I-10 Replace Rock Slope Protection

RIVERSIDE COUNTY, CALIFORNIA
DISTRICT 8 – RIV– 10 (PM R92.9 – R101.1)
EA 08-1H200/PN 0816000177

Initial Study with
Proposed Mitigated Negative Declaration

Prepared by the
State of California, Department of Transportation

April 2020

General Information About This Document

What's in this document:
The California Department of Transportation (Caltrans) has prepared this Initial Study which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Riverside County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA) This 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.
- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments via postal mail or email to Caltrans by the deadline below.
    - Send comments via postal mail to:
      Shawn Oriaz, Senior Environmental Planner
      California Department of Transportation
      464 W. 4th Street, MS 827
      San Bernardino, CA 92401-1400
    - Send comments via email to: 10.RockSlope@dot.ca.gov
- Send comments by the deadline: June 8, 2020

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

Alternative Formats:
For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Natasha Walton, Environmental Planner, 464 W. 4th Street, MS 827, San Bernardino, CA, 92401, (909) 383-6934; or call 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.

08-RIV-10-PM R92.9/R101.1
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Interstate 10 Replace Rock Slope Protection
Interstate 10, from Krume Ditch (Postmile R92.9) to Wide Ditch (Postmile R101.1)
Between Hayfield Road and Eagle Mountain Road Near Desert Center, in Riverside County

INITIAL STUDY with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agency: California Transportation Commission

4/29/2020
Date

David Bricker
Deputy District Director
District 8, Division of Environmental Planning
California Department of Transportation

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

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(909) 388-7034

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the rock slope protection (RSP) at twenty-four bridges along an 8-mile distance of Interstate 10 (I-10), from Krume Ditch, (Postmile [PM] R92.9) to Wide Ditch (PM R101.1) in an unincorporated portion of Riverside County, California. These bridges are located between Hayfield Road and Eagle Mountain Road, just west of Desert Center.

The purpose of the project is to replace the RSP to current construction standards at each bridge to protect the structural integrity of these bridges to prevent bridge collapse.

Determination

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

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

The proposed project would have no effect on agriculture and forest resources, energy, geology and soils, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire.

In addition, the proposed project would have no significantly adverse effects on cultural resources, aesthetics, and greenhouse gas emissions.

With the following mitigation measures incorporated, the proposed project would have less than significant effects to biological resources, and hazards and hazardous material.

BIO-1 Environmentally Sensitive Area (ESA) Fencing: To protect the sensitive habitat ESA fencing will be used to delineate the sensitive habitat.

BIO-2 Transplantation: If Alverson's foxtail cactus or Utah vine milkweed cannot be avoided, the biologist will translocate this species outside of the construction work zone and delineate appropriately.

BIO-3 Preconstruction Nesting Bird Survey: If construction occurs within nesting bird season (Feb 1 – Sept 30), conduct pre-construction nesting bird surveys before construction to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer will be established and monitored.

BIO-4 Lighting: Artificial lighting shall be directed at the work site only.

BIO-5 Biological Monitor: A qualified biologist will be designated who will oversee compliance of all protective measures and will notify the resident engineer of project activities that are not compliant. The resident engineer must stop work until the protective measures are implemented.

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

BIO-7 Pre-construction Clearance Survey for Desert Tortoise: Immediately prior to the start of any ground-disturbing activities and prior to the installation of any desert tortoise exclusion fencing, clearance surveys for the desert tortoise will be conducted by the biologist, as appropriate. The entire project area will be surveyed for desert tortoise and their burrows by the qualified biologist before the start of any ground disturbing activities.

BIO-8 Temporary Desert Tortoise Fencing: Temporary exclusion fencing will be installed outlining the perimeter of any construction staging, storage or batch plant areas to prevent entry by desert tortoises into the work site. Exclusion fencing will be installed following United States Fish and Wildlife Service (USFWS) guidelines (2005) or more current protocol. The biologist will ensure that desert tortoises cannot pass under, over, or around the fence. The biologist must regularly check the fenced area and make any necessary repairs should it become damaged.

BIO-9 Desert Tortoise under Vehicles and/or Equipment: The qualified Biologist and project personnel shall carefully check regularly under parked vehicles or equipment for desert tortoises before moving any vehicles or equipment. Desert tortoises found within the staging and/or construction areas will be allowed to move away from such areas to a location away from danger, on their own accord. Workers will not be allowed to capture, handle, or relocate tortoises. Project activities shall re-commence only once the desert tortoise is safely outside the project areas or required protected areas.

BIO-10 Desert Tortoise in Work Area: If at any time a desert tortoise is observed in the Caltrans' Right of Way (ROW), the qualified biologist will have the authority to halt any activity, through the Resident Engineer or other identified authority in charge of implementation, that may pose a threat to desert tortoises and to direct movements of equipment and personnel to avoid injury or mortality to desert tortoises.

BIO-11 Injured Desert Tortoise: The qualified biologist will inform USFWS and California Department of Fish and Wildlife (CDFW) of any injured or dead tortoises found on site (verbal notification within 24 hours and written notification within 5 days).

BIO-12 Desert Tortoise Monitoring Reports: The qualified biologist will conduct on-site monitoring and submit monitoring reports for desert tortoise and during construction.

BIO-13 Predation Prevention: Workers are prohibited from feeding all wildlife.

HW-1 Aerially Deposited Lead (ADL) Investigation: If the soil at the proposed project site is found to contain lead at unacceptable levels, a lead compliance plan will be required and implemented to minimize the possible hazardous exposure of lead to workers.

David Bricker
Deputy District Director
District 8, Division of Environmental Planning
California Department of Transportation

Date

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Chapter 1 – Proposed Project

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

Introduction

In California, Interstate 10 (I-10) traverses over 240 miles of roadway across San Bernardino, Riverside, and Los Angeles Counties. I-10 serves as a major connector where it connects the coast of Los Angeles to the Arizona border and serves as a major corridor for commuters, goods, and defense-vehicle movement. In the Inland Empire, I-10 begins in Montclair and traverses 20 cities within San Bernardino and Riverside Counties. I-10 is 196 miles in length and ranges from four mixed-flow lanes to eight mixed-flow and two HOV lanes. In the proposed project limit, I-10 consists of a four-lane divided highway with twelve-feet wide lanes, five-feet wide inside shoulders, and ten-feet wide outside shoulders, in the eastbound and westbound directions, separated by a 120-feet wide graded dirt median.

The topography of the project site appears flat but rises approximately 200 feet in elevation as one travels from the easternmost site at Wide Ditch to the westernmost site at the Irolo Ditch. The lowest elevation of the survey area is approximately 1,200 ft (366 m) above mean seal level (AMSL) at the Wide Ditch bridge and the highest elevation is approximately 1,400 ft (427 ft) AMSL at the Irolo Bridge site.

The Structure Maintenance and Investigations (SM&I) Hydraulics Department of the California Department of Transportation (Caltrans) undertook a review of bridges similar in design and location to the I-10 Tex Wash bridge (#56-0576R) which collapsed in July 2015. According to an April 28, 2016 project report, twenty-four bridges of these bridges were classified as scour critical and identified as requiring scour mitigation (or scour reduction). Scour critical means that the material, like sand and rocks, around the bridge abutments has been removed by the flow of water to the point where each bridge could become unstable.

The current rock slope protection (RSP) placed to protect the abutments of these twenty-four bridges has been impacted by previous storm events and does not meet current RSP standards. Caltrans proposes to replace the existing RSP at these bridges which are located along an eight-mile distance of I-10, from Krume Ditch to Wide Ditch, in an unincorporated portion of Riverside County, California. All proposed project activities are anticipated to take place within Caltrans Right of Way.

The project is currently programmed for funding from the 2018 State Highway Operation and Protection Program (SHOPP) under 20.XX.201.111 (HA21) Bridge Major Rehabilitation for delivery in the 2022 fiscal year. It is classified as Category 4B as defined in the Project Development Procedure Manual, Chapter 8, Section 5.

This project is also included in the 2019 Federal Statewide Transportation Improvement Program (FSTIP) for federal funding (appendix C).

The purpose of the proposed project is:

- To preserve the structural integrity of twenty-four bridges,
- To prevent bridge failure or an emergency situation similar to what occurred due to the bridge collapse at Tex Wash.

- To protect the foundations of the abutments from critical scour at the bridges within the project's limits.

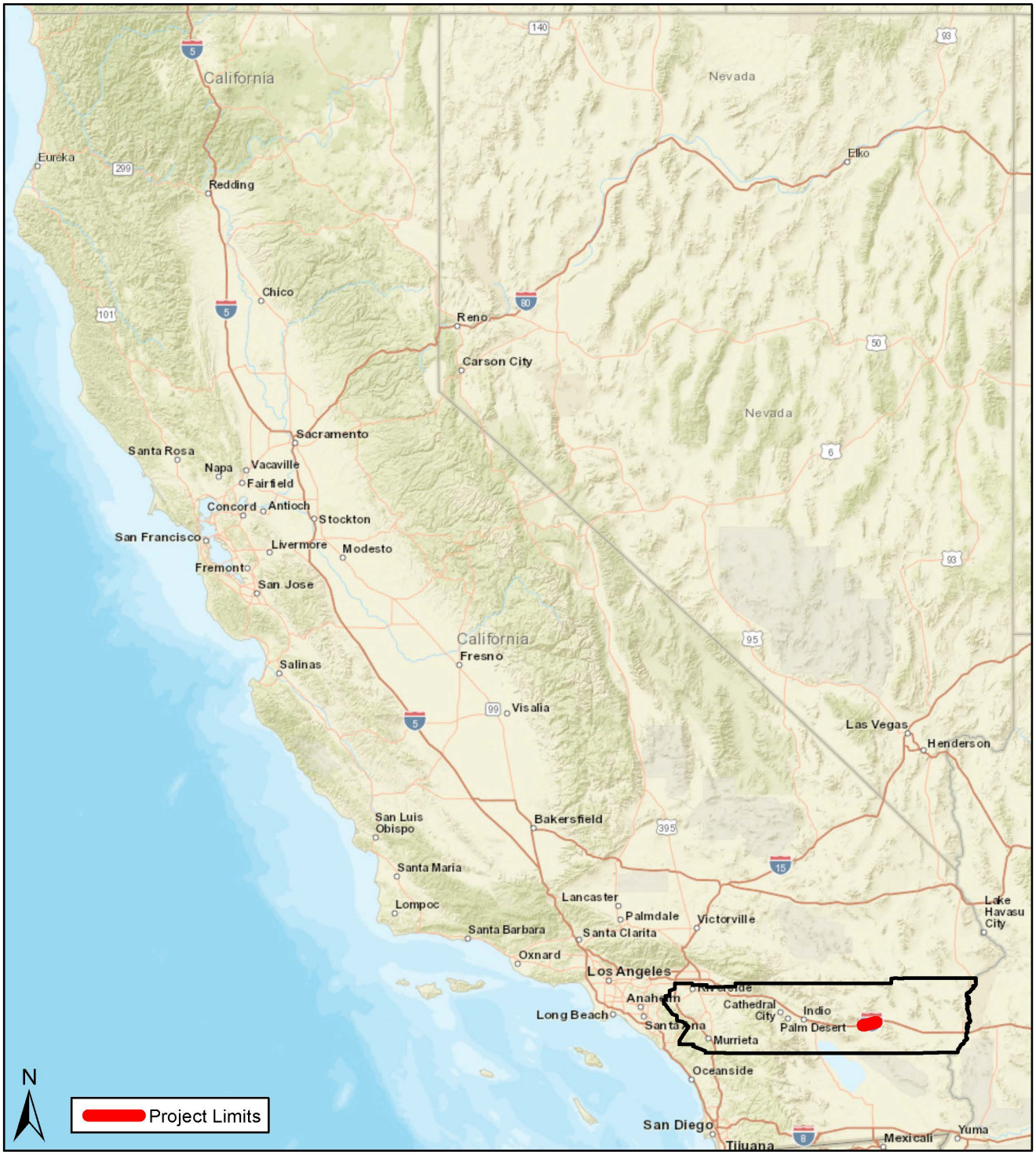
The project is needed because the RSP placed when these structures were built has been impacted by previous storm events and does not meet current RSP standards. Thus, if RSP is not reconstructed, the bridges could collapse during future flash flood events.

Caltrans is the lead agency under the California Environmental Quality Act (CEQA).

Project Description

Caltrans proposes to replace the existing RSP at twenty-four bridges that cross over twelve different ditches (Table 1), from Krume Ditch to Wide Ditch, along a 8 miles of I-10 in an unincorporated portion of Riverside County, California. These bridges are located between Hayfield Road and Eagle Mountain Road, approximately four miles west of Desert Center and seven miles east of Chiriaco Summit (Figures 1-3). The typical bridge width for all bridges is 39 feet. The project sites consist of twelve areas of various configurations, with each area containing two bridge crossings (one east- and west-bound bridge).

Project Location



Replace Existing Rock Slope Protection
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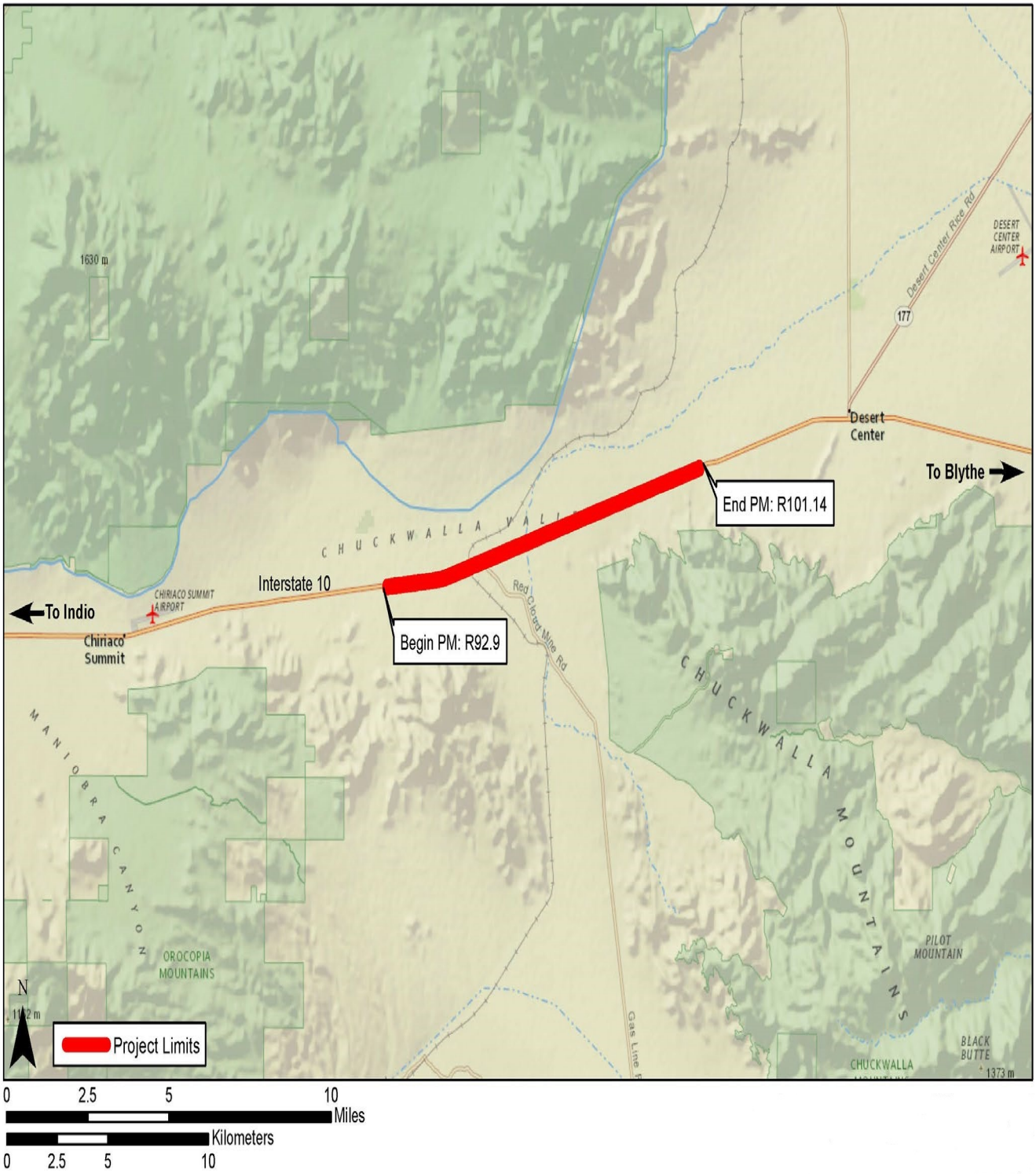
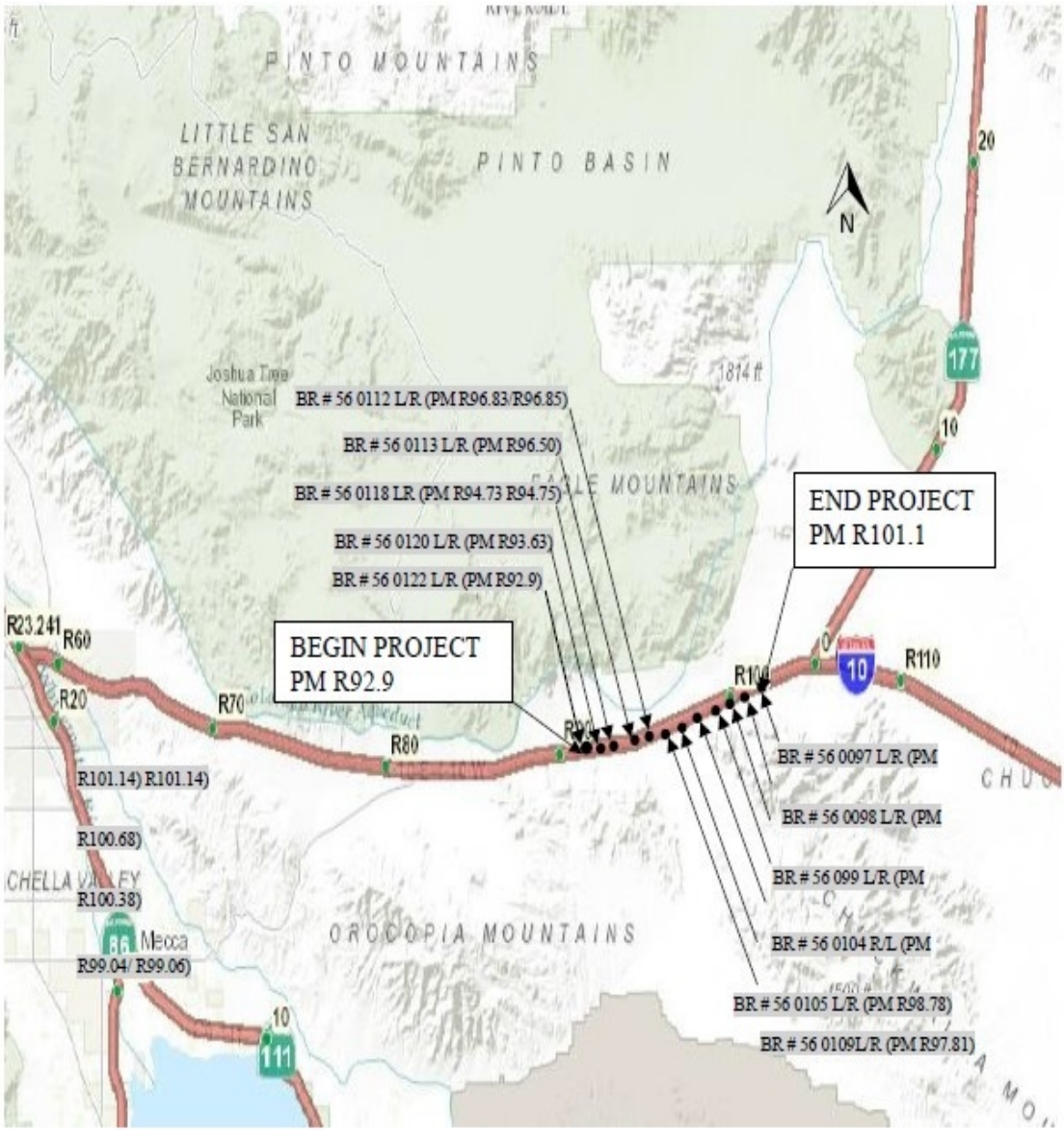
EA: 08-1H200 PN: 0816000177

Project Vicinity



Bridge Locations



Bridge Name and Locations

Location	Postmile (PM)	Bridge Number	Bridge Name
1	R 92.9	56 0122 L	Krume Ditch
2	R 92.9	56 0122 R	Krume Ditch
3	R 93.6	56 0120 L	Beta Ditch
4	R 93.6	56 0120 R	Beta Ditch
5	R 94.7	56 0118 L	Tecka Ditch
6	R 94.8	56 0118 R	Tecka Ditch
7	R 96.5	56 0113L	Irolo Ditch
8	R 96.5	56 0113 R	Irolo Ditch
9	R 96.8	56 0112 R	Ajax Ditch
10	R 96.9	56 0112 L	Ajax Ditch
11	R 97.3	56 0111 L	Shanty Ditch
12	R 97.3	56 0111 R	Shanty Ditch
13	R 97.8	56 0109 L	Union Ditch
14	R 97.8	56 0109 R	Union Ditch
15	R 98.8	56 0105 L	Bula Ditch
16	R 98.8	56 0105 R	Bula Ditch
17	R 99.1	56 0104 L	Taro Ditch
18	R 99.0	56 0104 R	Taro Ditch
19	R 100.4	56 0099 L	Adair Ditch
20	R 100.4	56 0099 R	Adair Ditch

21	R 100.7	56 0098 L	Hillock Ditch
22	R 100.7	56 0098 R	Hillock Ditch
23	R 101.1	56 0097 L	Wide Ditch
24	R 101.1	56 0097 R	Wide Ditch

Alternatives

Build Alternative

The Build Alternative proposed scope of work includes:

- Removal of the existing ¼ ton RSP along both banks at the bridge abutments, including the median
  areas between bridges.
- Reuse of surplus materials (mainly sediment) on the median.
- Use of structural backfill to build up the bank slopes to a ratio of horizontal distance to vertical rise of vertical distance (H:V) of 1.5:1.
- Placement of filter fabric and standard RSP on banks beyond the upstream and downstream limits of the left and right bridges. The RSP is to be keyed into the channel a minimum of five vertical feet below the proposed channel bed elevation.
- Construction of temporary access roads on the median from the highway to the ditches and within the ditches for material delivery and equipment access during construction.
- Channel bed excavation is proposed in ten ditches that have limited bridge vertical clearance for construction equipment. This includes Shanty Ditch (westbound and eastbound, 56-0111L/R), Union Ditch (westbound and eastbound, 56-0109L/R), Bula Ditch (westbound and eastbound, 56-0105L/R), Taro Ditch (eastbound, 56-0104R), Adair Ditch (westbound and eastbound 56-0099L/R), Hillock Ditch (westbound, 56-0098L).

The following utility companies and facilities are within the proposed project limits:

Utility Companies:

Southern California Edison-Distribution
Southern California Gas Transmission and Distribution
Frontier Communications
ATT-Transmission and Distribution
Sprint

Facilities:

Underground electrical
Overhead electrical
Gas
Telephone
Fiber Optic
Water

Sewer
Cable TV

The proposed project does not anticipate any impacts to utilities or facilities.

No Build Alternative

The No Build Alternative proposes no rehabilitative activities to decrease the amount of scour that occurs at the bridge abutment foundations that would prevent the bridges from collapsing. This alternative does not meet the purpose and need and is not a viable alternative.

After the public circulation period, all comments will be considered, Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment. Under the California Environmental Quality Act (CEQA), if no unmitigable significant adverse impacts are identified, Caltrans will prepare a Negative Declaration (ND) or Mitigated ND.

Permits and Approvals Needed

The following permits, licenses, agreements, and certifications (PLACs) are required for the proposed project construction:

Agency	PLAC	Status
United States Fish and Wildlife Service (USFWS)	Programmatic Biological Opinion Concurrence for Desert Tortoise and Streamlined Biological Opinion through Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) for Desert Tortoise	Expected prior to final environmental document (FED) approval.
United States Army Corps of Engineers	Approved Jurisdictional Determination for exemption from a Section 404 Permit	Submission expected after FED approval.
California Department of Fish and Wildlife	1602 Lake and Streambed Alteration Agreement	Application for 1602 permit expected after FED approval.
Colorado River Regional Water Quality Control Board	Waste Discharge Report	Submission expected after FED approval.

Chapter 2 – California Environmental Quality Act (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 National Environmental Policy Act (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.

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 a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Regulatory Setting

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

CEQA Significance Determinations for Aesthetics

a) No Impact

Visual impacts on scenic vistas or obstruction of significant views will not occur as a result of the proposed project. There would be no change to the existing height of roadway or other structural elements thereof.

b) No Impact

I-10 is not designated as a state scenic highway and is not noted in the County of Riverside General Plan as a County-designated Scenic Route.

c) Less than Significant Impact

The proposed project consists of twelve ditches located within a non-urbanized area of open desert and undulating terrain. This project would not change road alignment or topography; however, trees and other forms of vegetation would be impacted. Six of these twelve ditches may require tree removal of up to three trees. Low desert native plant growth such as Blue Palo Verde trees grow at random locations. The removal of these few trees is determined to be

inconspicuous due to their locations along flowlines, tree height, and random density typical in this area. Thus, these impacts are anticipated to be less than significant.

d) No Impact

The project would not implement or create any new sources of light or glare that would adversely affect day or nighttime views in the area.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs), the BMPs in the stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

VIS-1 Vegetation Replacement: Any removal of trees or shrubs is proposed to be replaced in kind with a minimum ratio of 3:1 (ratio may change) to achieve massing comparable to previously existing.

VIS-2 Erosion Control: Provide erosion control for all Disturbed Soil Areas (DSA) per water board guidelines or as determined by the district landscape architect (DLA).

AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Regulatory Setting

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

CEQA Significance Determinations for Agriculture and Forest Resources

a) No Impact

According to the California Department of Conservation's Farmland Mapping and Monitoring Program pursuant to Section 65570 of the California Government Code, there are no farmlands or vacant lands that are designated as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance within the vicinity of the proposed project. The local land use maps indicate the project area as open space rural or conservation habitat, therefore no agricultural land use is within the project area. Due to the absence of farmlands, no such conversion would occur, therefore no impact related to this issue would result from the proposed project.

b) No Impact

There are no parcels zoned for agricultural use or under a Williamson Act contract within the proposed project limits, therefore no impacts to conversion of land covered by a Williamson Act contract would occur from the proposed project.

c, d) No Impact

There are no forest or timberlands within the project limits.

e) No Impact

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

Avoidance, Minimization, and/or Mitigation Measures

None

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?	☐	☐	☒	☐

Regulatory Setting

The Federal Clean Air Act as amended, is the primary federal law that governs air quality while the California Clean Air Act is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency and the California Air Resources Board, set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards. NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide, nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM10) and particles of 2.5 micrometers and smaller (PM2.5)—and sulfur dioxide (SO_2). In addition, national and state standards exist for lead (Pb), and 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.

CEQA Significance Determinations for Air Quality

a, b, c) No Impact

The proposed project location is in the Mohave Desert Air Basin, within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD is the primary agency responsible for writing the Air Quality Management Plan (AQMP) in cooperation with the Southern California Association of Governments (SCAG), local governments, and the private sector. The AQMP provides the blueprint for meeting state and federal ambient air quality standards. This proposed project is

not a capacity-increasing transportation project; it will have no impact on traffic volumes and would generate a less than significant amount of pollutants during construction due to the very short duration of project construction. According to the table 1 of the Caltrans Carbon Monoxide Protocol and table 2 of the Code of Federal Regulations (CFR) 93.126, this project is also exempt from all emissions analysis. Therefore, the proposed project will not conflict with the AQMP, violate any air quality standard, result in a net increase of any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations. Impacts will be less than significant.

d) Less Than Significant

Temporary construction activities could generate fugitive dust from the operation of construction equipment. The project will comply with construction standards adopted by the South Coast Air Quality Management District (SCAQMD) as well as Caltrans standardized procedures for minimizing air pollutants during construction.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs), the BMPs in the stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize fugitive dust during construction.

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

Regulatory Setting

Wetlands and Other Waters

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 US, including wetlands. Waters of the US 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 US Army Corps of Engineers (USACE) with oversight by the US Environmental Protection Agency (US 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 US 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 US EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the US) 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 US, 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 Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable 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 US. This is most frequently required in tandem with a Section 404 of the CWA permit request.

Plant Species

The US 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).

This section of the document discusses all other special-status plant species, California Native Plant Society (CNPS) rare 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. Caltrans 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.

Animal Species

Many state and federal laws regulate impacts to wildlife. The US Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), 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 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS. The proposed project area is outside of the National Marine Fisheries Service jurisdiction.

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

Threatened and Endangered Species

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 Caltrans, as assigned), are required to consult with the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion 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 to 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 to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Invasive Species

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.

Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) was developed to ensure the conservation and coordinated preservation 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 westernmost bridge sites, Krume Ditch Bridge (PM R92.9), Beta Ditch Bridge (R93.63), and Tecka Ditch Bridge (R94.73), fall within the CVMSHCP. The construction activities proposed at these sites are considered covered activities under Sections 7.2.2 and 7.3.1.1 of the

CVMSHCP. Thus, these three bridge sites were not biologically assessed for the purpose of the biological resources sections “a” and “b” discussed below,

Biological Setting

A Natural Environment Study (Minimal Impacts) was approved December 30, 2019 and was utilized as the basis for the following determinations.

Over twenty listed, special status, sensitive, or rare animal and/or plant species that could potentially be found within the project vicinity (appendix A, table 1) were compiled from the USFWS Information Planning and Conservation (IPaC) system (2019), CDFW California Natural Diversity Database (2019), and California Native Plant Society botanical records (2019).

The proposed project is located entirely within the Colorado subdivision of the Sonoran Desert biome of southeastern California.

Field reviews included a survey of a biological study area (BSA) at each of the nine easternmost bridge sites located from PM R96.5 to R101.14 that are outside of the CVMSHCP. The BSA at each of these sites consisted of the project impact area along with the surrounding area within 500 feet. Surveys for special status plants and vegetation communities were conducted on May 28 and 29, 2019. Protocol desert tortoise survey were also conducted on May 28 and 29, 2019. An informal bat habitat assessment was conducted at several of these bridge sites on December 10, 2019.

The dominant vegetation communities within the BSA are consistent with blue palo verde – ironwood woodland, creosote bush – white burr sage scrub, and smoke tree woodland (also known as desert willow – smoke tree wash woodland). Seventy-four (74) plant species were observed in the BSA (appendix A, table 2). Dominant perennial (year-round) plant species detected in the BSA included blue palo verde, ironwood, smoke tree, creosote bush, white bursage, cheesebush, brittlebush, and catclaw. Two special status plant species, Alverson’s foxtail cactus and Utah vine milkweed, were also found.

A total of twenty-three (23) animal vertebrates were either directly observed or detected through presence of signs on the project site (appendix A, table 3). These included: seven (7) reptiles, nine (9) birds and seven (7) mammals. Many are common, year-round residents of the Mojave Desert. Some of the birds, however, are species that breed elsewhere in the United States and/or Canada and were migrating through the area. Representative wildlife species included side-blotched lizard, Great Basin whiptail, mourning dove, common raven, white-tailed antelope ground squirrel, coyote, and the federally- and state-threatened desert tortoise.

CEQA Significance Determinations for Biological Resources

a) Less Than Significant with Mitigation Incorporated

Special Status Plant Species

The removal of RSP for the proposed project has the potential to directly impact Alverson’s foxtail cactus and Utah vine milkweed, which are designated by the California Native Plant Society as sensitive status plant species. Six individuals of this cactus and one individual of this milkweed were found on this project site. Removal of these species will be avoided by delineating their locations as environmentally sensitive areas (BIO-1). If the species cannot be

avoided, then transplantation may be utilized (BIO-2). Indirect impacts to the species include habitat conversion through the introduction of invasive species and is addressed in avoidance and minimization efforts.

Special Status Avian Species and Migratory Birds

The BSA contains suitable habitat for listed avian species and migratory birds so they could be affected by the proposed project. Bird species have suitable habitat near the various wash areas in the form of desert wash and desert scrub. Yet, the proposed project will have "no effect" on federally and state endangered least Bell's vireo or southwestern willow flycatcher since the dense riparian habitat (habitat found along streams or rivers) that they need is not present in the BSA. However, occurrences have been recorded near Desert Center for two special status species, Crissal thrasher and Le Conte's thrasher.

Project activities would be constrained to the roadway shoulder and immediate area thereof to perform project activities; therefore, the likelihood that any bird species' nests and habitat would be directly affected by the project is minimal. Yet, because the proposed project may contribute to temporary increased noise levels or vegetation removal around the project site during construction, pre-construction nesting bird surveys would be conducted (BIO-3).

Bats

Eighteen (18) of the twenty-five (25) bat species found in California are categorized as either sensitive or species of special concern by USFS or CDFW. Roosting habitat includes hollow trees, loose slabs of bark, bridges, culverts, fissures of cliffs, and rock outcrops. Habitat found along streams or rivers and insect fauna found in these areas may provide foraging habitat for a large number of bat species.

Marginal foraging habitat is present within the desert wash corridors of the BSA. Bridge roosting habitat has a very low potential based on the bridge design - all bridge structures are a reinforced concrete continuous slab with no hinges, joints, or weep holes. RSP that is present on site is degraded. No bats or bat signs were observed on site during any of the surveys.

Due to the poor quality of roosting and foraging habitat, no further surveys are warranted at this time; however, impacts to bat species could include temporary indirect disturbance (such as noise, dust, night lighting, and human encroachment) during construction activities. Impacts due to the proposed project would be addressed by directing artificial lighting at the work site only (BIO-4), and by implementing Caltrans standard best management practices (BMPs), the BMPs in the project's stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version).

Desert Tortoise and Desert Tortoise Critical Habitat

The proposed project site is located within the geographic range of and contains suitable habitat in the form of Mohavean desert scrub for the federal and state-listed threatened desert tortoise. No live desert tortoises were observed on the nine BSA sites; however, tortoise sign detected within the BSAs included a carcass at the Union Ditch Bridge (PM R97.81) site and a potential burrow at the Wide Ditch Bridge (PM R101.1) site. No desert tortoise tracks, scat, eggshell fragments, drinking depressions or courtship rings were detected.

Proposed project activities would be constrained to the roadway shoulder and median, as well as the wash/ditch area; therefore, the likelihood that desert tortoise habitat would be directly

affected by the proposed project is minimal and will not reduce, alter or modify the overall population or lead towards habitat degradation of the desert tortoise. Furthermore, the proposed project activity at each of the nine easternmost bridge sites (PM R96.5 to R101.14) is a covered (allowed) action per the Programmatic Biological Opinion (8-8-10-F-59) Type 2 Project on the California Department of Transportation's Small Projects and Operational Improvement Activities in Desert Tortoise Habitat in Imperial, Riverside, Inyo, Eastern Kern, Los Angeles, and San Bernardino Counties, California. In addition, the proposed project activity at the three easternmost bridge sites is also a covered activity under the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). Caltrans has determined that the project "no effect" to USFWS designated desert tortoise critical habitat since project impact areas are confined to the existing disturbed state property.

The proposed project impacts are minimal; however, given that the project is located adjacent to suitable habitat and no physical barriers are present to constrict movement of the desert tortoise, the project "may affect, is likely to adversely affect" the desert tortoise itself. Since desert tortoises are known in the area and may transverse the project area, a variety of avoidance and minimization measures (BIO-5 to BIO-13) would be implemented along with carrying out Caltrans standard best management practices (BMPs), the BMPs in the project's stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version)

Fisheries

The project is not located within a National Marine Fisheries Service Jurisdictional Area Impacts to fisheries are not anticipated.

b) Less Than Significant Impact

Only the three following natural communities that were found within the BSA are ranked by CDFW as sensitive native plant communities: Creosote bush – white burr sage scrub, Blue palo verde – Ironwood woodland, and smoke tree woodland (also known as desert willow – smoke tree wash woodland). The most sensitive community, smoke tree woodland, has a CDFW sensitivity ranking of G4 S3 and was found in the BSAs of Shanty Ditch Bridge (PM R97.33) and Union Ditch Bridge (PM R97.81).

Project activities include vegetation removal and the use of construction equipment to conduct bridge work. Removal of these habitats will be avoided, as feasible. Indirect impacts such as water quality and litter control are addressed through avoidance and minimization efforts. Caltrans Standard BMPs, the BMPs in the SWPPP, and 2018 Standard Specifications (or latest version) will be implemented to minimize effects during construction. This proposed project area contains no riparian habitat or sensitive natural communities.

c) No Impact

The proposed project area occurs within two different watersheds, Hayfield Dry Lake and Palen Dry Lake. For the three western-most bridge sites at PM R92.9 through PM R94.7, the receiving waters are unnamed ephemeral drainages that flow north and northwest for approximately one mile before reaching Hayfield Dry Lake. For the nine eastern bridge sites at PM96.5 through PM 101.1, the receiving waters are unnamed ephemeral drainages that flow northeast for approximately twenty-two miles before reaching Palen Dry Lake.

On May 28 and 29, 2019, surveys to delineate jurisdictional wetlands and other waters were conducted in BSAs established for each of the twelve bridge ditches/drainages. The surveys determined that areas of all twelve ditches fall within the jurisdiction of the Colorado River Regional Water Quality Control Board (CRRWQCB) and the CDFW. The proposed project would require a waste discharge report to be submitted to the CRRWQCB. A CDFW Section 1602 (Fish and Game Code) Streambed Alteration Agreement would also be required for the proposed project.

Since the ditches of the proposed project drain into dry lakes, they are not regulated by the US Army Corps of Engineers (ACOE). Thus, the proposed project would not need a Clean Water Act Section 404 or a 401 permit. However, the project would require a USACE Approved Jurisdictional Delineation (AJD). The project will report of waste discharge to the CRRWQCB to be submitted mid 2021. Conditions imposed by the CRRWQCB are unknown at this time.

Direct effects on these waters include the loss of vegetation from direct removal due to site preparation activities such as 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 1) sediment entering drainage areas from vegetation clearing and/or 2) invasive, non-native plants transported into areas along the roadway. Caltrans Standard BMPs, the BMPs in the SWPPP, and 2018 Standard Specifications (or latest version) will be implemented to minimize such effects during construction.

Proposed project impacts to jurisdictional areas will be mitigated and coordinated with the CRRWQCB and CDFW during the permitting process. It is anticipated that the proposed project would require a minimum 1:1 ratio that would be applied to any permanent impacts of jurisdictional waters to be paid in the form of onsite restoration, in-lieu fee, mitigation bank credit, or land acquisition.

d) Less than Significant Impact

A major reason for regional declines in native species is the pattern of habitat loss. Species that once moved freely through a mosaic of natural vegetation types are now confronted with a manmade labyrinth of barriers that fragment formerly expansive natural landscapes. Roads, railroads, canals, urbanization – especially massive new renewable energy projects – are the major obstacles to wildlife movement in the California deserts. Populations of many species of concern are becoming increasingly isolated from one another, leading to reduced genetic diversity and risk of being completely killed off.

This proposed project will only minimally affect any migratory wildlife corridors or the movement of any native resident or wildlife species for approximately the duration of the project which would last for about sixteen (16) months. In addition, each ditch site would require constructions activities for only approximately one month from start to finish. The proposed project would not impede the use of native wildlife nursery sites.

e) No Impact

The closest local community is over 2.5 miles away. The proposed project does not anticipate any conflicts with local policies or ordinances protecting biological resources.

f) Less than Significant Impact with Mitigation Incorporated

The westernmost three bridge sites from post mile 92.9 to 94.73 fall within the CVMSHCP and are considered covered activities under *Section 7.2.2* and *7.3.1.1*. Thus, 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* at these three bridge sites. 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 these lands. Additionally, Caltrans will request a streamlined biological opinion and comply with the applicable avoidance and minimization measures described in the *CVMSHCP Section 4.4* for Covered Activities to minimize the project's potential effect on the biological resources of the area. This project will not conflict with the provisions of the CVMSHCP, or any other approved local, regional, or state habitat conservation plan.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs), the BMPs in the stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

BIO-1 ESA Fencing: To protect the sensitive habitat, delineate this area as an ESA as shown on the plans.

BIO-2 Transplantation: If Alverson's foxtail cactus or Utah vine milkweed cannot be avoided, the biologist will translocate this species outside of the construction work zone and delineate appropriately.

BIO-3 Preconstruction Nesting Bird Survey: If construction occurs within nesting bird season (Feb 1 – Sept 30), conduct pre-construction nesting bird surveys before construction to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer will be established and monitored at the discretion of the qualified biologist.

BIO-4 Lighting: Artificial lighting shall be directed at the work site only.

BIO-5 Biological Monitor: A qualified biologist will be designated who will oversee compliance of all protective measures and will notify the resident engineer of project activities that are not compliant. The resident engineer must stop work until the protective measures are implemented.

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

BIO-7 Pre-construction Clearance Survey for Desert Tortoise Survey: Immediately prior to the start of any ground-disturbing activities and prior to the installation of any desert tortoise exclusion fencing, clearance surveys for the desert tortoise will be conducted by the biologist, as appropriate. The entire project area will be surveyed for desert tortoise and their burrows by the qualified biologist before the start of any ground disturbing activities.

BIO-8 Temporary Desert Tortoise Fencing: Temporary exclusion fencing will be installed outlining the perimeter of any construction staging, storage or batch plant areas to prevent entry by desert tortoises into the work site. Exclusion fencing will be installed following USFWS guidelines (2005) or more current protocol. The biologist will ensure that desert tortoises cannot pass under, over, or around the fence. The biologist must regularly check the fenced area and make any necessary repairs should it become damaged.

BIO-9 Desert Tortoise under Vehicles and/or Equipment: The qualified Biologist and project personnel shall carefully check regularly under parked vehicles or equipment for desert tortoises before moving any vehicles or equipment. Desert tortoises found within the staging and/or construction areas will be allowed to move away from such areas to a location away from danger, on their own accord. Workers will not be allowed to capture, handle, or relocate tortoises. Project activities shall re-commence only once the desert tortoise is safely outside the project areas or required protected areas.

BIO-10 Desert Tortoise in Work Area: If at any time a desert tortoise is observed in the ROW, the qualified biologist will have the authority to halt any activity, through the Resident Engineer or other identified authority in charge of implementation, that may pose a threat to desert tortoises and to direct movements of equipment and personnel to avoid injury or mortality to desert tortoises.

BIO-11 Injured Desert Tortoise: The qualified biologist will inform USFWS and CDFW of any injured or dead tortoises found on site (verbal notification within 24 hours and written notification within 5 days).

BIO-12 Desert Tortoise Monitoring Reports: The qualified biologist will conduct on-site monitoring and submit monitoring reports for desert tortoise and during construction.

BIO-13 Predation Prevention: Workers are prohibited from feeding all wildlife.

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?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			X	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?				X

Regulatory Setting

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 Caltrans to inventory state-owned structures in its rights-of-way.

Cultural Resources Setting

An Historic Property Survey Report (HPSR) was approved for this project 01/10/2020. The report determined A Finding of No Adverse Effects without (Standard Conditions) for the proposed project.

The Desert Training Center/California-Arizona Maneuver Area (California Historical Landmark #985), DTC/C-AMA (CHL-985), is presumed to be eligible for the National Register of Historic Places (NRHP) for the current undertaking only, pursuant to Stipulation VIII.C.4 of the Caltrans Section 106 of the National Historic Preservation Act (PA). On November 4, 2019, the Cultural

Studies Office (CSO) approved these assumptions of eligibility for the purposes of the undertaking due to the large property size.

Caltrans professionally qualified staff has determined that there are resources in the project area that are historical resources for the purposes of CEQA.

The following properties within the project area are considered eligible for inclusion in the NRHP and/or CHLs for the purposes of this project only because evaluation was not possible, in accordance with Section 106 PA Stipulation VIII.C.4 and as applicable Public Resource Code (PRC) 5024 MOU Stipulation VIII.C.4.

Desert Training Center

The Desert Training Center/ California-Arizona Maneuver Area (DTC/C-AMA) is a historic-period military training/maneuver area. This Historic Property stretches from Indio, California eastward toward Prescott, Arizona and from Yuma, Arizona to Searchlight, Nevada covering approximately 18,000 square miles. The entirety of the project area is encompassed by the DTC/C-AMA, however, there are no features or artifacts of the DTC/C-AMA within the project area.

The DTC/C-AMA was listed on the California Register of Historic Places (CRHP) as a California Registered Historical Landmark (#985) June 12, 1989. On November 4, 2019, due to its large size and the project unlikely potential to effect, the DTC/C-AMA, was assumed eligible for listing on the NRHP per Stipulation VIII.C.4 of the PA, with significance under: Criterion A for its association with World War II; Criterion B for its association with General George S. Patton; Criterion C for the design and layout of the individual camps, tactical maneuver areas, firing ranges, and other associated features; and Criterion D for the data potential of the entirety of the DTC/C-AMA. The period of significance is 1942 to 1944.

Tank tracks associated with DTC/C-AMA are the only contributing elements of the DTC within the project area. The project does not anticipate to materially alter or compromise the historical significance of the historic property located within and adjacent to the project area. The project work areas have been reduced in order to avoid effects to the DTC. As such, the identified tank tracks contributing to CHL-985: DTC/C-AMA are now located outside the project area and will be protected from all direct effects through establishment of an environmentally sensitive area (ESA) and monitoring. Inside of the ROW fence the level of disturbance is high due to previous maintenance and interstate construction. No definitive tank racks were identified within the Caltrans ROW fencing and were only observed outside of the fencing within desert pavement. The establishment of an Environmentally Sensitive Area (ESA) within Caltrans' right of way will protect the features within the right of way in place and preserve its ability to convey its significance. Accordingly, Caltrans proposes a Finding of No Adverse Effect with Non-Standard Conditions (FNAE) appropriate for this project. State Historic Preservation Officer concurred with these findings on February 20, 2020. The proposed project does not anticipate affecting contributing features of the DTC/C-AMA (tank tracks). The DTC/C-AMA will be protected in place and will retain all of its NRHP/CRHP eligibility.

CEQA Significance Determinations for Cultural Resources

a,b) Less Than Significant Impact

The proposed project would cause a less than significant change in the significance of a historical or archaeological resource pursuant to §15064.5.

c) No Impact

The proposed project would not disturb any human remains, including those interred outside of dedicated cemeteries.

Avoidance, Minimization, and/or Mitigation Measures

CR-1 Buried Cultural Resources: 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 Human Remains: In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

CR-3 Environmentally Sensitive Areas (ESA)**:** There shall be designated ESA, where all project-related activities or inadvertent disturbances shall be prohibited.

CR-4 Archaeological Monitor: There shall be intermittent monitoring by an archaeological monitor through the life of the project to ensure compliance with ESAs.

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

Regulatory Setting

The California Environmental Quality Act (CEQA) Guidelines section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

CEQA Significance Determinations for Energy

a) No Impact

Caltrans implements best management practices (BMP's) to prevent wasteful, inefficient, or unnecessary consumption of resources during construction or operation.

b) No Impact

The proposed project does not conflict with any known state or local plan for renewable energy or energy efficiency. Therefore, there will be no impacts.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs) and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

TR-2 Traffic Management Plan (TMP): A TMP will be implemented to minimize traffic delays and associated idling, which unnecessarily uses gasoline, during construction

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.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?				X
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?				X
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?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

Regulatory Setting

Topographic and geologic features are 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 Caltrans' Seismic Design Criteria (SDC).

CEQA Significance Determinations for Geology and Soils

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

According to the 2003 Riverside County General Plan, the proposed project site is located 1) at about one half to one mile away of an active quaternary fault, also known as a Alquist-Priolo Earthquake Fault Zone, 2) in an area of low to moderate liquefaction risk, and 3) in an area with a slope angle at less than 15% with no defined landside risk. The proposed project would not create or repair any structures and is also expected to only require a maximum excavation of about ten feet in each drainage, which are relatively flat, and not on any slopes. Therefore, the proposed project is not expected to cause rupture of an earthquake fault, strong seismic ground shaking, any seismic-related ground failure (including liquefaction), or any landslides.

b) Less Than Significant Impact

State jurisdiction requires that an approved Storm Water Pollution Prevention Plan (SWPPP) be prepared for projects that involve greater than one acre of disturbance. Because the proposed project would disturb 30 acres of land due to clearing and grubbing activities, a SWPPP would be completed and implemented for this project. The SWPPP would specify best management practices (BMPs) that would minimize erosion and keep all products of erosion from moving off site into receiving waters.

Earthwork in the project area would be performed in accordance with the most current edition of the Caltrans Standard Specifications, the project SWPPP, and the requirements of applicable government agencies; therefore, the proposed project would create a less than significant impacts.

c) No Impact

According to the 2003 Riverside County General Plan[1], the proposed project site is located 1) at about one half to one mile away of an active quaternary fault, also known as a Alquist-Priolo Earthquake Fault Zone, 2) in an area of low to moderate liquefaction risk, and 3) in an area with a slope angle at less than 15% with no defined landside risk. The proposed project would not create or repair any structures, and is also expected to only require a maximum excavation of about ten feet within each relatively-flat drainage and not on any slopes. Thus, the proposed project is not expected to create instability on a geologic unit or soil, or cause any on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

d) No Impact

According to the Caltrans Water Quality Tool (2020), the proposed project is located in an area consisting of alluvium, lake, playa, and terrace deposits that are unconsolidated and consolidated. Although the soil within the project area was not analyzed for expansion qualities, the proposed project would not be creating any permanent structures that may otherwise be affected by expansive, soils that absorb water, like smectite clay. Thus, the proposed project would not create any substantial direct or indirect risks to life or property.

e) No Impact

The proposed project would not require the need for any waste water disposal systems so neither the project nor the soil would impact the use of a waste water disposal system.

f) No Impact

The proposed project is expected to only require a maximum excavation of about ten feet in each recently disturbed drainage and not on any slopes, so the project would not directly or indirectly impact a unique paleontological resource or site or unique geologic feature.

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

CEQA Significance Determinations for Greenhouse Gas (GHG) Emissions

a) Less Than Significant Impact

While the proposed project would result in GHG emissions during construction, it is anticipated that the project would not result in any increase in operational GHG emissions. With implementation of construction GHG-reduction measures, the impact would be less than significant.

b) No Impact

The project does not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of greenhouse gases.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs) and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

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?				X
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?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

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.

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.

CEQA Significance Determinations for Hazards and Hazardous Materials

a) No Impact

The proposed project is not anticipated to require the transportation or disposal of hazardous materials, so the project would not create a significant hazard to the public in this manner.

b) Less Than Significant with Mitigation Incorporated

The following hazardous waste databases were searched to determine if there were any hazardous waste sites near the proposed project site: Cortese List databases (2020), Geotracker (2020), and Envirostore (2020). These databases are provided by the California Environmental Protection Agency, State Water Resources Control Board, and Department of Toxic Substances Control respectively. Although soils next to roadways can exhibit high concentrations of lead due to tailpipe exhaust from vehicles using leaded gasoline before 1992, no studies had been conducted to assess the amount of aerially deposited lead (ADL) in the soil within the proposed project limits. No other potential hazardous waste sites, such as unexploded ordnances (ammunition), were identified within 0.5 mile of the project site.

Since soil would be displaced during construction of the dirt access roads and no previous aerially deposited lead (ADL) studies in the area had been conducted, an ADL investigation would be required for the proposed project. This ADL investigation would be performed before and during construction to determine if ADL was present in the soil within the proposed project construction area. If the soil at the proposed project site was found to contain lead at unacceptable levels, a lead compliance plan would be required and implemented to minimize the possible hazardous exposure of lead to workers (HW-1).

c) No Impact

The closest school to the proposed project site is Eagle Mountain Elementary, which is located over 10 miles away in Eagle Mountain, and no communities exist within a quarter mile of the project, so the project would not be expected to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) No Impact

No potential hazardous materials sites, such as unexploded ordnances (ammunition), were identified from the California Environmental Protection Agency Cortese List databases, which are compiled pursuant to Government Code Section 65962.5, within 0.5 mile of the proposed project site. Thus, the project is expected create no hazard or impact to the public or the environment regarding the disturbance of any previously identified hazardous material sites.

e) No Impact

The proposed project is not within two miles of an airport or an airport use plan, and there are no habitable structures within 2.5 miles of the proposed project, thus, the project would not result in a safety hazard or excessive noise for any people residing or working near the project

area.

f) Less Than Significant Impact

The proposed project would require several temporary lane closures, so a traffic management plan will be prepared and coordinated with local emergency responders (TR-1). However, the proposed project would not require any road closures or detours and, thus, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) No Impact

According to the 2020 map by CalFire's Fire and Resource Assessment Program (https://egis.fire.ca.gov/FHSZ/), the proposed project area is located within local responsibility and federal responsibility areas, so this area is not indicated as a CalFire fire hazard severity zone. In addition, the project itself would not introduce any new structures to the area that would increase the risk of wildfire.

Caltrans standard plans include provisions to prevent construction-related fire such as following Cal Fire guidelines for equipment use, control of flammable materials, use of fuel breaks, and fire monitoring when fire danger ratings are "very high" or "extreme", or "red flag" warnings are issued, as provided in Caltrans Standard Plan section 7-1.02M(2). Thus, the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs), the BMPs in the stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

HW-1 ADL Investigation**:** An ADL investigation would be performed before and during construction to determine if aerially deposited lead (ADL) was present in the soil within the proposed project construction area; if the soil was found to contain lead at unacceptable levels, a lead compliance plan would be required and implemented.

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?				X
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
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;				X
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;				X
(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				X
(iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Regulatory Setting

Water Quality and Stormwater Runoff

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 US, like groundwater and surface waters not considered waters of the US. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

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

State Water Resources Control Board and Regional Water Quality Control Boards

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

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of 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 Caltrans as an owner/operator of an MS4 under federal regulations. The Caltrans MS4 permit covers all Caltrans 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 Caltrans MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

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

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

3. Caltrans 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, Caltrans 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 Caltrans 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 Caltrans 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 Caltrans' SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the US 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.

Hydrology and Floodplain

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.”

Affected Environment

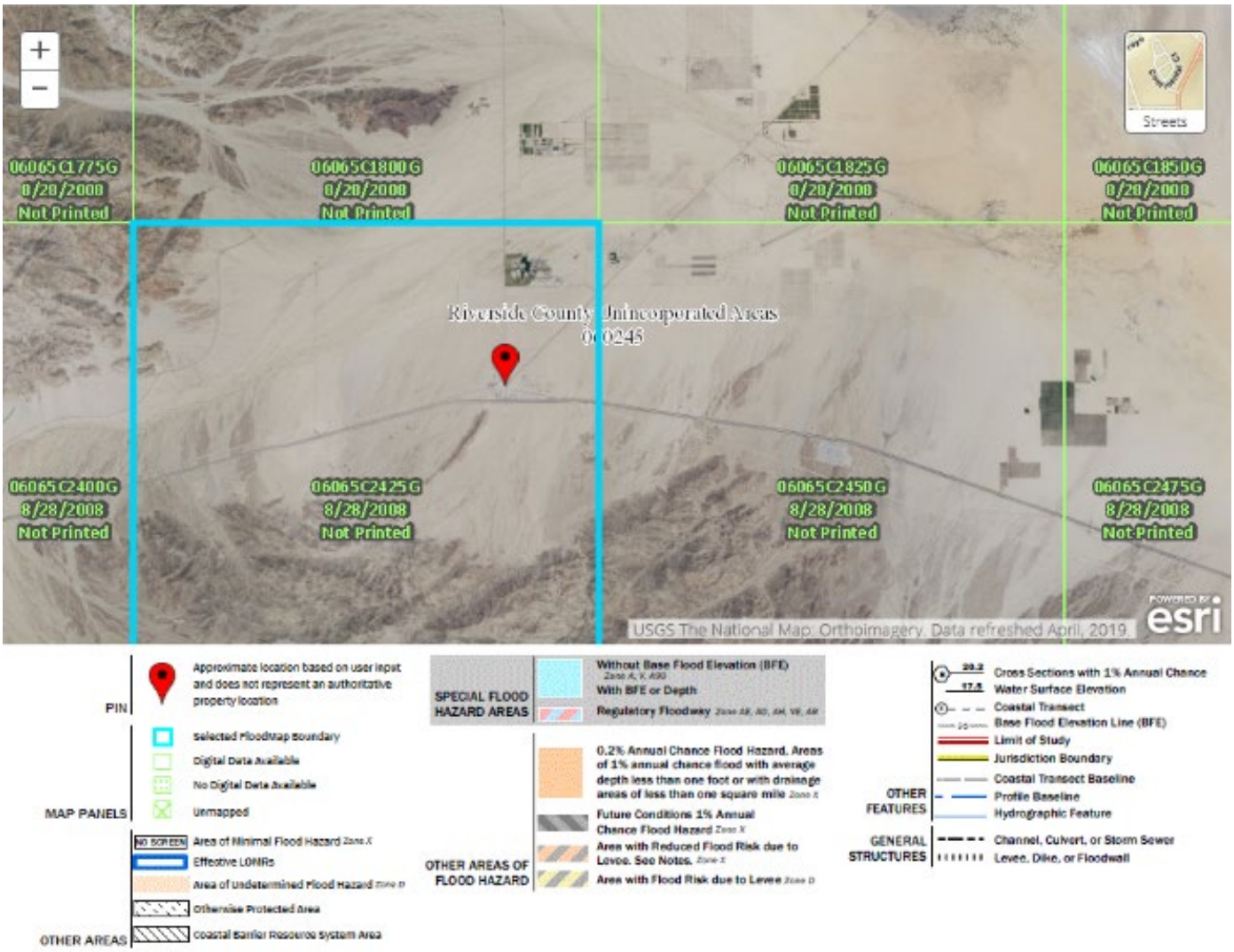
The *California Desert Hydrology Report for Determination of Design Floods for Bridge Scour Mitigation* (March 2020) was prepared for this project. The main drainage feature in the project area of eastern Riverside County along this segment of Interstate 10, which runs from approximately seven miles east of Chiriaco Summit to four miles west of Desert Center (PM 92.9 To PM 101.1) is a succession of normally dry desert washes. These washes allow passage of stormwater under the roadway, as well as collect sheet flow from the I-10 center median area and shoulders, directing it out to the surrounding desert.

The washes Krume Ditch, Beta Ditch, Tecka Ditch, Irolo Ditch, Ajax Ditch, Shanty Ditch, Union Ditch, Bula Ditch, Taro Ditch, Adair Ditch, Hillock Ditch and Wide Ditch generally flow

northward or northeastward from the project site, ultimately terminating in flat, desert playas some ½ to 1 ½ miles north of Interstate-10, ending on the Chuckwalla Valley floor and eventually draining into Hayfield Dry Lake and Palen Dry Lake.

As illustrated on figure 4, the project site is in unincorporated Riverside County and falls within the Federal Emergency Management Agency (FEMA) Map Number 06065C2425G, dated 9/28/2008. The project is not within a FEMA mapped floodplain. It is located in an area classified by FEMA as “Zone D”, which is an “Area of Undetermined Flood Hazard”. This designation is defined as “areas in which flood hazards are undetermined, but possible”.

FEMA Flood Plain Map



Topography

The project area is located within the Chuckwalla Valley of California’s Sonoran Desert region, and extends from approximately seven miles east of Chiriaco Summit to four miles west of

Desert Center. The eastern part of the project area is located within the USGS Desert Center quadrangle, and the western part is located within the Hayfield Springs quadrangle.

Interstate 10 passes through a relatively flat desert basin in the project area, bounded by the Eagle Mountains on the north, and the Orocopia Mountains and Chuckwalla Mountains on the south. The surrounding terrain generally slopes northward or northeastward from the project site. The project area in the vicinity of Desert Center is approximately 906 feet above mean sea level.

Hydrology

The major drainage courses in the project area are a series of normally dry desert washes which have unpredictable intermittent flow primarily in the summer months, resulting from the movement of monsoonal tropical air from the south. This monsoonal moisture results in summer convective thunderstorms which can cause flood-producing runoff in the project area.

The headwaters of these washes originate on the slopes of the Orocopia Mountains and the Chuckwalla Mountains, south of Interstate-10 between Chiriaco Summit and Desert Center. Summer thunderstorms can result in heavy rainfall in the desert and adjacent mountains, the runoff flowing downstream through the desert washes that ultimately terminate on the Chuckwalla Valley floor at Hayfield Dry Lake approximately ½ to 1 ½ miles north of the project site, and Palen Dry Lake approximately 22 miles northeast of the project site.

Groundwater Hydrology

According to the California Department of Water Resources (DWR), groundwater depth within the project area varies from approximately 235 feet below ground surface to approximately 400 feet below ground surface. The excavation depth of the project is approximately 11 feet or less; it is therefore not expected that groundwater will be affected by the project.

Geology/Soils/Soil Erosion Potential

Hydrologic soil group D dominates the project area. These soils have a high runoff potential when saturated. Water movement through the soil is restricted. Group D soils typically have greater than 40 percent clay and less than 50 percent sand. These soils are highly susceptible to scouring from storm runoff originating in the nearby mountains and dispersed across the basin floor in numerous desert washes that ultimately terminate in flat desert playas.

The Project will replace existing rock slope protection at the bridges over these waterway crossings to prevent future scour damage and preserve the integrity of the bridge foundations. The replacement rock slope protection is designed based on the velocities associated with the 200-year flowrates. The rock slope protection can tolerate more severe flood conditions than what usually occurs. Replacement of the existing rock slope protection will prevent future scour damage and preserve the integrity of the bridge foundations.

According to The Federal Highway Administration’s Hydraulic Engineering Circular-18 (HEC-18), the scour design flood frequencies are larger than the hydraulic design flood frequencies because there is a reasonably high likelihood that the hydraulic design flood will be exceeded during the service life of the bridge. Accordingly, considering the hydraulic design flood frequency of 1 in 100 years, the proposed rock slope protection is designed based on the velocities associated with the 200-year flowrates. The proposed hydraulic design of the Project will therefore accommodate the 200-year frequency flood.

Watershed Characteristics and Beneficial Uses

The project area occurs within two watersheds, Hayfield Dry Lake and Palen Dry Lake. The receiving waters for washes from post mile R92.9 through post mile R94.7 are several unnamed ephemeral drainages that flow north and northwest for approximately 1 mile before reaching Hayfield Dry Lake. The receiving waters for washes from post pile 96.5 through post mile 101.1 are a series of unnamed ephemeral drainages that flow northeast for approximately 22 miles before reaching Palen Dry Lake.

The Water Quality Control Plan for the Colorado River Basin (Plan) is designed to protect the beneficial uses of all regional ground and surface waters in the region. The Plan identifies three beneficial uses for ephemeral surface waters in the Chuckwalla hydrologic unit: GWR (ground water recharge), REC II (non-contact water recreation), and WILD (wildlife habitat). Beneficial uses of groundwater in the Chuckwalla HU includes MUN2 (municipal and domestic supply), IND (industrial service supply), and AGR (agriculture supply).

Environmental Consequences

Build Alternative

The Build Alternative would not support incompatible floodplain development. The purpose of the project (replacement of existing rock slope protection at the bridges over the above-named water crossings) is to prevent future scour damage and to reduce the velocity and/or energy of storm water flows to non-erosive levels prior to downstream discharge, thereby preserving the integrity of the bridge foundations. To this end, the project would be designed to maintain the existing flow patterns throughout the project limits. Furthermore, temporary BMPs for construction activities will be implemented prior to construction begins to ensure that no hydrologic impacts to the downstream receiving waterbodies will occur and there will be no violation of water quality standards.

This will be achieved by sizing of the proposed scour protection for the 24 bridges based on the depth and velocities associated with the 200-year flow rates simulated by the hydrologic models. In determining the design peak flow rates, the hydrologic models utilize the most current rainfall dataset available from NOAA. Utilizing these models, along with parameters for peak storm flow estimates determined based on guidelines presented in the Highway Design Manual, as well as guidelines provided in the Federal Highway Administration’s Hydraulic Engineering Circular-18 will ensure that the project will not induce downstream flooding and will not deflect flows from their natural courses.

The temporal distributions corresponding to both the 6-hour convective storm and the 24-hour general storm were analyzed based on the project-area watershed. The sizing of the proposed scour protection based on the above-referenced parameters is expected to tolerate more severe flood conditions than what usually occurs. The replacement of existing rock slope protection will therefore prevent future scour damage and preserve the integrity of the bridge foundations with no impact to downstream hydrologic conditions.

The project to replace existing rock slope protection at the bridges over the above-named water crossings will not impede any flow or impair the ability of the washes to convey floodwaters associated with the region included in FEMA map number 06065C2425G. The project does not pose a potential risk to the natural and beneficial floodplain values because there is no encroachment into this region. Therefore the assessment level of risk is considered low and encroachment that would occur from implementation of the project is classified as minimal. The

project would not result in a significant encroachment into a floodplain as defined in 23 CFR 650.105.

Implementation of temporary best management practices (BMPs) for construction activities prior to beginning construction will ensure that no impacts to on-site hydrological conditions will occur, and that there will be no impacts to downstream receiving waterbodies and no violation of water quality standards.

CEQA Significance Determinations for Hydrology and Water Quality

The average rainfall for the area is 3.8 inches per year (Western Regional Climate Center, 2019). Weather data was recorded nearby in the city of Blythe. The study area occurs within two different watersheds, Hayfield Dry Lake and Palen Dry Lake. The three western-most study areas occur in the Hayfield Dry Lake watershed. Runoff from these study areas flow north and northwest for approximately 1 mile before reaching Hayfield Dry Lake. The 9 eastern-most study areas occur in the Palen Dry Lake watershed. Runoff from these study areas flow northeast for approximately 22 miles before reaching Palen Dry Lake

a) No Impact

The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality, as the purpose of the project is to mitigate potential erosion and the velocity and/or energy of existing storm water flows to non-erosive levels prior to downstream discharge. Furthermore, temporary BMPs for construction activity will be implemented prior to when construction begins. Hence, there will be no water quality issues that will arise from the proposed project.

b) No Impact

The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, as there will be no change in impervious surface and no change to the flow patterns of storm water discharges. Additionally, there will be no construction activities below groundwater and/or in water courses requiring dewatering or water diversion. The approximate depth to groundwater in the project area is 235 to 400 feet below ground surface. The excavation depth of the project is about 11 feet or less, ground water should therefore not be affected.

c)(i)(ii)(iii)(iv) No Impact

The project would not 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 result in substantial erosion or siltation on- or off-site, as there is no additional acreage of Post Construction Treatment Area. Additionally, the purpose of the project is to mitigate potential erosion and the velocity and/or energy of existing stormwater flows to non-erosive levels prior to downstream discharge. Therefore, no hydrologic impacts to the downstream receiving waterbodies will occur.

The project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, 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 impede or redirect flood flows, as there is no additional

acreage of Post Construction Treatment Area. There would therefore be no additional runoff originating from the project.

d) Less than Significant Impact

The project would not result in a flood hazard, tsunami, or seiche zone, or risk release of pollutants due to project inundation. The purpose of the proposed project is to mitigate potential erosion and the velocity and/or energy of existing storm water flows to non-erosive levels prior to downstream discharge. The entire project area is located in a FEMA Flood Zone D designated area, meaning that the area has not been analyzed for flood hazards, however it is not expected to increase the risk of flood hazard as the purpose of the proposed project is to mitigate the effects of such events.

e) No Impact

The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. a SWPPP will be developed and implemented such that storm water discharges and authorized non-storm water discharges will not cause or contribute to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan and/or applicable Basin Plan.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs), the BMPs in the stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

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?				X
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?				X

CEQA Significance Determinations for Land Use and Planning

a) No Impact

The proposed project area is not located within an established community. The communities of Desert Center and Chiriaco Summit are located four miles east and seven miles west of the proposed project site respectively. The project proposes to replace the existing RSP at 12 ditches. No new right of way is anticipated. Thus, the proposed project would not divide an established community.

b) No Impact

The proposed project would not conflict with any applicable land use, plan, policy, or regulation. No new right of way and/or land use changes are expected. The project does not anticipate any significant impacts.

Avoidance, Minimization, and/or Mitigation Measures

None

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?				X
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?				X

Regulatory Setting

The Surface Mining and Reclamation Act (SMARA) was framed to address the loss of regionally substantial material deposits to land uses that preclude mining. SMARA mandates a two-phased mineral resource conservation process called classification-designation. The California Division of Mines and Geology (CDMG) is responsible under SMARA for carrying out the classification phase of the process. The State Mining and Geology Board is responsible for the second phase, which allows the State Mining and Geology Board to designate areas in production-consumption region that contain substantial deposits of Portland cement concrete grade aggregate (valued for its importance in construction and versatility) that may be needed to meet the region's future demand.

CEQA Significance Determinations for Mineral Resources

a, b) No Impact

According to the 2015 Riverside County General Plan, there are no classified or designated mineral deposits of statewide, regional, or local significance located within the proposed project area. Thus, no impacts on mineral resources are anticipated to occur.

NOISE

Would the project result in:	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 the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Generation of excessive groundborne vibration or groundborne noise levels?				X
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Regulatory Setting

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 significance noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible.

Caltrans also conducts a noise analysis on a project if it would require a noise analysis under the National Environmental Protection Act (NEPA) 23 Code of Federal Regulations Part 772 (23 CFR 772).

CEQA Significance Determinations for Noise

a, b) No Impact.

The proposed project would not generate any permanent noise levels above the current noise levels and temporary noise levels would be minimal by complying with Caltrans' Standard Specifications and all local standards. No habitable structures exist within 2.5 miles of the project site, so no sensitive noise-receptors, like houses, exist within the vicinity of the project. The proposed project would not expose people to or generate temporary or permanent noise levels in excess of standards established in a general plan or noise ordinance, or other applicable standards. In addition, any groundborne noise or vibration would be limited to a construction period of about one year and not be excessive within the vicinity of the proposed project. The project is also a Type III project under 23 Code of Federal Regulations (CFR) 772.7; therefore, a noise study report was not required for the project. No noise impacts would be generated by the proposed project.

c) No Impact.

The proposed project is not within two miles of an airport or an airport use plan, and there are no habitable structures within 2.5 miles of the proposed project, thus, the project would not result in excessive noise for any people residing or working near the project area.

Avoidance, Minimization, and/or Mitigation Measures.

Caltrans Standard best management practices (BMPs) and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

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

Regulatory Setting

The California Environmental Quality Act (CEQA) requires the analysis of a project's potential to induce growth. The CEQA guidelines (Section 15126.2[d]) require that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

CEQA Significance Determinations for Population and Housing

a) No Impact.

The proposed project to replace existing RSP would not induce population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads), and would therefore have no impact.

b) No Impact

All work is anticipated to be done within Caltrans ROW. No residents or businesses would need to be relocated as a result of the proposed project activities. The proposed project would not require the relocation of any existing developments and/or people. Therefore, no impacts would occur.

Avoidance, Minimization, and/or Mitigation Measures

None

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?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

Regulatory Setting

In accordance with CEQA Guidelines, Environmental Checklist Form, Appendix G (XIII. Public Services), the effects of a project are evaluated to determine if they will result in a substantial adverse impact on the environment. A substantial impact would occur if the project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the need for new or physically altered governmental facilities, the construction of which could cause substantial environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including fire protection, police protection, or other public facilities.

CEQA Significance Determinations for Public Services

a) No Impact

The proposed project does not anticipate any adverse physical impacts due to new or altered government facilities or result in the need for new or altered government facilities. Detours or closures on I-10 during construction are not anticipated. In addition, no fire or police stations, schools, parks, or other public facilities are located within four miles of the proposed project site. The proposed project would not affect the response time or any other performance objective on any public services in the project area.

Avoidance, Minimization, and/or Mitigation Measures

TR-1 Traffic Management Plan: A traffic management plan will be prepared and coordinated with local emergency responders.

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?				X
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?				X

Regulatory Setting

In accordance with CEQA Guidelines, Environmental Checklist Form, Appendix G (XIV. Recreation), the effects of a project are evaluated to determine if they will result in a substantial adverse impact on the environment. A substantial impact would occur if the project would result in an increase in use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Impacts would also occur if the project were to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect of the environment.

CEQA Significance Determinations for Recreation

a) No Impact

No parks or other recreational facilities are located within four miles of the proposed project site. The proposed project would does not anticipate an increase in the use of any existing neighborhood parks, regional parks, or other recreational facilities such that physical deterioration of the facility would occur.

b) No Impact

The proposed project does not anticipate the construction or expansion of any recreational facilities.

Avoidance, Minimization, and/or Mitigation Measures

None

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?				X
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?				X
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Regulatory Setting

The traffic issues related to the proposed land use and development have been evaluated in the context of the California Environmental Quality Act (CEQA). Environmental impact thresholds as indicated in Appendix G of the CEQA Guidelines were also used in this analysis. The project would create a substantial impact if it would do one of the following: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrians and bicycle paths and mass transit, conflict with applicable congestion management program, result in a change to air traffic patterns, increase hazards due to a design feature, result in inadequate emergency access, or conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

CEQA Significance Determinations for Transportation

a) No Impact

The proposed project would not require any road closures or detours. Conflicts with any program, plan, ordinance or policy with the circulation system are not anticipated.

b) No Impact

The project is not a capacity increasing project and would not increase the “vehicle miles traveled.” Thus, the proposed project does not anticipate to conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b).

c) No Impact

The proposed project would only replace RSP in each ditch and not permanently affect any roadways or other transit facilities. Thus, the project does not anticipate any impacts by substantially increasing hazards due to geometric design features or incompatible uses.

d) No Impact

The proposed project does not anticipate any road closures or detours.

Avoidance, Minimization, and/or Mitigation Measures

TR-1 Traffic Management Plan: A traffic management plan will be prepared and coordinated with local emergency responders

TR-2 Traffic Management Plan**:** A traffic management plan will be implemented to minimize traffic delays and associated idling emissions during construction.

TRIBAL CULTURAL RESOURCES

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

Regulatory Setting

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 Caltrans to inventory state-owned structures in its rights-of-way.

Native American Consultation

According to the proposed project's Historic Property Survey Report (January 2020), no Native American sacred lands are located in the project study area and local Native American tribes were contacted to inform them of the proposed project. From January through December 2019, Caltrans corresponded with the following tribes and reservation: Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Chemehuevi Reservation, Colorado River Indian Tribes, Ramona Band of Cahuilla,

Santa Rosa Band of Cahuilla, Soboba Band of Luiseño Indians, and Twenty-Nine Palms Band of Mission Indians. The Agua Caliente Band of Cahuilla Indians and Twenty-Nine Palms Band of Mission Indians both requested more information on the project and were sent a project report. The Agua Caliente Band of Cahuilla Indians and Augustine Band of Cahuilla Indians asked to be notified if any cultural resources are found during the proposed construction; Caltrans agreed to notify these tribes if such resources are found. The Tribal Historic Preservation Officer of the Colorado River Indian Tribes requested monitoring during the cultural survey, but his request was denied and no further correspondence from the tribe has been received. As previously mentioned, the Twenty-Nine Palms Band of Mission Indians requested to review the project document and they were sent multiple copies of the project document; however, no further response from the tribe has been received. No other responses from the tribes have occurred to date.

CEQA Significance Determinations for Tribal Cultural Resources

a) No Impact:

There are no tribal cultural resources near or within the project study area.

b) No Impact:

There are no significant resources for any California Native American tribe identified near or within the proposed project study area.

Avoidance, Minimization, and/or Mitigation Measures

The Agua Caliente Band of Cahuilla Indians and Augustine Band of Cahuilla Indians will be made aware if any cultural resources are discovered during construction of the project.

CR-1 Buried Cultural Resources: 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 Human Remains: In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.

CR-3 Environmentally Sensitive Areas**:** There shall be designated Environmentally Sensitive Areas, where all project-related activities or inadvertent disturbances shall be prohibited.

CR-4 Archaeological Monitor: There shall be intermittent monitoring by an archaeological monitor through the life of the project to ensure compliance with ESAs.

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 or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
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?				X
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??				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

CEQA Significance Determinations for Utilities and Service Systems

a) No Impact: Construction of the project would not require or result in the need for new water or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities. No impacts would occur.

b) No Impact: The project would not require a water supply, as there are no existing entitlements or resources within the project area. No impacts would occur.

c) No Impact: The project would not require wastewater treatment. As a result, there would be no impact.

d) No Impact: The project would not generate solid waste in excess of state or local standards, or impair the attainment of solid waste reduction goals. No impacts are anticipated.

e) No Impact: The proposed project would be in compliance with all federal, state, and local solid waste statutes and regulations; therefore, there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs), the BMPs in the stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard 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?				X
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?				X
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?				X
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?				X

Affected Environment

According to the map by CalFire's Fire and Resource Assessment Program (https://egis.fire.ca.gov/FHSZ/), the proposed project area is located within local responsibility and federal responsibility areas, so this area is not indicated as a CalFire fire hazard severity zone.

According to the Wildfire Hazard Potential map (February 2020), which was developed by the USFS, the proposed project site has a "nonburnable" to "very low" wildfire hazard potential. The proposed project site is also over five miles away from any area with a "moderate" or higher wildfire hazard risk. The proposed project itself would also not introduce any new structures to the area that would increase the risk of wildfires.

Caltrans standard plans include provisions to prevent construction-related fire such as following Cal Fire guidelines for equipment use, control of flammable materials, use of fuel breaks, and fire monitoring when fire danger ratings are "very high" or "extreme," or "red flag" warnings are issued, as provided in Caltrans Standard Plan section 7-1.02M(2). The proposed project activities would all take place within Caltrans right-of-way.

CEQA Significance Determinations for Wildfire

a) No Impact

The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, there are no impacts.

b) No Impact

The proposed project would not exacerbate wildfire risks or expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a fire. Therefore, there are no impacts.

c) No Impact

The installation or maintenance of associated infrastructure is not part of the project scope. No impacts are expected.

d) No Impact

The project would not expose people or structures to significant risks, including downslope or down-stream flooding or landslides. As mentioned under the Geology and Soils section, the proposed project site is not within an area at risk for landslides.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard best management practices (BMPs), the BMPs in the stormwater pollution prevention plan (SWPPP), and 2018 Caltrans Standard Specifications (or latest version) will be implemented to minimize effects during construction.

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

CEQA Significance Determinations for Mandatory Findings of Significance

a) Less Than Significant with Mitigation Incorporated

The proposed project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species. Avoidance and/or minimization measures **BIO-1 through BIO-13,** and **HW-1** would be implemented to ensure the proposed project would result in less-than-significant impact with mitigation incorporated.

b) No Impact

The proposed project would not result in cumulatively considerable effects when combined with past, present, and reasonably foreseeable future projects and therefore would have no cumulative impact. As such, the proposed project is expect to result in no impacts.

c) No Impact

The proposed project would have no environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. As such, the proposed project is

expected to result in no impacts.

CHAPTER 3 - CLIMATE CHANGE

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

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

Two terms are typically used when discussing how we address the impacts of climate change: "greenhouse gas mitigation" and "adaptation." Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or "mitigate" the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

Regulatory Setting

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

Federal

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

The National Environmental Policy Act (NEPA) (42 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. Addressing these factors up front in the planning process will assist in decision-making and

improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making.

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

Energy Policy Act of 2005 (109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The US EPA[2] in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. The current standards require vehicles to meet an average fuel economy of 34.1 miles per gallon by 2016. EPA and NHTSA are currently considering appropriate mileage and GHG emissions standards for 2022–2025 light-duty vehicles for future rulemaking.

NHTSA and EPA issued a Final Rule for "Phase 2" for medium- and heavy-duty vehicles to improve fuel efficiency and cut carbon pollution in October 2016. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO_2 emissions by up to 1.1 billion metric tons over the lifetimes of model year 2018–2027 vehicles.

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

[2] US EPA's authority to regulate GHG emissions stems from the US Supreme Court decision in *Massachusetts* v. *EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, US EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions (US EPA 2009). U.S. Environmental Protection Agency (US EPA). 2009. *Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act*. https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean. Accessed: August 21, 2019

levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

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

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the governor's 2030 and 2050 GHG reduction goals.

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

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

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

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent ($MMTCO_2e$).[3] 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.

[3]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 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared “it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state’s greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.”

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

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.

SB 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.

Environmental Setting

The proposed project is in the undeveloped eastern portion of Riverside County, California, that is characterized by the open wilderness of the desert, and very little urban and suburban development. This stretch of I-10 from Dillon Road to the Arizona state line includes low- to medium-residential, agricultural, recreational and vacant undeveloped land uses. I-10 is the main transportation route for passenger, commercial, and military vehicles through the area. The nearest alternate route is State Route 62 which runs relatively parallel to I-10 at about 25 miles to the north.

The Southern California Association of Governments (SCAG) Regional Transportation Plan guides transportation development in Riverside County; however, the project is not a highway or road project, and would not affect transportation in the project area.

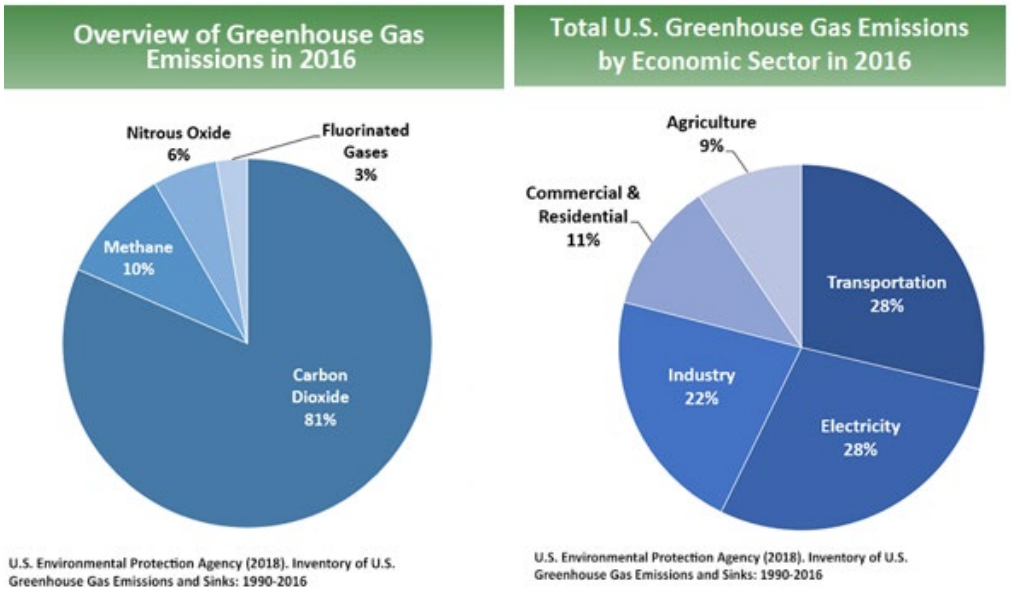
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG

emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. US EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4.

National GHG Inventory

The US EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990–2016 inventory found that of 6,511 $MMTCO_2e$ GHG emissions in 2016, 81% consist of CO_2, 10% are CH_4, and 6% are N_2O; the balance consists of fluorinated gases (EPA 2018). In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of US GHG emissions.

Figure 4-1 US Greenhouse Gas Emissions



State GHG Inventory

The California Air Resources Board (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 2019 edition of the GHG emissions inventory found total California emissions of 424.1 $MMTCO_2e$ for 2017, with the transportation sector responsible for 41% of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2017 despite growth in population and state economic output (ARB 2019a).

Figure 4-2. California 2017 Greenhouse Gas Emissions

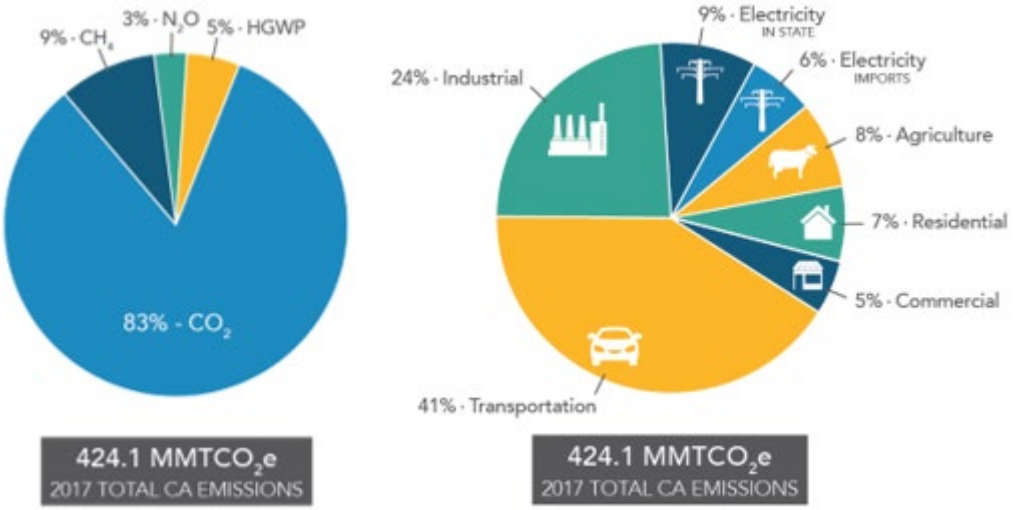
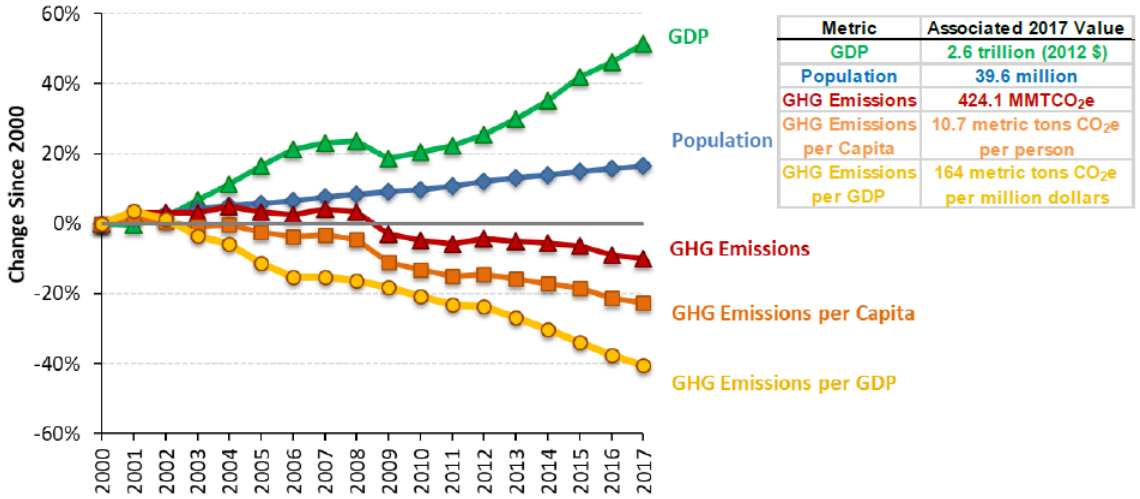


Figure 4-3. Change in California GDP, Population, and GHG Emissions since 2000



Source: ARB 2019b

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.

Regional Plans

ARB sets regional targets for California's 18 MPOs to use in their Regional Transportation/Sustainable Communities Strategy (RTP/SCS) to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The regional reduction target for SCAG is

8 percent by 2020 and 19 percent by 2035 (ARB 2019). The project area is within the geography of the County of Riverside Climate Action Plan (RCPD 2019), which shares sustainability goals with the SCAG RTP/SCS.

Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH_4 and N_2O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (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.

Operational Emissions

The proposed project only involves the replacement of RSP on each of twenty-four bridges along I-10, and, thus will not increase the vehicle capacity of the roadway. Because the project would not increase the number of travel lanes, no increase in vehicle miles traveled (VMT) would occur as result of the project implementation, and traffic volumes are anticipated to be the same under the Build Alternative and No-Build Alternative. Although GHG emissions during the construction period (as discussed below) would be unavoidable, no increase in operational GHG emissions is expected.

Construction Emissions

Construction GHG emissions would result from material processing, 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.

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

Construction-period GHG emissions were modeled using the Caltrans Construction Emissions Tool 2018 (CAL-CET 2018) v1.2. Construction activities would result in GHG emissions from fuel combustion associated with off- and on-road construction equipment and vehicles, which

would result in estimated emissions of 301 tons of CO_2-equivalent (CO_2e)[4] over the approximately 12-month construction period.

The project would comply with all requirements of the South Coast Air Quality Management District. In addition, Caltrans Standard Specifications Section 14-9, Air Quality, a part of all construction contracts, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. Measures that reduce vehicle emissions and energy use also reduce GHG emissions. Under Avoidance and Minimization Measure TR-2, a traffic management plan, will be implemented to minimize traffic delays and associated idling emissions during construction.

CEQA Conclusion

While the project would result in a slight increase in GHG emissions during construction, it is anticipated that the project would 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 GHGs. With implementation of construction GHG-reduction measures, the impact would be less than significant.

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

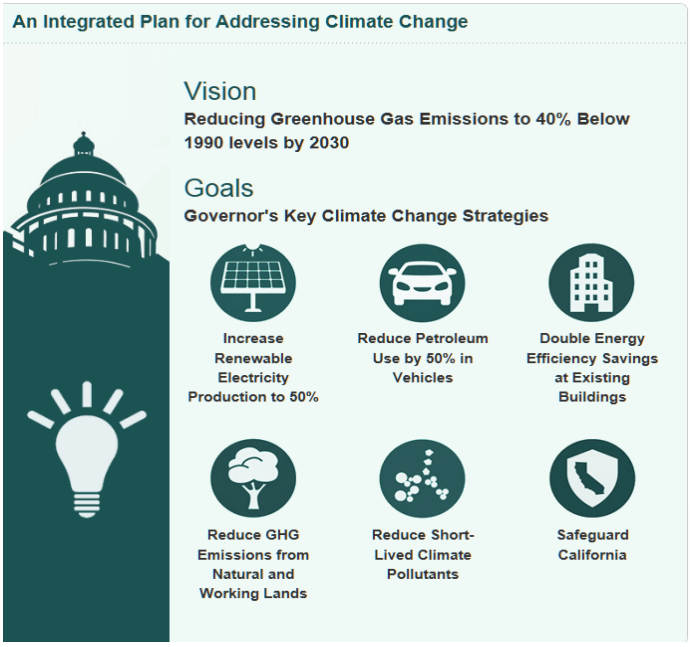
GREENHOUSE GAS REDUCTION STRATEGIES

Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

[4]Because GHGs differ in how much heat each traps in the atmosphere, and CO_2 is the most important GHG, amounts of other gases are expressed relative to CO_2. Measurements are then summed to yield a total in metric tons of CO_2-equivalent over a given time period. The Road Construction Emissions Model calculates only CO_2, methane, and nitrous oxide.

Figure 4-4. California Climate Strategy



The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing GHG emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California 2019)..

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

Caltrans Activities

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

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO_2 reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

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

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

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

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

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

Project-Level GHG Reduction Strategies

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

A traffic management plan (TMP) would be implemented to maintain traffic safety through the construction zone and to minimize traffic delays (TR-1). The reduction of traffic delays would also reduce short-term increases in GHG emissions from disruptions in traffic flow.

Caltrans Standard Specifications Section 7-1.02A and 71.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations.

Requirements of the South Coast Air Quality Management District (SCAQMD) would apply to this project. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce GHG emissions.

Caltrans Standard Specifications Section 14-9, Air Quality, a part of all construction contracts, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. SCAQMD regulations would apply in the proposed project area. Measures that reduce vehicle emissions and energy use also reduce GHG emissions.

Consistent with the Program Environmental Impact Report prepared for the SCAG 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, the proposed project will also minimize GHG emissions by recycling construction debris to maximum extent feasible and using energy- and fuel-efficient vehicles and equipment that meet or exceed EPA/NHTSA/ARB standards.

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.

Federal Efforts

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

The US Global Change Research Program (USGRCP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 USC. ch. 56A § 2921 et seq). The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways." Chapter 12, "Transportation," presents a key discussion of vulnerability assessments. It notes that "asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime" (USGCRP 2018).

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

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events,* December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California's Fourth Climate Change Assessment* (2018) is the state's latest effort to "translate the state of climate science

into useful information for action" in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

- *Adaptive capacity* is the "combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities."

- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.

- Resilience is the "capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience". Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.

- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.

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

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

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate "sea-level rise (SLR) projections into planning and decision making for projects in California" in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B3015, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

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

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

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

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.

- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.

- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

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

Project Adaptation Analysis

Sea-Level Rise Analysis

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.

Floodplain

The proposed project is located in an area designated as zone D according to the Federal Emergency Management Agency (FEMA) flood hazard maps, which means that the area has not yet been analyzed for flood hazards. However, the proposed project itself will not increase the amount of impervious surface in the watershed and, therefore, would not increase the risk for flooding.

For the three western-most bridge sites at PM R92.9 through PM R94.7 (Krume, Beta, and Tecka Ditches), the receiving waters are unnamed ephemeral (temporary) drainages that flow north and northwest for approximately one mile before reaching Hayfield Dry Lake. For the nine eastern bridge sites at PM96.5 through PM 101.1, the receiving waters are unnamed ephemeral drainages that flow northeast for approximately twenty-two miles before reaching Palen Dry Lake.

The view in Google Earth (2019) shows the closest permanent water body as Tamarisk Lake, which is at approximately 5 miles from the proposed project site. The closest dry lake bed is Hayfield Lake, which is just over 0.4 mi away from the proposed project site.

The climate vulnerability assessment for District 8 (Caltrans 2019) interactive mapping of projected precipitation changes in the project area indicates a potential increase of up to 1.7% percent in 100-year storm precipitation through 2085. The proposed project itself is expected to protect the bridge abutments in the project area from scouring caused by the flow of water during rain events.

Wildfire

According to the map by CalFire's Fire and Resource Assessment Program (https://egis.fire.ca.gov/FHSZ/), the proposed project area is located within local responsibility and federal responsibility areas, and is not indicated as a CalFire fire hazard severity zone.

Wildfires are a risk in the project area; however, modeling conducted for the District 8 Draft Climate Vulnerability Assessment Risk shows no information on the increased likelihood in wildfires throughout the proposed project area. However, the proposed project itself would not introduce any new structures to the area that would increase the risk of wildfire, regardless of any possible long-term climate effects.

Caltrans standard plans include provisions to prevent construction-related fire such as following Cal Fire guidelines for equipment use, control of flammable materials, use of fuel breaks, and fire monitoring when fire danger ratings are "very high", "extreme", or "red flag" warnings are issued, as provided in Caltrans Standard Plan section 7-1.02M(2). All of the proposed project activities are expected to take place within Caltrans right-of-way.

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Chapter 4 – Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public notices, and Project Development Team (PDT) meetings. This chapter summarizes the results of the Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

Caltrans Project Development Team meetings occur once a month to discuss the proposed projects scope, cost and schedule.

Public Agency Correspondence

Native American Heritage Commission

On January 2, 2019, the Native American Heritage Commission (NAHC) was sent a letter requesting a search of the Sacred Lands File. On January 8, 2019, Caltrans received a response stating that no sacred lands were present in the project area. The NAHC also provided a list of local Native American individuals and organizations that should be contacted.

These Native American contacts were informed of the proposed project. From January through December 2019, Caltrans corresponded with the following tribes and reservation: Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Chemehuevi Reservation, Colorado River Indian Tribes, Ramona Band of Cahuilla, Santa Rosa Band of Cahuilla, Soboba Band of Luiseño Indians, and Twenty-Nine Palms Band of Mission Indians.

United States Fish and Wildlife Service

An official US Fish and Wildlife Service (USFWS) list of federally threatened, endangered, and proposed species, critical habitat, and candidate species that may be affected by the project was requested and received on April 27, 2020, using the USFWS IPaC website. This letter is included at the end of this chapter.

Coordination with USFWS for a Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) streamlined biological opinion and a programmatic biological opinion (8-8-13-F-0279) concurrence for desert tortoise was electronically submitted on January 9, 2020 and is currently pending review at the agency.

Public Participation

A Notice of Intent will be filed with the California State Clearinghouse.

The Notice of Intent and this IS will be mailed to the agencies and public identified in Chapter 6, Distribution List.

All environmental permits are currently being coordinated with the appropriate permitting agencies and anticipate all necessary permits by Spring 2022.

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: April 27, 2020
Consultation Code: 08ECAR00-2019-SLI-0397
Event Code: 08ECAR00-2020-E-02357
Project Name: 1H200/0816000177 RIV-10-92.9/101.1 Replace RSP

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 08ECAR00-2019-SLI-0397

Event Code: 08ECAR00-2020-E-02357

Project Name: 1H200/0816000177 RIV-10-92.9/101.1 Replace RSP

Project Type: TRANSPORTATION

Project Description: The scope of work for the project is to replace rock slope protection at 24 bridges on Interstate 10 within the limits, excavation from 5 to 10 feet at all locations, the surplus material (sediment) will be reused in the median. Construction access roads are proposed in the dirt median and staging areas outside of roadway in the limits of right-of-way. Temporary easements are needed for BLM.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.68467246654845N115.53177669606518W

Counties: Riverside, CA

Endangered Species Act Species

There is a total of 3 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.

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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. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

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

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

Chapter 5 – List of Preparers

The following Caltrans staff contributed to the preparation of this Initial Study with proposed Mitigated Negative Declaration:

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Natasha Walton, Environmental Planner, Environmental Studies Branch C

Ronn Knox, Associate Environmental Planner, Environmental Studies Branch C

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Bahram Karimi, Associate Environmental Planner/Paleontology Coordinator

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Adam Compton, Senior Environmental Planner, Biological Permits

Maria Hamlett, Environmental Planner, Biological Permits

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Javed Grewal, Transportation Engineer, Environmental Engineering

Peter Vo, Transportation Engineer, Environmental Engineering

Randy Galvan, Transportation Engineering Technician, Environmental Engineering

Bruce Ko, Project Manager

Rafael Youssef, Assistant Project Manager

Ha Vu, Project Engineer

Paul Bangean, Project Engineer

Saravana Vigneswaran, Transportation Engineer, Hydraulics

Christopher McCormick, Transportation Engineer, Hydraulics

Tri Tran, Transportation Engineer, Storm Water

Almabeth Anderson, Landscape Architect

Dara Maleki, Transportation Engineer, Civil, Traffic Management

Chapter 6 – Distribution List

A public notice of this IS (MND) was distributed to federal, state, regional and local agencies. In addition, all property owners within a 500-ft radius of the project limits were provided the notice

Federal Agencies

United States Fish and Wildlife Service (USFWS)
777 E. Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

United States Army Corps of Engineers
915 Wilshire Blvd Ste 1101 Los Angeles, CA 90017

United States Bureau of Land Management
22835 Calle San Juan De Los Lagos
Moreno Valley, CA 92553

State Agencies

Office of Planning and Research (OPR) California State Clearing House
1400 Tenth Street
Sacramento, CA 95814

California Department of Fish and Wildlife
3602 Inland Empire Blvd, Suite C-220
Ontario, CA 91764

Regional/Local Agencies

Southern California Association of Governments (SCAG) –Riverside County Regional Office

3403 10th Street, Suite 805
Riverside, CA 92501

Riverside County Transportation Commission
4080 Lemon Street, 3rd Floor
Riverside, CA 92501

County of Riverside
County Administration Center
4080 Lemon St.
Riverside, CA 92501

Colorado River Regional Water Quality Control Board Region 7
73-720 Fred Waring Drive
Suite 100
Palm Desert, CA 92260

Riverside County Library System
Library Management Office
Attn: Manager
5840 Mission Blvd.
Jurupa Valley, CA 92509

Desert Center Unified School District
Attn: Superintendent
1434 Kaiser Road
Desert Center, CA 92239

Lake Tamarisk Desert Resort
Attn: Jeremy and Lindsey Phipps
26250 Parkview Drive
Desert Center, CA 92239

Property Owners

MWD
PO BOX 54153, LOS ANGELES, CA, 90054-0153

VIGG, STEVEN C
172 EDGEWATER DR # 1609
CARSON, WA, 98610-3205

VIGG, HELLEN G THE HELEN VIGG TRUST
172 EDGEWATER DR # 1609
CARSON, WA, 98610-3205

ESSEFF, LAUREL C HIRD FAMILY TRUST
1213 HARVARD DR
DAVIS, CA, 95616-1710

VALOV, WILLIAM
2339 MONTERA DR
HACIENDA HEIGHTS, CA, 91745-4622

BONHAM, GARRETT ANTHONY
26314 BELLE PORTE AVE
HARBOR CITY, CA, 90710-3737

FUGRAD, FELIX M FUGRAD, CELEDONIA C
28267 TRISTAN DR
MORENO VALLEY, CA, 92555-6134

GOLDEN MONKEY INC
PO BOX 1468
MONTEREY PARK, CA, 91754-8468

STATE OF CALIF
PO BOX 1799, SACRAMENTO, CA, 95812-1799

FAMILY NURSERY CO INC
PO BOX 389
VICTORVILLE, CA, 92393-0389

DURAN, ANTHONY
PO BOX 2398
RANCHO MIRAGE, CA, 92270-1086

Appendix A. Biological Tables

Table 1. Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area [December 2019 Natural Environment Study (Minimal Impacts)]

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
SENSITIVE NATURAL COMMUNITIES					
Desert willow – smoke tree wash woodland	*Chilopsis linearis - Psorothamnus spinosus* Woodland Alliance	G4 S3	Washes, intermittent channels, canyon bottoms, arroyos, along floodplains, and wash terraces where flooding is infrequent but where subterranean water is available. Soils are well-drained sands and gravels that are moderately acidic to slightly alkaline.	P	**Present** (Observed on two of the nine sites.)
PLANTS					
Harwood's milk-vetch	*Astragalus insularis* var. *harwoodii*	F: ND C: ND CNPS: 2B.2 State Rank: S2 Global: G5T4	Found on open, sandy flats, sandy or stony desert washes, mostly in Creosote bush scrub at 148 to 2,300 feet.	HP	**Low** (Potential habitat present, no milk-vetch species observed during surveys.)
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** (habitat present on sites, but species not observed during surveys.)
Emory's crucifixion-thorn	*Castela emoryi*	F: ND C: ND CNPS: 2B.2 State Rank: S2S3 Global Rank: G3G4	Alpine dwarf scrub, Mojavean desert scrub, pinon and juniper woodland. Elevation: 160-2500 m	A	**Absent** (Both survey biologists have field experience with species, large and unmistakable, if present would not have been missed.)
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. Several records SE and E of eastern end of surveyed areas.)
Alverson's Foxtail Cactus	*Coryphantha alversonii*	F: ND C: ND CNPS: 4.3 State Rank: S3	Sandy or rock habitats, including gravelly slopes and dissected alluvial	P	**Present** (Observed on four of the nine sites.)

		Global: G3	fans with granite substrates in Sonoran and Mojavean desert scrub. 246 to 1,970 feet.		
Abrams' spurge	*Euphorbia abramsiana*	F: ND C: ND CNPS: 2B.2 State Rank: S2 Global: 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 ~ 1.35 mi. NW of western-most site, Hayfield Lake edge [dry], not observed onsite.)
Utah vine milkweed	*Funastrum utahense*	F: ND C: ND CNPS: 4.2 State Rank: S4 Global Rank: G4	Sandy or gravelly areas in Mojavean & Sonoran Desert scrub at 328 to 4,708 feet elevation.	P	**Present** (Observed on four of the nine sites.)
Wright's jaffueliobryum moss	*Jaffueliobryum wrightii*	F: ND C: ND CNPS: 2B.3 State Rank: S2? Global: G4G5	Alpine dwarf scrub, pinyon and juniper woodland, Mojavean desert scrub. Dry openings, rock crevices, carbonate. 525-8,200 feet.	A	**Absent** (No suitable habitat on site.)
spear-leaf matelea	*Matelea parvifolia*	F: ND C: ND CNPS: 2B.3 State Rank: S3 Global: G5	Dry rocky ledges and slopes in Sonoran Desert scrub, 1.590 – 4,725 feet elevation.	A	**Absent** (No suitable habitat and sites too low in elevation.)
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 woodland, Mojavean & Sonoran Desert scrub, 197-4,806 feet elevation	A	**Absent** (Distinctive species, not seen during surveys, CNDDB record is from Hayfield Lake area, suitable microhabitat lacking.)
desert beardtongue	*Penstemon pseudospectabilis* ssp. *pseudospectabilis*	F: ND C: ND CNPS: 2B.2 State Rank: S3 Global Rank: G4G5T4	Sandy, sometimes rocky washes in Mojavean & Sonoran Desert scrub. 262-5,708 ft.	HP	**Low** (Potential habitat on sites, no Penstemon species observed on sites during surveys.)
Narrow-leaf sandpaper-plant	*Petalonyx linearis*	F: ND C: ND CNPS: 2B.3 State Rank: S3? Global Rank: G4	Perennial shrub found in Sonoran Desert scrub and/or Mojavean desert scrub in sandy or rocky canyons at 98 to 3,576 feet elevation.	HP	**Low** (Potential suitable habitat onsite, site is not in or near canyons, species not observed during surveys.)
desert spike-moss	*Selaginella eremophila*	F: ND C: ND	Chaparral, Sonoran Desert scrub;	A	**Absent** (No habitat present, no

		CNPS: 2B.2 State Rank: S2S3 Global: G4	shaded sites, gravelly soils, crevices or among rocks. 656-2953 ft. elevation		mosses observed on sites.)
Cove's cassia	*Senna covesii*	F: ND C: ND CNPS: 2B.2 State Rank: S3 Global: G5	Dry, sandy desert washes and slopes in Sonoran Desert scrub. 738-4,250 ft. elevation.	HP	**Low** (Potential habitat present, species not observed on sites.)
desert scaleseed	*Spermolepis gigantea*	F: ND C: ND CNPS: 2B.1 State Rank: SH Global: G2G3	Known in CA only from Hayfields Dry Lake; needs field surveys. 1,312 ft. elevation.	A	**Absent** (not observed on sites, Jepson manual has a note stating "Possibly introduced in California".)
mesquite neststraw	*Stylocline sonorensis*	F: ND C: ND CNPS: 2A State Rank: SX Global: G3G5	Open sandy drainages in Sonoran Desert scrub, +-1,312 feet elevation.	A	**Absent** (Presumed extirpated in California, common elsewhere. Known in CA from only a single collection (1930) at Hayfields Dry Lake. Possibly extirpated after 1930 by development.)
dwarf germander	*Teucrium cubense ssp. depressum*	F: ND C: ND CNPS: 2B.2 State Rank: S2 Global Rank: G4G5T3T4	Dunes, playa margins, and Sonoran Desert scrub. Sometimes on sub-saline soils. 164-1312 ft.	A	**Absent** (Habitat lacking, CNDDB record from ~ 4 mi. NW of western-most site N. of Hayfield Lake, CNDDB account states "need better location info".)
WILDLIFE					
southwestern willow flycatcher	*Empidonax traillii extimus*	F: END C: END	Riparian forest, Riparian scrub, Riparian woodland	A	**Absent** (Dense riparian habitat lacking. Closest known occurrence is near Salton Sea, over 25 miles due south.)
Prairie falcon	*Falco mexicanus*	F: ND, BCC C: ND, WL	Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & 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, P	**Present** (Desert tortoise sign, Class 3 carcass and Class 4 burrow, was found near Union Ditch and Wide Ditch, respectively. Suitable habitat is within the project impact area.)
elf owl	*Micrathene whitneyi*	F: BCC, BLM_S C: END	Riparian woodland	A	**Absent** (Nesting cavity habitat such as cacti & large trees lacking.)
bat ssp.	N/A	F: ND, BLM_S C: SSC	Roosting habitat includes hollow	HP	**Low** (Marginal foraging habitat is

			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.		present within the desert wash corridors. Bridge roosting habitat has a very low potential based on the design - all bridge structures are a reinforced concrete continuous slab with no hinges, joints, or weep holes. Bats were not observed on site incidentally during any of the surveys.)
desert bighorn sheep	*Ovis canadensis nelsoni*	F: ND, BLM_S C: ND, FP	Alpine, Alpine dwarf scrub, Chaparral, Chenopod scrub, Great Basin scrub, Mojavean desert scrub, Montane dwarf scrub, Pinon & juniper woodlands, Riparian woodland, Sonoran desert scrub	A	**Absent** (Known occurrences are within mountain ranges to the north and south. Suitable rocky habitat lacking.)
Crissal thrasher	*Toxostoma crissale*	F: ND, BLM_S C: SSC	Riparian and wetland communities: Southwestern North American riparian, flooded and swamp forest/scrubland Scrub and chaparral communities: intermountain dry shrubland and grassland, lower bajada and fan Mojavean–Sonoran desert scrub	HP	**Moderate** (Habitat present.)
Le Conte's thrasher	*Toxostoma lecontei*	F: ND, BCC C: SSC	Desert wash, Mojavean desert scrub, Sonoran desert scrub	HP	**Moderate** (Habitat present.)
least Bell's vireo	*Vireobellii pusillus*	F: END C: END	riparian scrub and riparian woodland in the vicinity of water in dry river bottoms below 2000 ft.	HP	**Low** (Dense riparian habitat lacking.)

Absent [A] – the species is absent. Habitat Present [HP] -habitat is, or may be present. The species may be present. Present [P] – the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present.

Definitions of status designations and occurrence probabilities.
Federal designations: (federal Endangered Species Act, US Fish and Wildlife Service):
END: Federally listed, Endangered.
THR: Federally listed, Threatened.
BCC: Birds of Conservation Concern.
ND: Not designated.
BCC: Bird of Conservation Concern.
BLM-S: Bureau of Land Management Sensitive.
State designations: (California Endangered Species Act, California Dept. of Fish and Game)
END: State listed, Endangered.
THR: State listed, Threatened.
CNPS: State listed as Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare

plants have retained the Rare designation.)
SSC: California Special Concern Species.
FP: Fully Protected.
WL: Watch List Species.
ND: Not designated.

California Native Plant Society (CNPS) designations: (Non-regulatory, compilation by a non-profit organization which tracks rare plants)
CNPS California Rare Plant Ranks (CRPR) Note: According to the CNPS (http://www.cnps.org/programs/Rare_Plant/inventory/names.htm), ALL plants on Lists 1A, 1B, 2A, and 2B meet definitions for state listing as threatened or endangered under Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code. Certain plants on Lists 3 and 4 do as well.
The CDFW (http://www.dfg.ca.gov/hcpb/species/t_e_spp/nat_plnt_consv.shtml) states that plants on Lists 1A, 1B, 2A, and 2B of the CNPS Inventory consist of plants that may qualify for listing, and recommends they be addressed in CEQA projects (CEQA Guidelines Section 15380). However, a plant need not be in the Inventory to be considered a rare, threatened, or endangered species under CEQA. In addition, CDFW recommends, and local governments may require, protection of plants which are regionally significant, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 and 4.
List 1A: Plants presumed extinct in California.
List 1B: Plants rare and endangered in California and throughout their range.
List 2A: Plants presumed extirpated in California, but more common elsewhere.
List 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
List 3: Plants for which more information is needed.
List 4: Plants of limited distribution; a "watch list."
CA Endemic: Taxa that occur only in California
CNPS Threat Code:
.1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)
Note: All List 1A (presumed extinct in California) and some List 3 (need more information- a review list) plants lacking any threat information receive no threat code extension. Also, these Threat Code guidelines represent a starting point in the assessment of threat level. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are also considered in setting the Threat Code.

Definitions of occurrence probability:
Present: Observed on the site by AMEC personnel, or recorded on-site by other qualified biologists.
High: Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.
Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.
Low: Site is within the known range of the species but habitat on the site is rarely used by the species.
Absent: A focused study failed to detect the species, or, no suitable habitat is present.

CDFW CNDDB rankings: Plants and Vegetation Communities
S1 = Less than 6 viable occurrences OR less than 1,000 individuals OR less than 2,000 acres
S1.1 = very threatened
S1.2 = threatened
S1.3 = no current threats known
S2 = 6-20 viable occurrences OR 1,000-3,000 individuals OR 2,000-10,000 acres
S2.1 = very threatened
S2.2 = threatened
S2.3 = no current threats known
S3 = 21-80 viable occurrences or 3,000-10,000 individuals OR 10,000-50,000 acres
S3.1 = very threatened
S3.2 = threatened
S3.3 = no current threats known
S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat.
S5 = Demonstrably secure to ineradicable in California.

Table 2: Vascular Plants Observed on the I-10 Replace Existing Rock Slope Protection Project, Riverside County, California [December 2019 Natural Environment Study (Minimal Impacts)].

This list reports only the plants observed on this site by this study. Other species may have been overlooked or undetectable due to their growing season. Plants were identified from keys, descriptions and drawings in Hickman (ed.) 1993. Unless noted otherwise, nomenclature and systematics follows Jepson eFlora (2017).

SYMBOLS AND ABBREVIATIONS:

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* Non-native (introduced) species

** Special Status species (see text).

cf. Uncertain identification, but plant specimen "compares favorably" to named species sp.

Identified only to genus; species unknown (plural = spp.)

ANGIOSPERMAE	**DICOTYLEDONS**
Acanthaceae	**Acanthus Family**
Justicia californica	chuparosa
Aizoaceae	**Iceplant Family**
**Mesembryanthemum nodiflorum*	slender-leaved iceplant (waif)
Apocynaceae	**Dogbane Family**
Asclepias subulata	rush milkweed
Funastrum hirtellum	trailing townula
***Funastrum utahense*	Utah vine milkweed
Asteraceae	**Sunflower Family**
Ambrosia dumosa	burrobush
Ambrosia salsola	cheesebush

Bebbia juncea	sweetbush
Chaenactis fremontii	Fremont pincushion
Encelia farinosa	brittlebush
Encelia frutescens	rayless encelia
Malacothrix glabrata	desert dandelion
Palafoxia arida	Spanish needle
Peucephyllum schottii	pygmycedar
Porophyllum gracile	odora
Stephanomeria exigua	small wirelettuce
Stephanomeria pauciflora	desert straw
Boraginaceae	**Borage Family**
Amsinckia tessellata	checkered fiddleneck
Cryptantha angustifolia	narrow-leaved cryptantha
Cryptantha maritima	Guadalupe cryptantha
Ditaxis neomexicana	common ditaxis
Phacelia crenulata	notch leaved phacelia
Phacelia distans	common phacelia
Brassicaceae	**Mustard Family**
**Brassica tournefortii*	Saharan mustard
Descurainia pinnata	western tansymustard
Lepidium lasiocarpum ssp. *lasiocarpum*	shaggyfruit pepperweed
**Sisymbrium irio*	London rocket
Cactaceae	**Cactus Family**
***Coryphantha alversonii*	foxtail cactus
Cylindropuntia echinocarpa	golden/silver cholla
Cylindropuntia ramosissima	diamond cholla
Echinocereus engelmannii	Engelmann hedgehog cactus
Ferocactus cylindraceus	desert barrel cactus
Mammillaria tetrancistra	common fishhook cactus
Convolvulaceae	**Morning-Glory Family**
Cuscuta denticulata	small-tooth dodder
Euphorbiaceae	**Spurge Family**
Euphorbia albomarginata	rattlesnake weed
Euphorbia polycarpa	smallseed sandmat
Fabaceae	**Pea Family**
Lupinus arizonicus	Arizona lupine
Marina parryi	Parry dalea

Olneya tesota	ironwood
Parkinsonia florida	blue palo verde
Psorothamnus schottii	Schott's indigo bush
Psorothamnus spinosus	smoke tree
Senegalia greggii	catclaw
Fouquieriaceae	**Ocotillo Family**
Fouquieria splendens ssp. *splendens*	ocotillo
Geraniaceae	**Geranium Family**
**Erodium cicutarium*	redstem filaree
Krameriaceae	**Rhatany Family**
Krameria bicolor	white rhatany
Lamiaceae	**Mint Family**
Condea emoryi	desert lavender
Salvia columbariae	chia
Malvaceae	**Mint Family**
Hibiscus denudatus	pale face
Sphaeralcea ambigua	apricot mallow
Nycataginaceae	**Four O' Clock Family**
Allionia incarnata	windmills
Onagraceae	**Evening Primrose Family**
Chylismia brevipes	yellow cups
Eulobus californicus	California primrose
Phrymaceae	**Lopseed Family**
Diplacus bigelovii	Bigelow's monkeyflower
Plantaginaceae	**Plantain Family**
Plantago ovata	desert plantain
Polemoniaceae	**Phlox Family**
Gilia sp.	gilia
Polygonaceae	**Buckwheat Family**
Chorizanthe brevicornu	brittle spineflower
Chorizanthe rigida	rigid spineflower

Eriogonum deflexum	skeleton weed *Eriogonum inflatum*
	desert trumpet
Eriogonum thomasii	Thomas' wild buckwheat
Simmondsiaceae	**Jojoba Family**
Simmondsia chinensis	jojoba
Solanaceae	**Nightshade Family**
Lycium sp.	desert thorn (no leaves or fruits)
Nicotiana obtusifolia	desert tobacco
Physalis crassifolia	thick leaved ground cherry
Viscaceae	**Mistletoe Family**
Phoradendron californicum	desert mistletoe
Zygophyllaceae	**Caltrop Family**
Fagonia laevis	California fagonia
Fagonia pachyacantha	sticky fagonia
Larrea tridentata	creosote bush
MONOCOTYLEDONEAE	**MONOCOT FLOWERING PLANTS**
Poaceae	**Grass Family**
**Avena sativa*	cultivated oat (roadside waif)
**Cynodon dactylon*	Bermuda grass
Hilaria rigida	big galleta
**Hordeum vulgare*	domestic barley
**Schismus* sp.	schismus

Table 3. Vertebrate Wildlife Observed on the I-10 Replace Existing Rock Slope Protection Project, Riverside County, California [December 2019 Natural Environment Study (Minimal Impacts)].

This list reports only animals observed on or adjacent to the site while conducting field surveys and assessments for this Project. Other species may have been overlooked or undetectable due to their activity or season.

Nomenclature and taxonomy for fauna observed on site follows Stebbins (2012) for herpetofauna, California Bird Records Committee Checklist (2018) for avifauna, and Laudenslayer *et al.* (1991) for mammals.

SYMBOLS AND ABBREVIATIONS:

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* Non-native (introduced) species

** Special Status species (see text).

Identified only to genus; species unknown (plural = spp.)

HERPETOFAUNA	**REPTILES & AMPHIBIANS**
TESTUDINES	**TURTLES**
Testudinidae	**Land Tortoises**
***Gopherus agassizii**	desert tortoise
SQUAMATA	**LIZARDS & SNAKES**
Iguanidae	**Iguanas**
Dipsosaurus dorsalis dorsalis	northern desert iguana

Phrynosomatidae	**Spiny Lizards & Relatives**
Callisaurus draconoides rhodostictus	western zebra-tailed lizard
Sceloporus magister	desert spiny lizard
Uta stansburiana	side-blotched lizard
Teiidae	**Whiptails and Racerunners**
Aspidoscelis tigris tigris	Great Basin whiptail
Colubridae	**Harmless Egg-laying Snakes**
Salvadora hexalepis hexalepis	desert patch-nosed snake
AVIFAUNA	**BIRDS**
Cathartidae	**New World Vultures**
Cathartes aura	turkey vulture
Accipitridae	**Kites, Eagles, Hawks, and Allies**
Buteo jamaicensis	red-tailed hawk
Columbidae	**Pigeons and Doves**
Zenaida macroura	mourning dove
Corvidae	**Jays, Magpies, and Crows**
Corvus corax	common raven
Remizidae	**Penduline Tits and Verdins**
Auriparus flaviceps	verdin
Polioptililidae	**Gnatcatchers and Gnatwrens**
Polioptila melanura	black-tailed gnatcatcher
Ptiliogonatidae	**Silky-flycatchers**
Phainopepla nitens	phainopepla
Parulidae	**Wood-warblers**
Setophaga petechia	yellow warbler
Passerellidae	**New World Sparrows**
Amphispiza bilineata	black-throated sparrow

MAMMALIA	**MAMMALS**
Canidae	**Foxes, Wolves, Coyotes**
Canis latrans	coyote (tracks, scat)
Vulpes macrotis arsipus	desert kit fox (scat)
Leporidae	**Rabbits & Hares**
Sylvilagus audubonii	desert cottontail
Muridae	**Rats, Mice, and Voles**
Neotoma lepida	desert woodrat
Sciuridae	**Squirrels**
Ammospermophilus leucurus	white-tailed antelope squirrel
Xerospermophilus t. tereticaudus	round-tailed ground squirrel
Heteromyidae	**Pocket Mice and Kangaroo Rats**
Dipodomys sp. (burrows)	kangaroo rat (unidentified burrows)

Appendix B. Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

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

Making Conservation a California Way of Life.

April 2018

NON-DISCRIMINATION POLICY STATEMENT

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

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

For information or guidance on how to file a complaint, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

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

LAURIE BERMAN
Director

Appendix C. Federal Statewide Transportation Improvement Program (FSTIP)

State Highways
2019 FTIP - Including Amendments 1-11 & 13-15

FTIP ID	RIVLS06	*FTIP Amendment*	Riverside County Transportation Commission (RCTC) 19-08	*Conform Category*	EXEMPT - 93.126	*Total Project Cost*	$61,716
Lead Agency	CALTRANS			*Modeling*	NO		
County	Riverside	Primary Program Code		Air Basin	SSAB	RTP ID	30M0701
System	State Hwy						
Project Limits	Route 999 , From to , Begin: 0 End: 0						
Description	GROUPED PROJECTS FOR BRIDGE REHABILITATION AND RECONSTRUCTION - SHOPP PROGRAM: PROJECTS ARE CONSISTENT W/40 CFR 93.126 EXEMPT TABLE 2 - WIDENING NARROW PAVEMENTS OR RECONSTRUCTING BRIDGES (NO ADDITIONAL TRAVEL LANES).						

Phase	Fund Source (in $000s)	Prior	18/19	19/20	20/21	21/22	22/23	23/24	Future	Total
CON	SHOPP - ADVANCE CONSTRUCTION	-	$25,883	$9,595	$2,936	$23,302	-	-	-	$61,716
	Total Construction	-	$25,883	$9,595	$2,936	$23,302	-	-	-	$61,716
	Total Programmed	-	**$25,883**	**$9,595**	**$2,936**	**$23,302**	-	-	-	**$61,716**

RIVLS06 Exempt Grouped Projects for Bridge Rehabilitation and Reconstruction - SHOPP Program - 2019 FTIP Amendment #19-08

Agency	County	District EA	Notes	Project Description	Program Year (FFY)	Federal Funds	State Funds	Total Project Cost (in $1000's)
Caltrans	Riverside	1H200	New: SHOPP Amendment #18H-000 approved by CTC March 21-22, 2018.	I-10 near Desert Center, from Krume Ditch to Wide Ditch. Replace existing Rock Slope Protection (RSP) to prevent further scour damage and preserve the integrity of twenty-four bridges. PS&E and R/W Support Funding Only.	2020/21	$ 1,491	$ -	$ 1,491
				FY 2020-2021 100% SHOPP AC funded Sub-total	Sub-total	$ 2,936	$ -	$ 2,936
~~Caltrans~~	~~Riverside~~	~~1H190~~	~~New: SHOPP Amendment #18H-000 approved by CTC March 21-22, 2018.~~	~~I-10 near Desert Center, from Coxcomb Ditch to Cope Ditch. Replace existing Rock Slope Protection (RSP) to prevent further scour damage and preserve the structural integrity of sixteen bridges. SHOPP Amendment #18H-000 approved by CTC March 21-22, 2018 Construction Funding Only.~~	~~2021/22~~	~~$ 9,692~~	~~$ -~~	~~$ 9,692~~
~~Caltrans~~	~~Riverside~~	~~1H210~~	~~New: SHOPP Amendment #18H-000 approved by CTC March 21-22, 2018.~~	~~I-10 near Blythe, from Rubble Ditch to Palowalla Ditch. Replace existing Rock Slope Protection (RSP) to prevent further scour damage and preserve the structural integrity of eighteen bridges. SHOPP Amendment #18H-000 approved by CTC March 21-22, 2018 Construction Funding Only.~~	~~2021/22~~	~~$ 11,564~~	~~$ -~~	~~$ 11,564~~
Caltrans	Riverside	1G470	New: SHOPP Amendment #18H-000 approved by CTC March 21-22, 2018.	On SR-74 near Lake Elsinore, at Morrill Canyon Bridge No. 56-0169; also near Hemet, at Strawberry Creek Bridge No. 56-0180 (PM 53.4/54.7). Replace structures/upgrade rails. SHOPP Amendment #18H-000 approved by CTC Construction Funding Only.	2021/22	$9,214	$ -	$ 9,214
Caltrans	Riverside	1H200	New: SHOPP Amendment #18H-000 approved by CTC March 21-22, 2018.	I-10 near Desert Center, from Krume Ditch to Wide Ditch. Replace existing Rock Slope Protection (RSP) to prevent further scour damage and preserve the integrity of twenty-four bridges. Construction Funding Only.	2021/22	$ 14,088	$ -	$ 14,088
				FY 2021-2022 100% SHOPP AC funded Sub-total	Sub-total	$ 23,302	$ -	$ 23,302
TOTAL				**100% SHOPP AC funded**	**TOTAL**	$ 61,716	$ -	$ 61,716

2019 FTIP #19-03: Delete 1H190, 1F410, 1H210

Anthony Liao, Caltrans District 8 Interim FTIP Manager

Appendix D. Avoidance, Minimization and/or Mitigation Summary

In order to be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] which follows) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

Permit Type	Agency	Date Received	Expiration	Notes
PBO & SBO	United States Fish and Wildlife Service (USFWS)			Programmatic Biological Opinion (PBO) Concurrence for Desert Tortoise and Streamlined Biological Opinion (SBO) through Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) for Desert Tortoise
	United States Army Corps of Engineers			Approved Jurisdictional Determination for exemption from a Section 404 Permit
1602	California Department of Fish and Wildlife			Lake and Streambed Alteration Agreement
	Colorado River Regional Water Quality Control Board			Waste Discharge Report

Date of ECR: 03/27/2020
Date: MONTH DAY YEAR of approved ED

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

ENVIRONMENTAL COMMITMENTS RECORD
I-10 Replace Rock Slope Protection

08-RIV-010
PM R92.9/ R101.1

EA 08-1H200
PN 0816000177
Generalist: Natasha Walton
ECL: John Stanton

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.	p11 of Attachment G	Historic Property Survey Report (01/10/2020)	District Cultural Studies District Design Resident Engineer Contractor	Construction	Standard Special Provision 14-2.03A					
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	p11 of Attachment G	Historic Property Survey Report (01/10/2020)	District Cultural Studies District Design Resident Engineer Contractor	Construction	Standard Special Provision 14-2.03A					

Date of ECR: 03/27/2020
Date: MONTH DAY YEAR of approved ED

Project Phase:
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☐ PS&E Submittal_____ %
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							Date / Initials	Date / Initials	YES	NO
the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 383-2647 and Gary Jones, DNAC: (909)383-7505. Further provisions of PRC 5097.98 are to be followed as applicable.										
CR-3: There shall be designated Environmentally Sensitive Areas, where all project-related activities or inadvertent disturbances shall be prohibited.	p11 of Attachment G	Historic Property Survey Report (01/10/2020)	District Cultural Studies District Design Resident Engineer Contractor	Final Design Construction						
CR-4: There shall be intermittent monitoring by an archaeological monitor through the life of the project to ensure compliance with ESAs.	p11 of Attachment G	Historic Property Survey Report (01/10/2020)	District Cultural Studies District Design Resident Engineer Contractor	Construction						

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							Date / Initials	Date / Initials	YES	NO
TRAFFIC AND TRANSPORTATION/BICYCLE AND PEDESTRIAN FACILITIES										
TR-1: A traffic management plan will be prepared and coordinated with local emergency responders.	p1	Traffic Management Memorandum (2/25/2020)	District Design District Traffic Management District Environmental Planning Resident Engineer Contractor	Final Design Construction						
TR-2: A traffic management plan will be implemented to minimize traffic delays and associated idling emissions during construction.	p1	Traffic Management Memorandum (2/25/2020)	District Design District Traffic Management District Environmental Planning Resident Engineer Contractor	Final Design Construction						
VISUAL/AESTHETICS										

Date of ECR: 03/27/2020
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							Date / Initials	Date / Initials	YES	NO
VIS-1: Any removal of trees or shrubs is proposed to be replaced in kind with a minimum ratio of 3:1 (ratio may change) to achieve massing comparable to previously existing.	p3	Scenic Resource Evaluation and Visual Impact Assessment Memorandum (12/30/2019)	District Design District Landscape Architecture District Environmental Planning Resident Engineer Contractor	Final Design Construction						
VIS-2: Provide erosion control for all Disturbed Soil Areas (DSA) per water board guidelines or as determined by district landscape architect (DLA).	p3	Scenic Resource Evaluation and Visual Impact Assessment Memorandum (12/30/2019)	District Design District Landscape Architecture District Environmental Planning Resident Engineer Contractor	Final Design Construction						

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HAZARDOUS WASTE / MATERIALS										
HW-1: An ADL investigation would be performed before and during construction to determine if aerially deposited lead (ADL) was present in the soil within the proposed project construction area; if the soil was found to contain lead at unacceptable levels, a lead compliance plan would be required and implemented.	p1	Initial Site Assessment Checklist (3/11/2020)	District Design District Environmental Engineering Resident Engineer Contractor	Design Construction						
BIOLOGICAL RESOURCES										
BIO-1: To protect the sensitive habitat, delineate this area as an Environmentally Sensitive Area (ESA) as shown on the plans.	p25	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Final Design Construction						
BIO-2: If Alverson's foxtail cactus or Utah vine milkweed cannot be avoided, the biolo-	p25	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies	Final Design Construction						

Date of ECR: 03/27/2020
Date: MONTH DAY YEAR of approved ED

Project Phase:
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							Date / Initials	Date / Initials	YES	NO
gist will translocate this species outside of the construction work zone and delineate appropriately.			Resident Engineer Contractor							
BIO-3: If construction occurs within nesting bird season (Feb 1 – Sept 30), conduct pre-construction nesting bird surveys before construction to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer will be established and monitored at the discretion of the qualified biologist.	p25	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Pre-Construction Construction						
BIO-4: Artificial lighting shall be directed at the work site only.	p26	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Final Design Construction						
BIO-5: A qualified biologist will be designated who will	p27	Natural Environment Study	District Design	Final Design Construction						

Date of ECR: 03/27/2020
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							Date / Initials	Date / Initials	YES	NO
oversee compliance of all protective measures and will notify the resident engineer of project activities that are not compliant. The resident engineer must stop work until the protective measures are implemented.		- Minimal Impacts (12/30/2019)	District Biological Studies Resident Engineer Contractor							
BIO-6: A qualified biologist will present a biological resource information program, a worker environmental awareness program (WEAP), prior to ground-disturbing activities to all personnel that will be present within the proposed project limits for longer than 30 minutes at any given time.	p27	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Final Design Construction						
BIO-7: Immediately prior to the start of any ground-disturbing activities and prior to the installation of any desert tortoise exclusion fencing, clearance surveys for the desert tortoise will be conducted by the biologist, as appropriate. The entire project area	p27	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Final Design Pre-Construction Construction						

Date of ECR: 03/27/2020
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							Date / Initials	Date / Initials	YES	NO
will be surveyed for desert tortoise and their burrows by the qualified biologist before the start of any ground disturbing activities.										
BIO 8: Temporary desert tortoise exclusion fencing will be installed outlining the perimeter of any construction staging, storage or batch plant areas to prevent entry by desert tortoises into the work site. Exclusion fencing will be installed following USFWS guidelines (2005) or more current protocol. The biologist will ensure that desert tortoises cannot pass under, over, or around the fence. The biologist must regularly check the fenced area and make any necessary repairs should it become damaged.	p 27	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Final Design Pre-Construction Construction						
BIO-9: The qualified biologist and project personnel shall carefully check regularly un-	p28	Natural Environment Study	District Design District Biological Studies	Final Design Construction						

Date of ECR: 03/27/2020
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							Date / Initials	Date / Initials	YES	NO
der parked vehicles or equipment for desert tortoises before moving any vehicles or equipment. Desert tortoises found within the staging and/or construction areas will be allowed to move away from such areas to a location away from danger, on their own accord. Workers will not be allowed to capture, handle, or relocate tortoises. Project activities shall re-commence only once the desert tortoise is safely outside the project areas or required protected areas.		- Minimal Impacts (12/30/2019)	Resident Engineer Contractor							
BIO-10: If at any time a desert tortoise is observed in the ROW, the qualified biologist will have the authority to halt any activity, through the Resident Engineer or other identified authority in charge of implementation, that may pose a threat to desert tortoises and to direct movements of equipment and personnel to avoid	p28	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Final Design Pre-construction Construction						

Date of ECR: 03/27/2020
Date: MONTH DAY YEAR of approved ED

Project Phase:
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							Date / Initials	Date / Initials	YES	NO
injury or mortality to desert tortoises.										
BIO-11: The qualified biologist will inform USFWS and CDFW of any injured or dead tortoises found on site (verbal notification within 24 hours and written notification within 5 days).	p28	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Final Design Pre-Construction Construction						
BIO-12: The qualified biologist will conduct on-site monitoring and submit monitoring reports for desert tortoise and during construction.	p28	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer Contractor	Construction						
BIO-13: Workers are prohibited from feeding all wildlife.	p28	Natural Environment Study - Minimal Impacts (12/30/2019)	District Design District Biological Studies Resident Engineer	Pre-Construction Construction						

Date of ECR: 03/27/2020
Date: MONTH DAY YEAR of approved ED

ENVIRONMENTAL COMMITMENTS RECORD
I-10 Replace Rock Slope Protection

08-RIV-010
PM R92.9/ R101.1

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

EA 08-1H200
PN 0816000177
Generalist: Natasha Walton
ECL: John Stanton

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
			Contractor							

Appendix E. List of Technical Studies

Natural Environment Study (Minimal Impacts) (December 2019)

Historic Property Survey Report (January 2020)

Initial Site Assessment Checklist (March 2020)

Aerially Deposited Lead Study (To be performed)

California Desert Hydrology Report (March 2020)

Air Quality Memorandum (March 2020)

Transportation Air Quality Conformity Findings Checklist (March 2020)

Paleontology Memorandum for Environmental Studies Request (March 2020)

Visual Impact Questionnaire (December 2019)

Scenic Resource Evaluation and Visual Impact Assessment Memorandum (December 2019)

Scoping Questionnaire for Water Quality Issues (March 2020)

Traffic Management Memorandum (February 2020)