSA) for the project is approximately 4.7 acres, which includes the excavation for replacing the existing RSP. The project would not add any New Impervious Surface (NIS) or Net New Impervious (NNI) areas. As such, treatment BMPs are not required for this project. Furthermore, the receiving waters would not be impacted by this project. The project does not discharge to Areas of Special Biological Significance (ASBS) or a TMDL watershed. There are no drinking water reservoirs or recharge facilities within the project limits. The project would require a SWPPP as it will disturb more than 1 acre of soil. The SWPPP will include the development of a Construction Site Monitoring Program (CSMP) that describes procedures and methods related to the visual, sampling, and analysis plans for non-visible pollutants.

b) No Impact.

Groundwater recharge facilities are not present within the project limits and there would be no change in channel lining; therefore, the proposed project would not interfere with groundwater recharge.

c i), c ii), c iii) No Impact.

The proposed project would not cause a change to sedimentation in receiving water bodies within the proposed project area because the proposed project would result in a minor increase in runoff compared to the entire hydrologic area. A Storm Water Pollution Prevention Plan would be prepared prior to construction to identify BMPs to be implemented during construction activities, as stated in the measures listed in Section 2.2.2.4. As a result, the proposed project would not result in substantial erosion or siltation on or off site. No impacts are anticipated.

c iv), d) No Impact.

The proposed project would restore scour protection at Three Star Ditch and Determination Ditch, along I-10, to meet current standards, maintain bridge stability and functionality, and protect the bridges from detrimental sediment buildup near the abutment. The project would replace the eroded areas of the existing RSP with new RSP and filter-fabric in places near the bridge abutment footings. As such, the project would not impede or redirect flood flows. Based on the inland location of the project site and the nature of project improvements, the project would not risk release of pollutants due to inundation.

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.

The proposed project would not physically divide an established community, as I-10 exists within this area, and the project would not result in permanent acquisitions. There are no established communities within or adjacent to the project site. Temporary construction easements (TCEs) would be required with the Bureau of Land Management (BLM) managed land to provide the temporary dirt construction access road and staging areas at Three Star Ditch. Because these impacts would be temporary and the portions of the parcels required during construction would be restored and returned to BLM managed land following construction, no impacts would occur. Furthermore, the project would not conflict with any land use plan, policy, or regulation in the area. The proposed project is a Covered Activity under the CVMSHCP and would not conflict with the provisions of the CVMSHCP.

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?	☐	☐	☐	☒
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.

According to the County of Riverside General Plan Eastern Coachella Valley Area Plan, Land Use Plan map, the proposed project is not located in an area designated as containing mineral resources. Therefore, the proposed project would not result in the loss of available mineral resources of value to the region and residents of the state. As such, the proposed project is expected to result in no impacts.

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) Less Than Significant Impact.

The project is located in an area of vacant, open space with no sensitive receptors within or adjacent to the project site. Construction noise would be short-term, intermittent, and also overshadowed by traffic noise from I-10. Construction noise control shall conform to the provisions in Section 14-8.02 "Noise Control" of the Department's 2018 Standard Specifications, "Noise Control," of the Standard Special Provisions. Furthermore, implementation of avoidance and minimization measures would further minimize temporary noise impacts from construction.

c) No Impact.

The Chiriaco Summit Airport, operated by the County of Riverside, is located approximately 1 mile northwest of Three Star Ditch. No habitable structures are proposed as part of the project; therefore, no noise impacts related to air traffic would occur. The project would not expose people residing or working in the project area to excessive noise levels.

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) No Impact.

The proposed project is located in an area of vacant, open space with no development within or adjacent to the project site. The project would restore scour protection at Three Star Ditch and Determination Ditch to meet current standards. The proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly; therefore, no impacts are anticipated.

b) No Impact.

The proposed project would not displace any existing developments, including housing, or people, and also would not necessitate the construction of replacement housing elsewhere. As such, there would be no impacts in this regard.

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.

The nearest fire stations to the project site are the Riverside County Fire Department Station 49 (43880 Tamarisk Drive, Desert Center) located approximately 17 miles to the east, the Riverside County Fire Department Station 41 (99065 Corvina Drive, Mecca) located approximately 20 miles southwest, and the Riverside County Fire Department Station 87 (42900 Golf Center Parkway, Indio) located approximately 30 miles to the west of the project site. The City of Indio Police Department and the California Highway Patrol provide police and emergency services to the project area. The nearest parks to the project site are the Joshua Tree National Park and the Orocopia Mountains Wilderness.

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. The project will be constructed by keeping both lanes open to traffic in each direction at all times. Access to the Joshua Tree National Park and Orocopia Mountains Wilderness would not be affected by the project. A TMP would be implemented and include such programs as Traffic Control, Construction Zone Enhance Enforcement Program (COZEEP), and Public Awareness Campaign, as applicable.

a) Other Public Facilities. No Impact.

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?	☐	☐	☐	☒
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.

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), b, c), d) No Impact.

The project involves restoring scour protection at the bridges at Three Star Ditch and Determination Ditch to meet current standards. The project would not conflict with programs, plans, ordinances, or policies addressing the circulation system along I-10. The project would not increase capacity of I-10 or generate new vehicle trips that would result in GHG emissions, and would not alter or introduce new roadway geometry features. Furthermore, the project will be constructed by keeping both lanes open to traffic in each direction at all times and as such, would not result in inadequate access for emergency vehicles.

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.

The following Native American Tribes were contacted for the project:

- Twenty-Nine Palms Band of Mission Indians. Anthony Madrigal, Tribal Historic Preservation Officer (THPO). An AB-52 initiation letter was sent, 01/07/20. Response was received on 02/02/21. The THPO is not aware of any sites associated with 29 Palms in the project limits and recommended monitoring and requests to be notified of all updates and/or changes to the project. Caltrans noted the monitoring recommendation response and will notify the tribe should the project change. No further comments have been received.
- Agua Caliente Band of Cahuilla Indians. Patricia Garcia-Plotkin, Director. An AB-52 initiation letter was sent on 01/07/20. No response has been received.
- Soboba Band of Luiseno Indians. Joseph Ontiveros, THPO. An AB-52 initiation letter was sent on 01/07/20. No response has been received.
- Cabazon Band of Mission Indians. Doug Welmas, Chairperson. An AB-52 initiation letter was sent on 01/07/20. No response has been received.
- Augustine Band of Cahuilla Indians. Amanda Vance, Chairperson. An AB-52 initiation letter was sent on 01/07/20. No response has been received.

The cultural review resulted in the identification of three cultural resources within the study area, which consisted of each bridge location and a quarter mile radius. These cultural resources include two Historic Built Environment Resources: P-33-17766-Earthen Dikes and P-33-008706-Highway 60/70, of which lie outside the project APE. The APE is located within the overall boundaries of one resource: CHL-985-DTC/C-AMA-Desert Training Center. However, there are no associated features, artifacts or contributing elements of the DTC/AMA in the

project APE or within Caltrans right of way. Therefore, there are no Historic Properties within the APE and No Historical Resources present. The current project APE has limited potential to encounter significant subsurface cultural deposits. The APE has experienced a heavy amount of disturbance by way of roadway expansion, maintenance and signage, and construction of public transport facilities. Previous construction and other natural processes within the APE have resulted in the incorporation of surface cultural manifestations into subsurface deposits, creating a loss in archaeological integrity and significance.

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) Less Than Significant Impact.

There are no visible utilities or utility facilities present within the project limits. There are also no landscaped areas and no landscaped irrigation facilities within the project limits. Due to the nature of the project, which involves restoring scour protection at the bridges at Three Star Ditch and Determination Ditch, no relocation or construction of new utilities is anticipated. However, there is a possibility of unknown underground utilities below the soft bottom of the washes. If construction will affect these areas, potholing would occur to locate and identify any utilities, as necessary.

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

As the project involves restoring scour protection at Three Star Ditch and Determination Ditch, the project would not require water supplies to serve future development or result in the need for additional capacity for wastewater treatment. The project would result in placement and disposal of rock. Caltrans standard measures will be taken to ensure proper disposing of construction materials, including rocks, are done in an environmentally sensitive manner. It is Caltrans policy to recycle materials whenever possible. The project would be in compliance with all federal, state, and local solid waste statutes and regulations, therefore, impacts are not anticipated in this regard.

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) No Impact.

The project would be constructed by keeping both lanes open to traffic in each direction at all times along I-10. A TMP would be developed and incorporate potential strategies to maintain safe traffic movement through the construction zone, and to minimize any potential for traffic delays. The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation; therefore, no impacts are anticipated.

b), d) No Impact.

According to the Cal Fire Local Responsibility Area (LRA), Fire Hazard Severity Zone Map for eastern Riverside County, the project is not located in a LRA Very High or High Fire Hazard Severity Zone. As such, the project would not expose project occupants to pollutant concentrations from a wildfire or controlled spread of wildfire. The project would replace the existing RSP for the bridges at Three Star Ditch and Determination Ditch, as such the project would also not expose people or structures to post-fire slope instability as there are no structures with human occupancy within the project site.

c) No Impact.

The project area is not within a Very High Fire Hazard Severity Zone and 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.

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 Impact.

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. The project will implement avoidance and minimization measures in order to reduce impacts to species and their habitat as well as adhering to Caltrans Standard BMPs. The project will have no take of desert tortoise under the California Endangered Species Act (CESA) and no take to all other species, including mountain lion, least Bell's vireo, and southwestern willow flycatcher, listed under the CESA and will not cause species of special concern or rare species to trend towards becoming listed. The project is also within the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and is considered a covered activity under the plan.

The proposed project also does not have the potential to eliminate important examples of major periods of California history or prehistory.

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 restore scour protection at the bridges at Three Star Ditch and Determination Ditch to meet current standards, maintain bridge stability, and functionality, and protect the bridge from detrimental sediment build-up near the abutments.

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. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF6), and various hydrofluorocarbons (HFCs). CO2 is the most abundant GHG; while it is a naturally occurring and necessary component of Earth’s atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO2.

The impacts of climate change are already being observed in the form of sea level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, “mitigation” involves actions to reduce GHG emissions to lessen adverse impacts that are likely to occur. “Adaptation” is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

3.3.1 Regulatory Setting

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

3.3.1.1 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 United States Code [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 Federal Highway Administration (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.

The federal government has taken steps 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) as amended by the Energy Independence and Security Act (EISA) of 2007; and Corporate Average Fuel Economy (CAFE) Standards. This act established fuel economy standards for on-road motor vehicles sold in the United States. The U.S. Department of Transportation's National Highway Traffic and Safety Administration (NHTSA) sets and enforces the CAFE standards based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States. The Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards under the Clean Air Act. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation's energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014).

U.S. EPA published a final rulemaking on December 30, 2021, that raised federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026, increasing in stringency each year. This rulemaking revised lower emissions standards that had been previously established for model years 2021 through 2026 in the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part Two in June 2020. The updated standards will result in avoiding more than 3 billion tons of GHG emissions through 2050 (U.S. EPA 2021a).

3.3.1.2 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.

Assembly Bill (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.

Senate Bill (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] [GHGs differ in how much heat each traps in the atmosphere, called global warming potential, or GWP. CO2 is the most important GHG, so amounts of other gases are expressed relative to CO2, using a metric called "carbon dioxide equivalent," or CO2e. The global warming potential of CO2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO2.] 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.

[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.

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.

SB 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.

EO 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.

3.3.2 Environmental Setting

The proposed project is in a rural area, with a primarily with primarily vacant, open space. I-10 is the main transportation route to and through the area for both passenger and commercial vehicles. The nearest alternate route is I-8, sixty miles to the south. Traffic counts are low and I-10 is rarely congested. The Southern California Association of Governments (SCAG) guides transportation and housing development in the project area. The Riverside County Climate Action Plan (CAP) and the General Plan Air Quality element addresses GHGs in the project area.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for

documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

3.3.2.1 National GHG Inventory

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. The 1990 2019 inventory found that overall GHG emissions were 6,558 million metric tons (MMT) in 2019, down 1.7 percent from 2018 but up 1.8% from 1990 levels. Of these, 80 percent were CO_2, 10 percent were CH_4, and 7 percent were N_2O; the balance consisted of fluorinated gases. CO_2 emissions in 2019 were 2.2 percent less than in 2018, but 2.8 percent more than in 1990. As shown on Figure 3-1, the transportation sector accounted for 29 percent of U.S. GHG emissions in 2019 (U.S. EPA 2021b, 2021c).

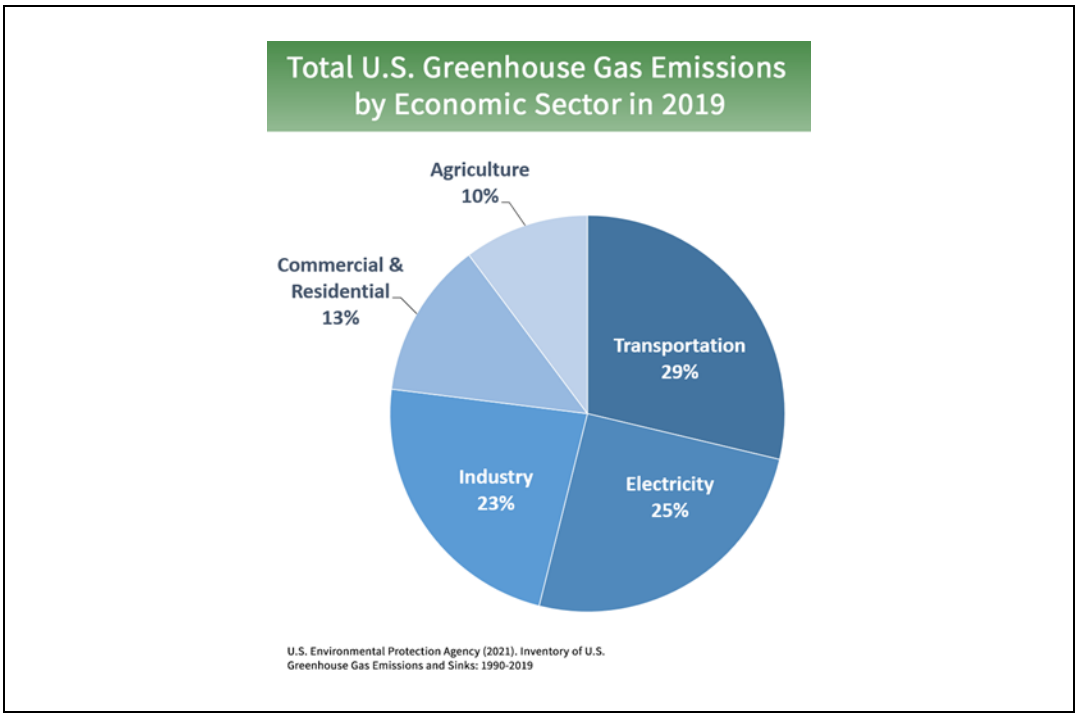


Figure 3-1. U.S. 2019 Greenhouse Gas Emissions (Source: U.S. EPA 2021d)

3.3.2.2 State GHG Inventory

ARB 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 2021 edition of the GHG emissions inventory reported emissions trends from 2000 to 2019. It found total California emissions were 418.2 MMTCO2e in 2019, a reduction of 7.2 $MMTCO_2e$ since 2018 and almost 13 $MMTCO_2e$ below the statewide 2020 limit of 431 $MMTCO_2e$. The transportation sector (including intrastate aviation and off road sources) was responsible for about 40 percent of direct GHG emissions, a 3.5 $MMTCO_2e$ decrease from

2018 (Figure 2). Overall statewide GHG emissions declined from 2000 to 2019 despite growth in population and state economic output (Figure 3-3) (ARB 2021a).

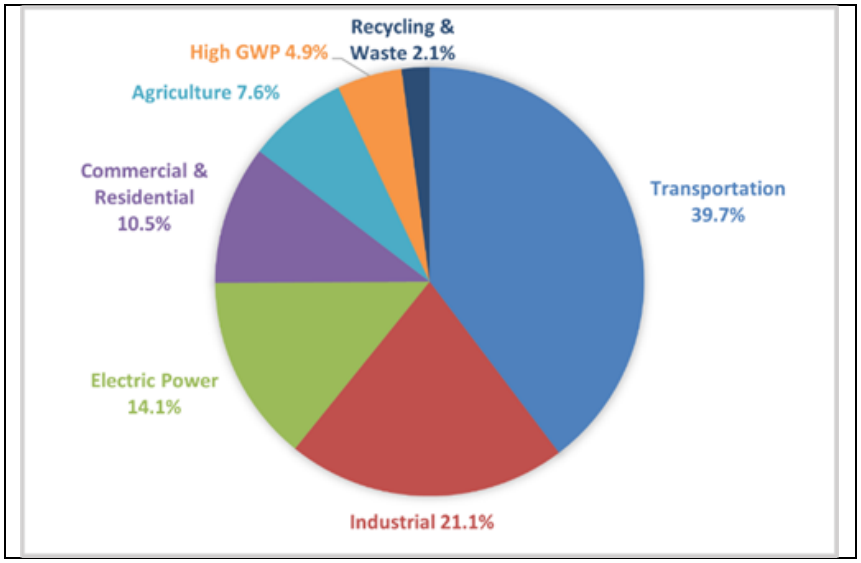


Figure 3-2. California 2019 Greenhouse Gas Emissions by Economic Sector (Source: ARB 2021a)

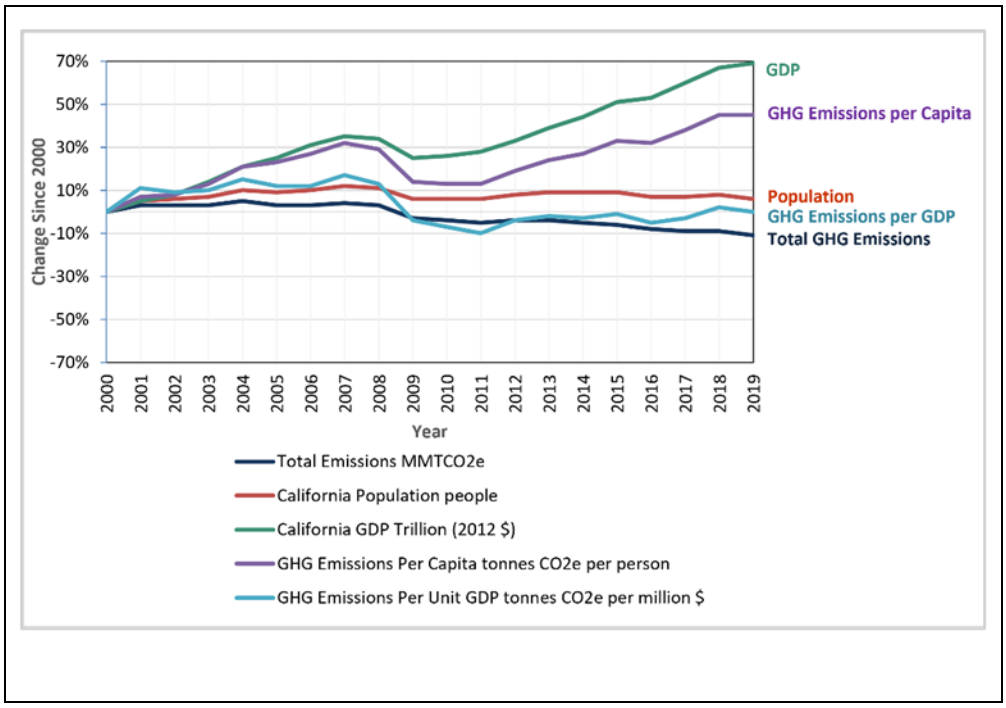


Figure 3-3. Change in California GDP, Population, and GHG Emissions Since 2000 (Source: ARB 2021a)

AB 32 required ARB 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 5 years. ARB 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.

3.3.2.3 Regional Plans

ARB sets regional GHG reduction targets for California's 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for the Southern California Association of Governments (SCAG). The regional reduction target for SCAG is 19 percent by 2035 (ARB 2021b).

The Southern California Association of Government 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (SCAG RTP/SCS) identifies I-10 as an investment in the preservation of highway systems, highway improvements, and for improving highway accessibility. ARB's regional reduction target for SCAG as of October 2018 is 19 percent by 2035, compared to 2005 levels (ARB 2021b). The RTP/SCS concluded that implementing the plan would result in an 8 percent per capita GHG reduction by 2020, an 19 percent reduction by 2035.

The Riverside County Climate Action Plan (Riverside County Planning Department 2019) serves as a guide 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 2019: Chapter 4). The regional plans and policies within the project area are summarized in Table 3-1 below.

Table 3-1. Regional Greenhouse Gas Reduction Policies

Title	GHG Reduction Policies or Strategies
Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (adopted September 3, 2020)	The SCS prepared as part of Connect SoCal complies with the emission reduction targets established by ARB and meets the requirements of SB 375 by achieving GHG emission reductions at 8% below 2005 per capita emissions levels by 2020 and 19% below 2005 per capita emissions levels by 2035. The RTP/SCS includes the following strategies. Several are directly tied to supporting related GHG reductions while others support the broader goals of Connect SoCal: • Improve mobility, accessibility, reliability, and travel safety for people and goods • Enhance the preservation, security, and resilience of the regional transportation system • Reduce greenhouse gas emissions and improve air quality • Adapt to a changing climate and support an integrated regional development pattern and transportation network

Title	GHG Reduction Policies or Strategies
Riverside County General Plan	Land Use Element (Adopted June 29, 2021) • Policy LU 2.1(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 (Adopted July 7, 2020) • 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 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. • 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: Encourage the use of alternative non-motorized transportation and the use of non-polluting vehicles. Air Quality Element (Adopted July 17, 2018) • 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.
Riverside County Climate Action Plan (2019)	Includes GHG mitigation, GHG reduction targets, and adaptations. The County's 2030 and 2050 target emissions level are 3.58 and 1.19 $MMTCO_2e$ per year, respectively. In order to meet the County's 2030 and 2050 emissions reduction targets, 22 priority actions were identified in the transportation, energy, and solid waste sectors. Transportation Measures • R2-T1: Alternative Transportation Options • R2-T2: Adopt and Implement a Bicycle Master Plan to Expand Bike Routes around the County • R2-T3: Ride-Sharing and Bike-to-Work Programs with Businesses • R2-T4: Electrify the fleet

3.3.3 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the State Highway System (SHS) (operational emissions) 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 burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH_4 and N_2O. A small amount of HFC emissions related to refrigeration is also 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 (Pub. Resources Code, § 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..

3.3.3.1 Operational Emissions

The purpose of this Project is to restore scour protection at the bridges at Three Star Ditch and Determination Ditch to meet the current standards, maintain bridge stability and functionality, and protect the bridge from detrimental sediment build up near the abutments and will 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 I-10, no increase in vehicle miles traveled (VMT) would occur. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

3.3.3.2 Construction Emissions

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will 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.

Use of long-life pavement, improved traffic management plans, and changes in materials, can also help offset emissions produced during construction by allowing longer intervals between maintenance and rehabilitation activities.

Construction emissions were estimated using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RCEM), Version 9.0. Construction of the proposed project is expected to start November 2024 and be completed by May 2025.

Construction emissions were estimated for the proposed project using default equipment inventories provided in RCEM, project construction scheduling information provided by the project engineer, and emissions factors from the EMFAC 2017 and OFFROAD models. The emissions presented are the worst-case maximum daily construction emissions (pounds per day) for each activity that would be generated from the construction of the proposed project and converted to metric tons of CO_2e. Overall project construction emissions of GHGs would be 730 metric tons CO_2e over the approximately 7-month construction period.

All construction contracts include Caltrans Standard Specifications related to air quality Section 7-1.02A and 7 1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions**.**

3.3.3.3 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.

3.3.4 Greenhouse Gas Reduction Strategies

3.3.4.1 Statewide Efforts

In response to AB 32, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation, industry, fuels, and other sectors, to take California into a sustainable, low-carbon and cleaner future, while maintaining a robust economy (ARB 2022).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by

2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015).

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 vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015). 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.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released Natural and Working Lands Climate Smart Strategy Draft for public comment in October 2021**.**

3.3.4.2 Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB 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.

Climate Action Plan for Transportation Investments

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021a)**.**

Caltrans Strategic Plan

The Caltrans 2020–2024 Strategic Plan includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a Department policy to ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. Caltrans Greenhouse Gas Emissions and Mitigation Report (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions. The report documents and evaluates current Caltrans procedures and activities that track and reduce GHG emissions and identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Departmental and State goals.

3.3.4.3 Project-Level GHG Reduction Strategies

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

GHG-1 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 with current practices.

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

GHG-5 The project will incorporate the following design features:

- Use water-efficient technologies for landscaping.
- Select project features that minimize the need for irrigation and nonnative plants.
- Incorporate native plants and vegetation to the project design. Replace more vegetation than was removed to increase carbon sequestration.
- Design and install long-life pavement structures to minimize life-cycle costs.
- Match existing grade as much as possible to reduce earthwork.

3.3.5 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 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.

3.3.5.1 Federal Efforts

Under NEPA Assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

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."

U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation 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.)

3.3.5.2 State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment) (2018) is the state's effort to "translate the state of climate science into useful information for action." It provides information that will help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The State's approach recognizes that the consequences of climate change

occur at the intersections of people, nature, and infrastructure. The Fourth Assessment reports that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience a 2.7 to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures, with impacts on agriculture, energy demand, natural systems, and public health; a two-thirds decline in water supply from snowpack and water shortages that will impact agricultural production; a 77% increase in average area burned by wildfire, with consequences for forest health and communities; and large-scale erosion of up to 67% of Southern California beaches and inundation of billions of dollars' worth of residential and commercial buildings due to sea level rise (State of California 2018).

Sea level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

In 2008, then-governor Arnold Schwarzenegger recognized the need when he issued EO S-13-08, focused on sea level rise. Technical reports on the latest sea level rise science were first published in 2010 and updated in 2013 and 2017. The 2017 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. This EO also gave rise to the California Climate Adaptation Strategy (2009), updated in 2014 as Safeguarding California: Reducing Climate Risk (Safeguarding California Plan), which addressed the full range of climate change impacts and recommended adaptation strategies. The Safeguarding California Plan was updated in 2018 and again in 2021 as the California Climate Adaptation Strategy, incorporating key elements of the latest sector-specific plans such as the Natural and Working Lands Climate Smart Strategy, Wildfire and Forest Resilience Action Plan, Water Resilience Portfolio, and the CAPTI (described above). Priorities in the 2021 California Climate Adaptation Strategy include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, nature-based climate solutions, use of best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2021).

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 in addition to 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.

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.

3.3.5.3 Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans completed climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea level rise.

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 guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to made capital programming decisions to address identified risks.

3.3.5.4 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.

Precipitation and Flooding

Based on the Federal Emergency Management Agency Flood Insurance Rate Map (Map Number 06065C2375G), the proposed project is primarily within Zone D (Areas in which flood hazards are undetermined, but possible). Based on the Caltrans District 8 Climate Change Vulnerability Assessment Map (Caltrans 2019), the 100-year storm precipitation depth in the project area is expected to increase by up to 3.2% by 2055, but by only up to 1.7% by 2085. This indicates heavier rainfall during storm events. Average annual rainfall in project area is about 4 inches; the wettest month is January, with less than 1 inches on average[2]. Accordingly, even a 5% increase of precipitation in the flood hazard area would amount to only a fraction of an inch more rainfall. It is expected that the project would be adapted to the anticipated changes in storm precipitation under climate change.

Wildfire

Based on the Caltrans District 8 Climate Change Vulnerability Assessment Map (Caltrans 2019), the project area is not located within an area of concern for wildfire exposure. According to the CAL FIRE Local Responsibility Area (LRA) Fire Hazard Severity Zone Map for eastern Riverside County, the project is not located in a LRA Very High or High Fire Hazard Severity Zone. Therefore, the project would not require the installation or maintenance of infrastructure that would be vulnerable to fire. Caltrans standard specifications mandate fire prevention procedures, including a fire prevention plan, to avoid accidental fire starts during construction.

[2] https: //wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3855

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 the Department's efforts to fully 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

An official species lists for USFWS was obtained through IPaC on March 4, 2022. A Programmatic Biological Opinion for desert tortoise was submitted on November 8, 2021 to USFWS and deemed complete on December 15, 2021. Final Biological Opinion concurrence was received on March 29, 2022.

4.1.2 Native American Coordination

4.1.2.1 Native American Heritage Commission

The Native American Heritage Commission (NAHC) was contacted by letter sent on December 8, 2020, and asked to provide information regarding sacred lands and a list of Native American organizations/individuals for contact. The NAHC responded on December 30, 2020, 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) prepared for the project and summarized below.

- Twenty-Nine Palms Band of Mission Indians, Anthony Madrigal, Tribal Historic Preservation Officer (THPO).
- Agua Caliente Band of Cahuilla Indians, Patricia Garcia-Plotkin, Director.
- Soboba Band of Luiseno Indians, Joseph Ontiveros, THPO.
- Cabazon Band of Mission Indians, Doug Welmas, Chairperson.
- Augustine Band of Cahuilla Indians, Amanda Vance, Chairperson.

These letters served as formal notification of a proposed project, as required under the California Environmental Quality Act, specifically Public Resources Code Section 21080.3.1 and Assembly Bill (AB) 52 (Chapter 532, Statutes 2014). The letters provided a project description, including the project location, and discussed upcoming cultural resources studies of the project area.

The following are a summary of the responses received:

- Twenty-Nine Palms Band of Mission Indians, Anthony Madrigal, Tribal Historic Preservation Officer (THPO). Letter sent on January 7, 2020. Response received on February 2, 2021. The THPO is not aware of any sites associate with the Twenty-Nine Palms in the project limits and recommended monitoring and requests to be notified of all updates and/or changes to the project. Caltrans noted the monitoring recommendation response and will notify the Twenty-Nine Palms Band of Mission Indians should the project change. No further comments have been received.

- Agua Caliente Band of Cahuilla Indians, Patricia Garcia-Plotkin, Director. Letter was sent on January 7, 2020. No responses have been received to date.

- Soboba Band of Luiseno Indians, Joseph Ontiveros, THPO. Letter was sent on January 7, 2020. No responses have been received to date.

- Cabazon Band of Mission Indians, Doug Welmas, Chairperson. Letter was sent on January 7, 2020. No responses have been received to date.

- Augustine Band of Cahuilla Indians, Amanda Vance, Chairperson. Letter was sent on January 7, 2020. No responses have been received to date.

4.1.3 California Department of Fish and Wildlife

An official species list for CDFW was obtained through CNDDB on October 6, 2021. The species list is included below.

4.2 Agency Coordination Documentation

The following pages includes the official species list from USFWS and CDFW.

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: March 04, 2022
Project Code: 2022-0015594
Project Name: 1J470/0818000055 08-RIV-10-87.9/90.9 RSP Replacement

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, 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 at the Fish and Wildlife Service's Endangered Species Consultation website at:

https://www.fws.gov/endangered/what-we-do/faq.html

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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 Code 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

Project Code: 2022-0015594
Event Code: None
Project Name: 1J470/0818000055 08-RIV-10-87.9/90.9 RSP Replacement
Project Type: Bridge - Maintenance
Project Description: The California Department of Transportation (Caltrans) District 8 proposes to replace the existing Rock Slope Protection (RSP) for four bridges along the westbound and eastbound lanes of Interstate 10 (I-10) in Riverside County. Caltrans District 8 proposes a Project to restore scour protection at bridges Three Star Ditch (western BSA) and Determination Ditch (eastern BSA) along I-10 from post-mile (PM) 87.98 to PM 90.98 in order to meet the current standards, maintain bridge stability and functionality, and protect the bridge from detrimental sediment build up near the abutments. The Project will require replacement of the eroded areas of existing RSP with new RSP and filter-fabric in places near the bridge abutments footings. The existing guardrail and barbed-wire fence will be removed and replaced. Temporary dirt access roads and staging equipment areas will be provided to give construction personnel access to perform all necessary work and will be removed at the conclusion of construction. BLM land will be needed within the TCE to provide the temporary dirt construction access road and staging areas at Three Star Ditch.

The Project is located approximately 30 miles east of Indio along I-10 at two locations and encompasses four bridges from PM 87.98 to PM 90.98 in Riverside County, California. The Project is located on the U.S. Geological Service (USGS) 7.5-minute Hayfield, CA quadrangle (San Bernardino Base and Meridian). The approximate center of the BSA is located at 33.667658° North and -115.665521° West. The approximate western extent of the BSA is located at 33.665063° North and -115.693496° West, and the eastern extent of the BSA is located at 33.668976° North and -115.636979° West.

Schedule:
DED 4/15/22
PAED 8/4/22
RTL 10/2/23
CCA 5/6/25

Project Location:
Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.667701,-115.6606939953713,14z

03/04/2022 3

Counties: Riverside County, California

Endangered Species Act Species

There is a total of 4 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
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Desert Tortoise *Gopherus agassizii* Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

NAME	STATUS
Desert Tortoise *Gopherus agassizii* https://ecos.fws.gov/ecp/species/4481#crithab	Final

IPaC User Contact Information

Agency: California Department of Transportation District 8
Name: alisha curtis
Address: 464 W 4th st, 6th floor, MS 822
City: San Bernardino
State: CA
Zip: 92401
Email alisha.curtis@dot.ca.gov
Phone: 9094725993

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Hayfield (3311566))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus bernardinus San Bernardino milk-vetch	PDFAB0F190	None	None	G3	S3	1B.2
Astragalus tricarinatus triple-ribbed milk-vetch	PDFAB0F920	Endangered	None	G2	S2	1B.2
Ayenia compacta California ayenia	PDSTE01020	None	None	G4	S3	2B.3
Castela emoryi Emory's crucifixion-thorn	PDSIM03030	None	None	G3G4	S2S3	2B.2
Chylismia arenaria sand evening-primrose	PDONA03020	None	None	G4?	S2S3	2B.2
Colubrina californica Las Animas colubrina	PDRHA05030	None	None	G4	S2S3	2B.3
Desert Fan Palm Oasis Woodland Desert Fan Palm Oasis Woodland	CTT62300CA	None	None	G3	S3.2	
Ditaxis serrata var. californica California ditaxis	PDEUP08050	None	None	G5T3T4	S2?	3.2
Euphorbia abramsiana Abrams' spurge	PDEUP0D010	None	None	G4	S2	2B.2
Euphorbia jaegeri Orocopia Mountains spurge	PDEUP0Q440	None	None	G1	S1	1B.1
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Gopherus agassizii desert tortoise	ARAAF01012	Threatened	Threatened	G3	S2S3	
Matelea parvifolia spear-leaf matelea	PDASC0A0J0	None	None	G5	S3	2B.3
Ovis canadensis nelsoni desert bighorn sheep	AMALE04013	None	None	G4T4	S3	FP
Panicum hirticaule ssp. hirticaule roughstalk witch grass	PMPOA4K170	None	None	G5T5	S2	2B.1
Senna covesii Cove's cassia	PDFAB491X0	None	None	G5	S3	2B.2
Spermolepis gigantea desert scaleseed	PDAPI05020	None	None	G2G3	SH	2B.1
Stylocline sonorensis mesquite neststraw	PDAST8Y060	None	None	G3G5	SX	2A
Toxostoma bendirei Bendire's thrasher	ABPBK06050	None	None	G4	S3	SSC

Record Count: 19

Government Version -- Dated October, 1 2021 -- Biogeographic Data Branch

Report Printed on Wednesday, October 06, 2021

Page 1 of 1

Information Expires 4/1/2022

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Chapter 6 Distribution List

The Initial Study/Environmental Assessment (IS/EA) and/or a Notice of Availability was distributed to the following federal, state, regional, and local agencies, elected officials, interested groups, organizations and individuals in the project area. In addition, all property owners and resident/occupants located within 500 feet of the proposed project were provided with a Notice of Availability.

6.1 Agencies and Elected Officials

HONORABLE DIANNE FEINSTEIN US SENATOR 880 FRONT STREET, #4236 SAN DIEGO, CA 92101	HONORABLE ALEX PADILLA US SENATOR 600 B STREET, SUITE 2240 SAN DIEGO, CA 92101	HONORABLE RAUL RUIZ, M.D. US REPRESENTATIVE 36TH DISTRICT 43875 WASHINGTON STREET, SUITE F PALM DESERT, CA 92211
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HONORABLE ELAINE HOLMES COUNCILMEMBER COUNCIL DISTRICT 3 100 CIVIC CENTER MALL INDIO, CA 92201	HONORABLE WAYMOND FERMON MAYOR COUNCIL DISTRICT 2 100 CIVIC CENTER MALL INDIO, CA 92201	HONORABLE OSCAR ORTIZ MAYOR PRO TEM, COUNCIL DISTRICT 4 100 CIVIC CENTER MALL INDIO, CA 92201
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Appendix A Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determination

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I-10/Rock Slope Protection Project

Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determination

Chuckwalla Valley, Riverside County, California
District 8-RIV-1- (PM 87.9/90.9)

EA 08-1J470/PN 0818000055

June 2022

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 May 27, 2022 and executed by FHWA and Caltrans.

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.

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Chapter 1 Introduction

1.1 Section 4(f) of the Department of Transportation Act of 1966

Section 4(f) of the 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."

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, or 4) the project does not permanently use the property and does not hinder the preservation of the property.

Chapter 2 Project Description

The proposed project would replace the existing Rock Slope Protection (RSP) for four bridges at Three Star Ditch and Determination Ditch. The project is located in Riverside County, approximately 30 miles east of the City of Indio, along I-10 at PM R87.96 and PM R90.98. Within the project limits, I-10 is a four lane (two lanes in each direction) highway that runs in an east-west direction. The project is located in a rural setting with mostly undeveloped, natural open space.

2.1 Purpose

The purpose of this project is to:

- Improve the safety of the traveling public by restoring the scour protection and upgrading the existing bridge railing at the bridges at Three Star Ditch and Determination Ditch to meet current standards;
- Maintain bridge stability and functionality;

2.2 Need

A Bridge Inspection Report was prepared in October 2018 by Caltrans for both Determination Ditch and Three Star Ditch. The inspection indicated that Determination Ditch was constructed in 1967 and consists of a continuous 3-span reinforced concrete (RC) slab with open-end diaphragm abutments with monolithic wingwalls and RC piers, all on spread footings. The channel is trapezoidal shaped with soft, sandy bottom and rock slope protection. The inspection indicated that, at the time of inspection, the RSP at both abutments was inadequate at Determination Ditch, missing some rocks at the banks with voids. The bridge was deemed scour critical. The RSP was not considered adequate and the abutment spread footings as prone to undermining and scouring. Three Star Ditch was also constructed in 1967 and consists of a continuous 3-span RC slab with open-end diaphragm abutments with monolithic wingwalls and RC piers, all on spread footings. The channel is trapezoidal with soft, sandy bottom and rock slope protection. The inspection indicated that, at the time of the inspection, the RSP at both abutments at Three Star Ditch were inadequate, missing some rocks at the banks with voids. The bridge was deemed scour critical. The RSP was not considered adequate and the abutment spread footings were prone to undermining and scouring. As such, the project addresses the following need:

- The project is needed to protect the abutments and foundations of the bridges at Three Star Ditch and Determination Ditch. Proper protection from erosion and sediment build up at the bridge abutments and foundations are necessary to maintain the stability and functionality of the bridges.

2.3 Project Alternatives

One Build Alternative and a No-Build Alternative will be evaluated in the environmental document for the proposed project:

The proposed project alternatives are described in further detail below.

2.3.1 No-Build Alternative

Under this alternative, no reconstruction or improvements would be made to the existing bridges at Three Star Ditch or Determination Ditch, other than routine maintenance.

2.3.2 Build Alternative

Under the Build Alternative, the Department proposes to replace the existing RSP for four bridges along the westbound and eastbound lanes of I-10 in Riverside County, California. The project will restore scour protection at the bridges, Three Star Ditch and Determination Ditch, along I-10 from PM 87.9 to PM 90.9 in order to meet the current standards, and maintain bridge stability and functionality. The project will require replacement of the eroded areas of existing RSP with new RSP with new Class VII (1/2 ton) RSP on Class 8 RSP fabric at abutments and along the embankments between the bridges. The existing guardrail and barbed-wire fence will be removed and replaced with current standard Midwest Guardrail System (MGS) and adding a 12-inch rumble strip to the inside and outside shoulders. It is also proposed to replace the existing bridge rails (Type 9) with Manual for Assessing Safety Hardware (MASH)-compliant concrete barrier (Type 842). The existing bridge deck overhangs will be widened to accommodate the new concrete barrier and still maintain inside and outside standard shoulder widths of 5 feet and 10 feet, respectively. Temporary dirt access roads and staging equipment areas will be provided to give construction personnel access to perform all necessary work and will be removed at the conclusion of construction. A Temporary Construction Easement (TCE) is anticipated with the Bureau of Land Management (BLM) managed land to provide the temporary dirt construction access road and staging areas at Three Star Ditch.

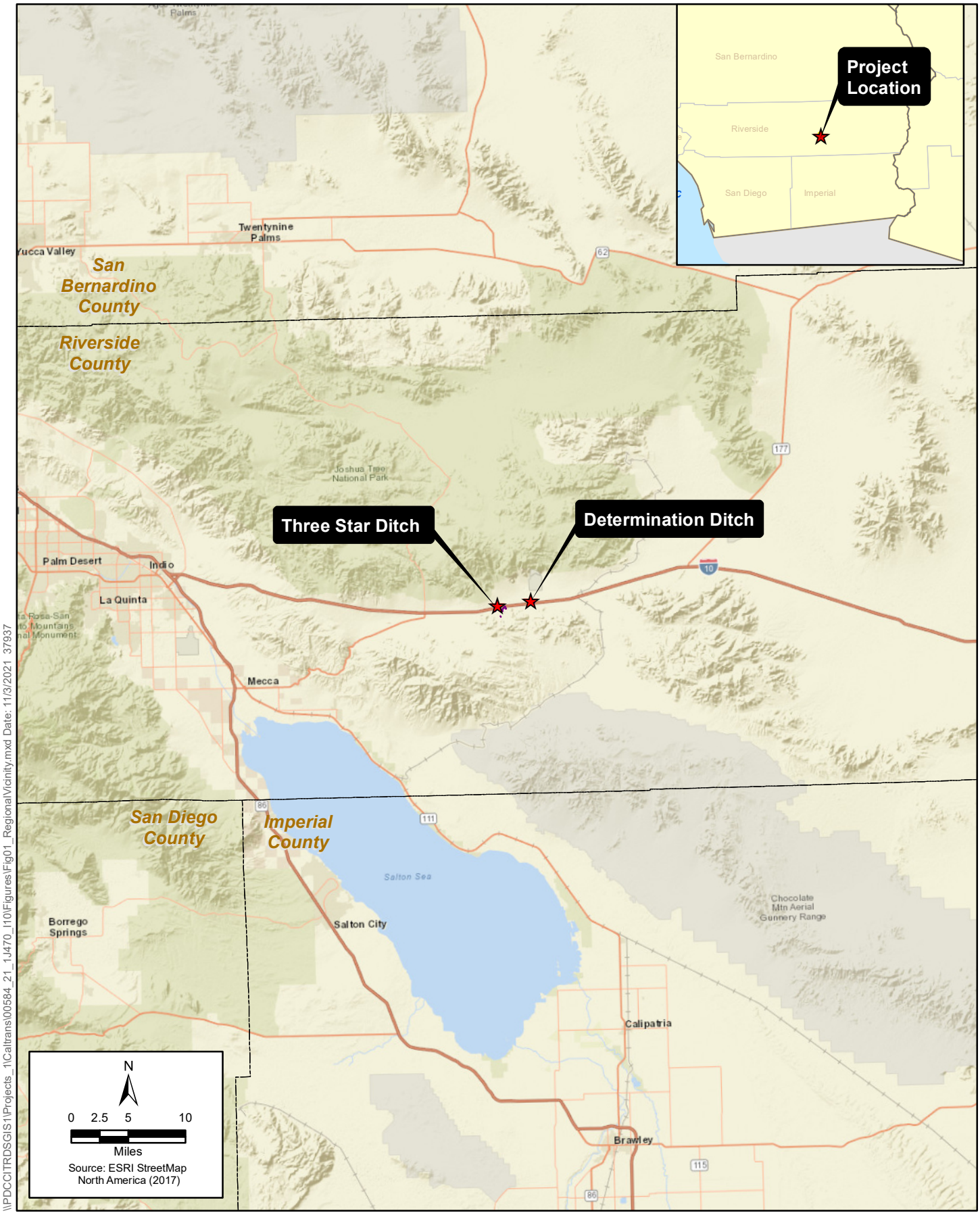

Figure 1
Regional Vicinity
I-10 Rock Slope Protection Project

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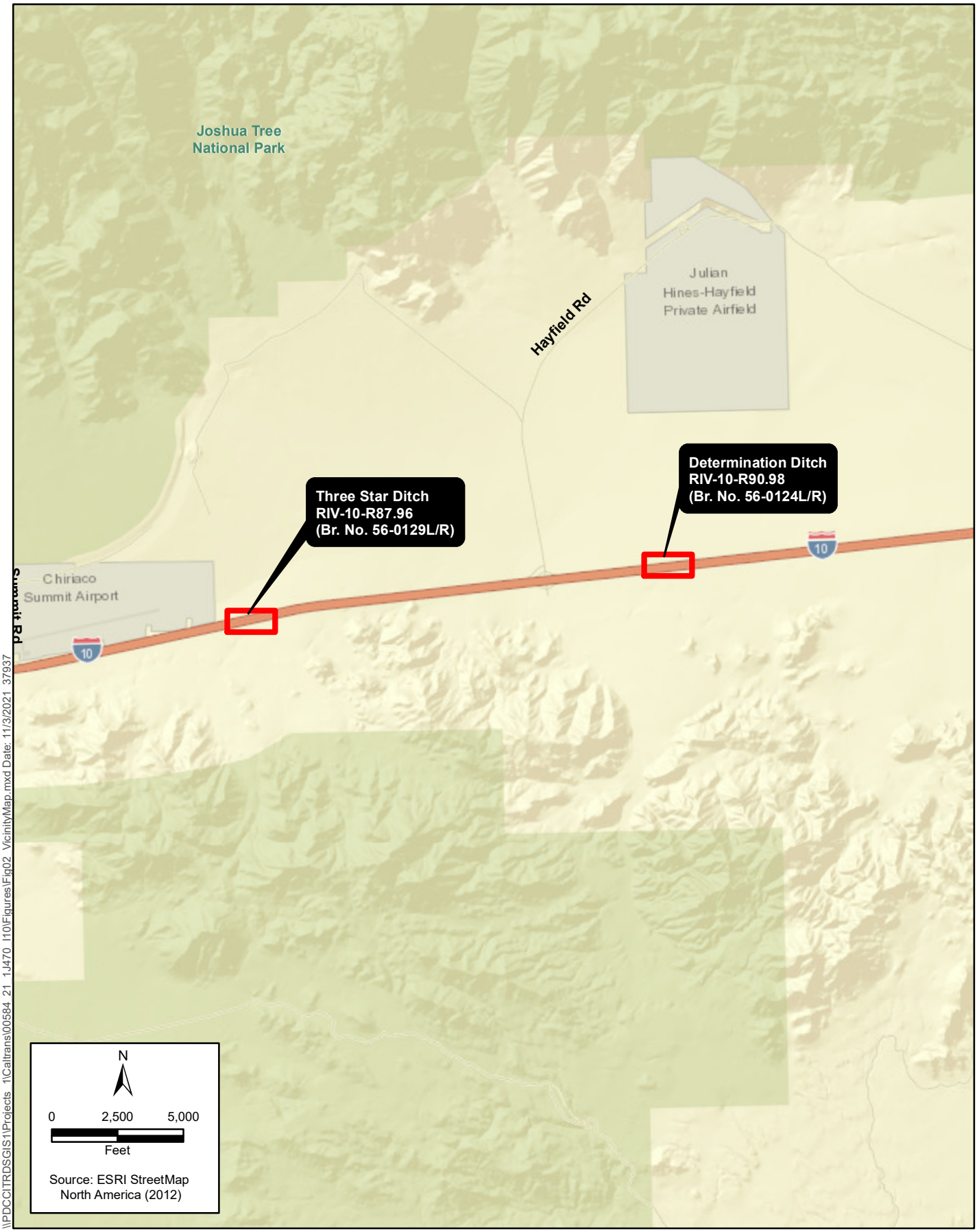

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Figure 2
Project Location Map
I-10 Rock Slope Protection Project

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Chapter 3 Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determination

The following resources have been identified within the project site area and were analyzed to determine whether these properties are protected Section 4(f) properties and whether the project would "use" the properties under Section 4(f).

Table 1. Potential Section 4(f) Properties within the Project Area

Jurisdiction	Name	Location	Distance from Project Limits	Amenities
National Parks Service, U.S. Department of the Interior	Joshua Tree National Park	6554 Park Boulevard, Joshua Tree, 92252*	1.5 miles north	4 Visitors Centers with bathrooms and picnic tables. Hiking trails and 9 campsites.
Bureau of Land Management, U.S. Department of the Interior	Orocopia Mountains Wilderness	20 miles southeast of Indio, northern access provided off of I-10	5 miles south	Hiking and horseback trails, camping, and wildlife viewing.
Source: National Parks Service Website: https://www.nps.gov/jotr/index.htm. Bureau of Land Management Website: https://www.blm.gov/visit Note: * = Address provided is for the Joshua Tree Visitor Center.				

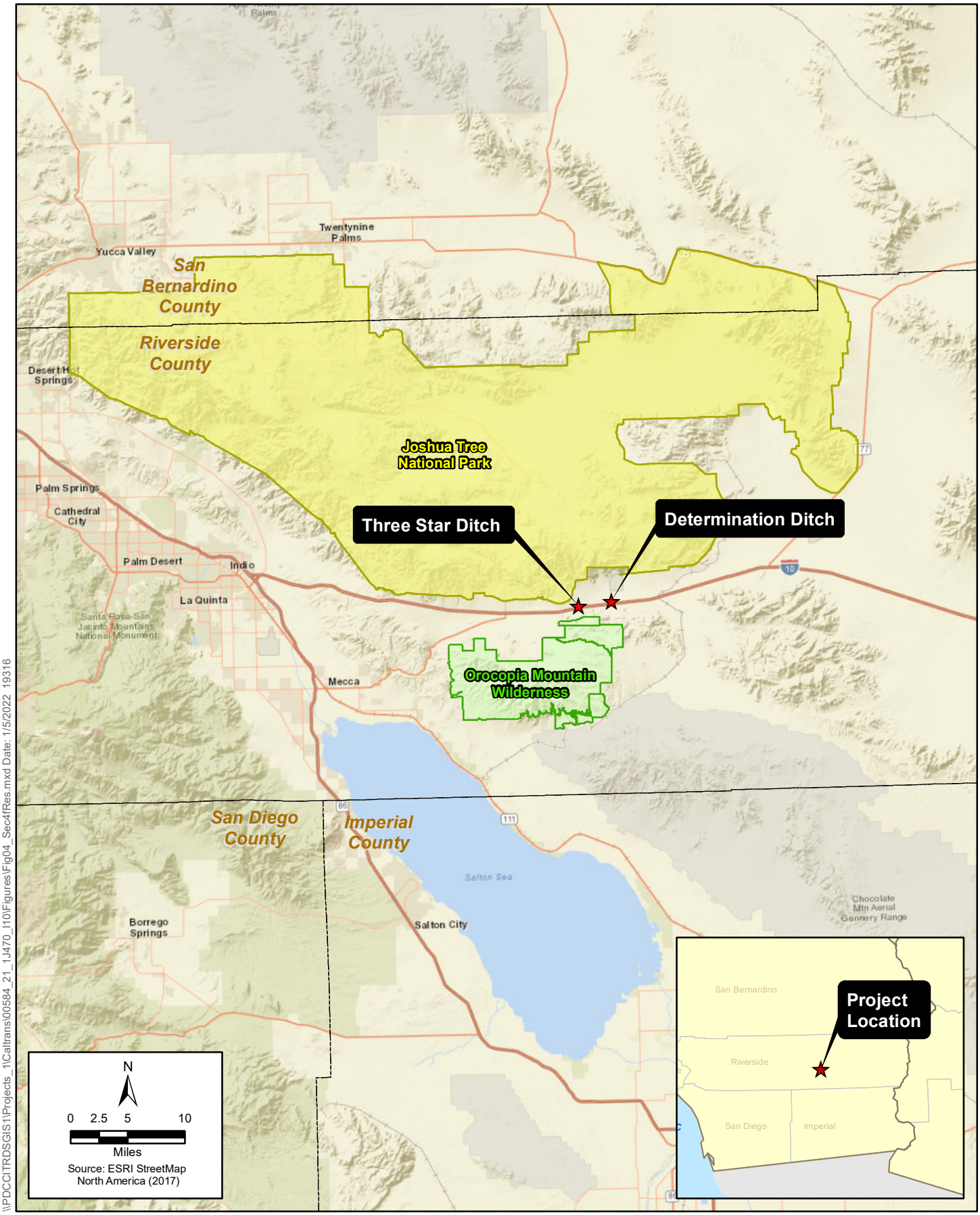

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Figure 3
Section 4(f) Resources
I-10 Rock Slope Protection Project

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Chapter 4 No-Use Determination

As described below, the properties identified in Table 1 would not be directly or indirectly impacted in a manner that would adversely impact the features, activities, or attributes that qualify the properties for protection under Section 4(f). As further described below, although the properties are Section 4(f) properties, no "use" would occur. As such, the provisions of Section 4(f) do not apply.

4.1 Joshua Tree National Park

The Joshua Tree National Park is located approximately 1.5 miles north of the project site and encompasses over 792,000 acres of land managed by the National Park Service. The park is a transition zone between two desert ecosystems; the Colorado and Mojave Deserts, and provides recreational activities including bird watching, star gazing, backpacking, camping, hiking, horseback riding, and rock climbing. The project would not require permanent or temporary roadway closures, as such, access to the park would not be affected by the project. Furthermore, the project would not result in increases to traffic, noise, or air quality emissions that would adversely affect the Joshua Tree National Park. There would be no direct use of the Section 4(f) property that could result in permanent incorporation or temporary occupancy. Construction activities would result in temporary increases in noise and air quality emissions generated from construction equipment, however, due to the distance of Joshua Tree National Park, these construction activities would be short-term, and minor, and would not constitute a constructive use. Therefore, the provisions of Section 4(f) are not triggered, and no avoidance, minimization, and/or mitigation measures are recommended.

4.2 Orocopia Mountains Wilderness

The Orocopia Mountain Wilderness is located approximately 5 miles to the south of the project site and includes 51,300 acres managed by the Bureau of Land Management (BLM). The wilderness area offers visitors recreational activities including camping, hiking, horseback riding, hunting (in designated areas), wildlife viewing, and wildlife photography opportunities. The project would not require permanent or temporary roadway closures, as such, access to Orocopia Mountains Wilderness would not be affected by the project. Additionally, the project would not result in increases to traffic, noise, or air quality emissions that would adversely affect the wilderness. Portions of Three Star Ditch are located within land owned by BLM, however, not within areas designated as the Orocopia Mountains Wilderness. Temporary, unpaved access roads and staging equipment areas would be required at Three Star Ditch to provide construction personnel access to perform the necessary work. A Temporary Construction Easement (TCE) would be required from BLM managed land to provide the temporary construction access road and staging areas at Three Star Ditch bridge. The temporary access roads and staging equipment areas will be removed at the conclusion of construction. Construction activities would result in temporary increases in noise and air quality emissions from construction equipment, however, due to the distance of the Orocopia Mountains Wilderness from the project limits, construction-related impacts are anticipated to be minor and temporary and would not constitute a constructive use.

Chapter 5 Avoidance, Minimization, and/or Mitigation Measures

5.1 Measures to Minimize Harm

Measures have been identified during development of the technical studies and the Draft IS/EA to minimize potential temporary project-related impacts. The following minimization measures would be implemented during construction of the proposed project:

TMP-1 A Transportation Management Plan (TMP) will be prepared during the final design phase to minimize traffic impacts during construction. The primary objective of the TMP is to maintain safe movement through the construction zone, as well as minimize traffic delays during the construction period. The TMP will include, but not be limited to public information communications, information for motorists from changeable message signs or temporary signs, incident management plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor, and construction strategies such as traffic plans.

AQ-1 The construction contractor will comply with SCAQMD Rule 403 (Fugitive Dust), which specifies actions or control measures to prevent, reduce, or mitigate PM emissions generated from construction, demolition, excavation, extraction, and other earthmoving activities.

AQ-2 Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.

AQ-3 Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas.

AQ-4 Trucks will be washed off as they leave the right of way as necessary to control fugitive dust emissions.

AQ-5 Construction equipment and vehicles will be properly tuned and maintained. Ultra-low-sulfur fuel will be used in all construction equipment as required by California Code of Regulations, Title 17, Section 93114.

AQ-6 Equipment and materials storage sites will be located as far away from residential and park uses as practical. Construction areas will be kept clean and orderly.

AQ-7 Track-out reduction measures, such as gravel pads at project access points, will be used to minimize dust and mud deposits on roads affected by construction traffic.

AQ-8 All transported loads of soils and wet materials will be covered prior to transport or adequate freeboard (i.e., space from the top of the material to the top of the truck) will be provided to reduce PM10 and deposition of particulate during transportation.

AQ-9 Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be removed to decrease PM.

AQ-10 The construction contractor will comply with Caltrans Standard Specifications in Section 14-9.02 and other standard practices according to the California Air Resources Board (ARB) and South Coast Air Quality Management District (SCAQMD) requirements for air quality restrictions, such as reducing idling time, properly maintaining equipment, and controlling fugitive dust during the construction period

AQ-11 Construction equipment fleets will be in compliance with Best Available Control Technology requirements.

AQ-12 All engines or portable engine-driven equipment will be required to obtain permits will obtain either an ARB Portable Equipment Registration or a permit from SCAQMD.

AQ-13 During construction, dust palliatives will be used as specified in the Department's Standard Specifications, Section 18-1.03A, General.

NOI-1 The project will comply with sound control provisions as included in Section 14-8.02, "Noise Control," of the Department's Standard Specifications and Special Provisions.

Appendix B Title VI Policy Statement

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Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

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www.dot.ca.gov

Making Conservation a California Way of Life.

September 2021

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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.

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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; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

Toks Omishakin
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment."

Appendix C Environmental Commitments Record

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Permit Type	Agency	Date Submitted	Date Received	Expiration	Fee	Notes	Permit Requirement Completed	
							Name	Date
Section 1602 Streambed Alteration Agreement	California Department of Fish & Wildlife							
Porter-Cologne Act and Clean Water Act (CWA) Section 401 Water Quality Certification	Regional Water Quality Control Board							
National Pollutant Discharge Elimination System (NPDES) Permit	State Water Resources Control Board							
Programmatic BO for Desert Tortoise	U.S. Fish and Wildlife Service	11/8/2021	3/29/22			Application deemed complete 12/15/2021, final BO Concurrence received 3/29/22.		

Date of ECR: **June 2022**
Date of ED: **June 2022**
CEQA – Initial Study (IS)
NEPA – Environmental Assessment (EA)

ENVIRONMENTAL COMMITMENTS RECORD
(I-10/Rock Slope Protection Project)

08-RIV-10
PM 87.9/90.9

EA 08-1J470
PN 0818000055

Environmental Generalist:
Teresa Howard

Environmental Const. Liaison:
TBD

Project Phase:
☒ PA/ED (*DED*)
☐ PS&E Submittal_____ %
☐ Construction
☐ CEC/CCA

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
Utility/Emergency Services										
TMP-1 A Transportation Management Plan (TMP) will be prepared during the final design phase to minimize traffic impacts during construction. The primary objective of the TMP is to maintain safe movement through the construction zone, as well as minimize traffic delays during the construction period. The TMP will include, but not be limited to public information communications, information for motorists from changeable message signs or temporary signs, incident management plan that would define parameters and responsibilities to respond to incidents on and adjacent to the construction corridor, and construction strategies such as traffic plans.	2-9	Environmental Document	Design/Resident Engineer/ Contractor	Prior to and during Construction						

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
Cultural Resources										
CR-1: If buried cultural resources are encountered during Project Activities, it is Caltrans policy that work stop within 60 feet of the area until a qualified archaeologist can evaluate the nature and significance of the find.	2-14	Environmental Document, Archaeological Survey Report	Contractor/ Caltrans Cultural Studies	During all ground-disturbing and construction activities.	SSP 14-2.03					
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) 260-5178 and Gary Jones, DNAC: (909) 261-8157. Further provisions of PRC 5097.98 are to be followed as applicable.	2-14	Environmental Document, Archaeological Survey Report	Contractor/ Caltrans Cultural Studies	During all ground-disturbing and construction activities.	SSP 14-2.03					

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
Water Quality and Storm Water										
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.	2-22	Environmental Document	Contractor/ Caltrans Environmental Engineering	Prior to demolition or grading activities, and during all excavation and construction activities.	13-3.01D(2					
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;	2-23	Environmental Document	Contractor/ Caltrans Environmental Engineering	Prior to demolition or grading activities, and during all excavation and construction activities.	13-3.01C(2					

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
(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 Section 401 Water Quality Certification from the RWQCB, 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.	2-23	Environmental Document	Contractor/ Caltrans Environmental Engineering	Prior to demolition or grading activities, and during all excavation and construction activities.	13-3.01D(2)					
Geology/Soils/Seismicity/Topography										
GEO-1: The project will implement Caltrans Standard Specifications Sections 13-5 which includes specifications for placing temporary soil stabilization materials for temporary erosion control. This may include, but not limited to, the use of erosion control blankets, temporary mulch, soil binders, temporary covers, and gravel-filled bags.	2-27	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, demolition or construction activities.	Sections 13-5					

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
GEO-2: 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. This includes, but not limited to, the use of compost, seed application, application of tackifier, imported topsoil, fiber rolls, and erosion control blankets.	2-27	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, demolition or construction activities.	Section 21-1 through 21-3					
Hazardous Waste/Materials										
HAZ-1: Comply with the following Department Standard Special Provisions regarding non-hazardous soils, National Emissions Standards for Hazardous Air Pollutants (NESHAP) notification, and treated wood waste: •Section 7-1.02K(6)(j)(iii), Non-hazardous soil. •Section 14-9.02, NESHAP notification. •Section 14-11.14, Treated wood waste.	2-31	Environmental Document	Contractor/ Caltrans Environmental Engineering	Prior to demolition or grading activities, and during all excavation and construction activities	SSP 7-1.02K(6)(j)(iii), 14-9.02, 14-11.14					
Air Quality										
AQ-1: The construction contractor will comply with SCAQMD Rule 403 (Fugitive Dust), which specifies actions or control measures to prevent, reduce, or mitigate PM emissions generated from construction, demolition, excavation, extraction, and other earthmoving activities.	2-42	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
AQ-2: Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.	2-42	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-3: Soil binder will be spread on any unpaved roads used for construction purposes and all project construction parking areas.	2-42	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-4: Trucks will be washed off as they leave the right of way as necessary to control fugitive dust emissions.	2-42	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-5: Construction equipment and vehicles will be properly tuned and maintained. Ultra-low-sulfur fuel will be used in all construction equipment as required by California Code of Regulations, Title 17, Section 93114.	2-42	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-6: Equipment and materials storage sites will be located as far away from residential and park uses as practical. Construction areas will be kept clean and orderly.	2-42	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
AQ-7: Track-out reduction measures, such as gravel pads at project access points, will be used to minimize dust and mud deposits on roads affected by construction traffic.	2-43	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-8: All transported loads of soils and wet materials will be covered prior to transport or adequate freeboard (i.e., space from the top of the material to the top of the truck) will be provided to reduce PM_{10} and deposition of particulate during transportation.	2-43	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-9: Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be removed to decrease PM.	2-43	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-10: The construction contractor will comply with Caltrans Standard Specifications in Section 14-9.02 and other standard practices according to the California Air Resources Board (ARB) and South Coast Air Quality Management District (SCAQMD) requirements for air quality restrictions, such as reducing idling time, properly maintaining equipment, and controlling fugitive dust during the construction period.	2-43	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
AQ-11: Construction equipment fleets will be in compliance with Best Available Control Technology requirements.	2-43	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-12: All engines or portable engine-driven equipment will be required to obtain permits will obtain either an ARB Portable Equipment Registration or a permit from SCAQMD.	2-43	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
AQ-13: During construction, dust palliatives will be used as specified in the Department's Standard Specifications, Section 18-1.03A, General.	2-43	Environmental Document	Contractor/ Caltrans Environmental Engineering	During any ground disturbance, renovation, demolition or construction activities.						
Noise										
NOI-1: The project will comply with sound control provisions as included in Section 14-8.02, "Noise Control," of the Department's Standard Specifications and Special Provisions.	2-48	Environmental Document	Contractor/ Caltrans Environmental Engineering	Design/During any ground disturbance, renovation, demolition or construction activities.	SSP 14-8.02					

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
Biological Resources										
NC-1: The project is within the CVMSHCP and considered a covered activity under Section 7.2.2 and 7.3.1.1 of the CVMSHCP. Caltrans will coordinate with the Coachella Valley Conservation Commission (CVCC) to make the required mitigation fee payment for covered activities per CVMSHCP Section 7.2.2. Caltrans, as a signatory of the CVMSHCP, is obligated through the CVMSHCP Section 6.6.2 to contribute funds to the CVCC for the acquisition of conservation lands, management and monitoring of the lands.	2-52	Environmental Document, Natural Environment Study-Minimal Impacts (NES-MI)	Resident Engineer/ Caltrans Biological Studies	Following approval of ED. Prior to Construction.						
WET-1: Proposed project impacts to jurisdictional areas may be mitigated and coordinated with RWQCB, and CDFW during the permitting process. It is anticipated that a minimum 1:1 ratio may be applied to any permanent impacts of jurisdictional waters to be paid in the form of onsite restoration, permittee responsible mitigation, in-lieu fee, mitigation bank credit, land acquisition, or as agreed upon with respective resource agencies.	2-56	Environmental Document, NES-MI	Resident Engineer/ Caltrans Biological Studies	Following approval of ED. Prior to Construction.						
BIO-1: Equipment Staging, Storing, & Borrow Sites. All staging, storing, and borrow sites require the approval of the Caltrans biologist.	2-60	Environmental Document, NES-MI; Bio-General-1	Contractor/ Caltrans Biological Studies	Prior to and during construction activities.						

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
BIO-2: Pre-construction Nesting Bird Survey. If project activities cannot avoid the nesting season, generally regarded as February 1 to September 30, then pre-construction nesting bird surveys must be conducted 3 days prior to construction by a qualified biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer may be established and monitored by the qualified biologist.	2-65	Environmental Document, NES-MI; Bio-Avian-1	Contractor/ Caltrans Biological Studies	Pre Construction						
BIO-3: Temporary Artificial Lighting Restrictions. Artificial lighting must be directed at the job site to minimize light spillover onto the desert wash and bridge structure, if project activities occur at night.	2-66	Environmental Document, NES-MI; Bio-General-2	Contractor/ Caltrans Biological Studies	Prior to and during construction activities.						
BIO-4: Catchment Methods. Catchment methods to contain debris from the bridge deck, including any netting material, must be approved by the Caltrans biologist.	2-66	Environmental Document, NES-MI; Bio-General-PSM-17	Contractor/ Caltrans Biological Studies	Prior to and during construction activities.						

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
BIO-5: Monarch Butterfly Host Plant Preconstruction Clearance Survey, Flagging, and Fencing. No more than 3 days prior to project activities, a qualified biologist must perform a preconstruction survey for Monarch butterfly host plants. Should any host plants be found, the Resident Engineer and Caltrans biologist must be contacted, and host plants must be flagged by the qualified 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 (ESA) temporary fencing.	2-70	Environmental Document, NES-MI; Bio-Anthropod-1	Contractor/ Caltrans Biological Studies	Prior to and during construction activities.						
BIO-6: Existing Monarch Butterfly Host Plants. Previously identified host plants located at Three Star Ditch, white stemmed milkweed (*Asclepias albicans*), must be protected in place, as feasible.	2-71	Environmental Document, NES-MI; Bio-Anthropod-PSM-2	Contractor/ Caltrans Biological Studies	Prior to and during construction activities.						
BIO-7: Plant Seed Mix. Seed mixes must contain a diversity of native pollinator plants species including milkweed.	2-71	Environmental Document, NES-MI; Bio-Anthropod-PSM-3	Contractor/ Caltrans Biological Studies	Prior to construction activities.						
BIO-8: Species Avoidance. If during project activities, a desert tortoise is discovered within the project site, all construction activities must stop within 100 feet and the Caltrans biologist and Resident Engineer must be notified. Coordination with CDFW and USFWS may be required prior to restarting activities.	2-71	Environmental Document, NES-MI; Bio-General-6	Contractor/ Caltrans Biological Studies	During construction activities.						

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
BIO-9 Worker Environmental Awareness Program (WEAP). A qualified Caltrans-approved biologist must present a biological resource information program/WEAP for desert tortoise prior to project activities to all personnel that will be present within the project limits for longer than 30 minutes at any given time.	2-71	Environmental Document, NES-MI; Bio-General-7	Contractor/ Caltrans Biological Studies	Prior to Construction						
BIO-10 Equipment Flagging. Project personnel must attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for desert tortoise before operating equipment at any time**.**	2-71	Environmental Document, NES-MI; Bio-Reptile-1	Contractor/ Caltrans Biological Studies	During construction						
BIO-11 Trash/Predation. Caltrans must implement measures to reduce the attractiveness of job sites to desert tortoise and other subsidized predators by controlling trash and educating workers.	2-71	Environmental Document, NES-MI; Bio-Reptile-5	Contractor/ Caltrans Biological Studies	During Construction						
BIO-12 Rock Slope Protection. To prevent trapping of desert tortoise, interstitial spaces within rock slope protection must be filled with a substrate to prevent large crevices.	2-71	Environmental Document, NES-MI; Bio-Reptile-9	Contractor/ Caltrans Biological Studies	During Construction						

Appendix D References

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Appendix D References

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_____. 2021c. *I-10/Rock Slope Protection Archaeological Assessment Memorandum*. November 2021. Prepared by the California Department of Transportation.

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Appendix E List of Technical Studies

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Appendix E 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 I-10/Rock Slope Protection Project.

- *I-10/Rock Slope Protection Project, Natural Environment Study (Minimal Impacts)(November 2021)*
- *I-10/Rock Slope Protection Project, Historic Property Survey Report (November 2021)*
- *I-10/Rock Slope Protection Project, Archaeological Assessment Memorandum (November 2021)*
- *Site Investigation and Hazardous Materials Survey Report, Replace Exiting Rock Slope Protection at Four Bridges at Three Star Ditch and Determination Ditch and Replace Metal Beam Guardrail (April 2021)*
- *I-10/Rock Slope Protection Project, Initial Site Assessment (ISA) Checklist (December 2021)*
- *I-10/Rock Slope Protection Project, Air Review – Environmental Study Request (ESR)(October 2021)*
- *I-10/Rock Slope Protection Project, Noise Review – Environmental Study Request (October 2021)*
- *I-10/Rock Slope Protection Project, Questionnaire to Determine Visual Impact Assessment (VIA) Level (August 2021)*
- *I-10/Rock Slope Protection Project, Project Initiation Report to Request Programming in the 2020 SHOPP (June 2019)*
- *Bridge Scour, Determination Ditch, Preliminary Hydraulic Report (December 2020)*
- *Bridge Scour, Three Star Ditch, Preliminary Hydraulic Report (December 2020)*
- *Draft Final Hydraulic Report, Determination Ditch Bridge (May 2022)*
- *Draft Final Hydraulic Report, Three Star Ditch Bridge (April 2022)*

Appendix F Acronyms and Abbreviations

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Appendix F Acronyms and Abbreviations

°F	degrees Fahrenheit
AADT	Annual Average Daily Traffic
AB	Assembly Bill
ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
ADI	Area of Direct Impact
ADL	aerially deposited lead
APE	Area of Potential Effect
ARB	Air Resources Board
BLM	Bureau of Land Management
BMP	Best Management Practice
BSA	biological study area
CAFE	Corporate Average Fuel Economy
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH_4	methane
CHP	California Highway Patrol
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CWA	Clean Water Act
Department	California Department of Transportation
DSA	disturbed surface area
EO	Executive Order
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GHG	greenhouse gas
LBP	lead-based paint
LOS	level of service
mg/cm^2	milligram per square centimeter
mg/kg	milligram per kilogram
mg/L	milligram per liter
MLD	Most Likely Descendant
mph	mile per hour
MSAT	mobile source air toxic
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NES/MI	Natural Environment Study/Minimal Impacts
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
ROW	right of way

RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SSP	Standard Special Provision
SWPPPs	Storm Water Pollution Prevention Plans
SWRCB	State Water Resources Control Board
TCE	temporary construction easement
TMP	Traffic Management Plan
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
VOC	volatile organic compound