Interstate 15 Regrade Center Median

SAN BERNARDINO COUNTY, CALIFORNIA
DISTRICT 08-SBD-15 (PM R96.10 - R103.5, R111.6 - R112.3,
and R120.1 - R124.24)
EA 08-1C7201 PN 0813000003

Initial Study
[with Proposed] Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

October 2021

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 alternatives being considered for the proposed project located in San Bernardino County, California. The document describes the project, the existing environment that could be affected by the project, potential impacts from the project, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- We welcome your comments. If you have any concerns about the project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:
  Shawn Oriaz, Senior Environmental Planner
  California Department of Transportation
  464 W. 4th Street, MS 827
  San Bernardino, CA 92401-1400
  Submit comments via email to: I15RegradeMedianProject@dot.ca.gov
- Submit comments by the deadline: November 12, 2021.

What happens next:

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

For individuals with sensory disabilities, this document is 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: Shawn Oriaz, Senior Environmental Planner, 464 W. 4th Street, MS 827, San Bernardino, CA 92401 (909) 501-5743; or call the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice), or 711

SCH#
08-SBD-15-PM R96.10-R103.5, R111.6 - R112.3,
and R120.1 - R124.24
1C7201
0813000003

Regrade median cross slopes from 6:1 or steeper to 10:1 or flatter on Interstate 15, at various locations to improve safety from Harvard Road to Rasor Road. (Postmile R96.10 to R103.5, R111.6 to R112.3, and R120.1 to R124.24) in the County of San Bernardino.

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 Agencies: California Transportation Commission

10/4/2021
Date

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

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

Shawn Oriaz
464 W. 4th Street, MS 827
San Bernardino, CA 92401
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Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to regrade the median cross slopes from the existing 6:1 or steeper to 10:1 or flatter on Interstate 15 (I-15) at various locations from Harvard Road to Rasor Road to improve safety. The work would include installing rock slope protection, extending culverts, constructing drainage inlets and installing metal beam guardrails as needed. This project is located in the County of San Bernardino near the city of Barstow.

The project includes three segments:

- Segment 1: PM R96.1 to R103.5
- Segment 2: PM R111.6 to R112.3
- Segment 3: PM R120.1 to R124.24

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a MND for this project. This does not mean that Caltrans' decision on the project is final. This Mitigated Negative Declaration 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: aesthetics, agriculture and forestry resources, air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise paleontology, population and housing, recreation, traffic and transportation, tribal cultural resources, utilities and service systems, public services, and wildfires.

In addition, the proposed project would have no significantly adverse effect on biological resources because the following mitigation measures would reduce potential effects to insignificance:

Compensatory Mitigation

Permanent and temporary impacts will be mitigated by purchase or creation credit from a bank; the acquisition of lands for conservation or other agency approved mitigation.

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

Date

Contents

Chapter 1 Introduction

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to regrade the median cross slopes from the existing 6:1 or steeper to 10:1 or flatter on Interstate 15 (I-15) at various locations from Harvard Road to Rasor Road to improve safety. The work would include installing rock slope protection, extending culverts, constructing drainage inlets, and installing metal beam guardrails (MGS) as needed. This project is located in the County of San Bernardino near the city of Barstow.

The project includes three segments:

- Segment 1: Post Mile (PM) R96.1 to R103.5
- Segment 2: PM R111.6 to R112.3
- Segment 3: PM R120.1 to R124.24

This project is included in the 2019 Federal Transportation Improvement Program (FTIP) and is proposed for funding from the SHOPP (State Highway Operation and Protection Program) Collision Reduction Program under 201.015/HB1 Program for delivery in the 2021/2022 Fiscal Year.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to:

- reduce the severity and the number of run-off-the road accidents in the median.
- improve the safety of the travelling public by regrading the median cross slopes inside the clear recovery zone from existing 6:1 or steeper gradients to 10:1 or flatter.
- improve the clear recovery zone.
- improve the safety of motorist by providing a clear recovery area and upgrading the existing highway safety features within the clear recovery area in order to reduce the number and severity of accidents.

1.2.2 Need

The need for the project is to improve the safety of the motorist from the run-off-road accidents. In its current condition, the proposed project limits from 0.3 miles south of Harvard Road (PM R96.1) to Rasor Road (PM R124.3) is in need of improvement due to non-standard median cross slopes. Based on Traffic Accident Surveillance and Analysis System (TASAS) report – Transportation System Network (TSN) between October 1, 2012 to September 30, 2015, the fatal accident rate within the proposed project limits exceeded the average fatal accident rate statewide for a similar type of facility. The occurrence of accidents caused these stretches of highway to be identified as locations that need to be improved to reduce the incidence and severity of accidents.

Regrading the existing median to a flatter slope will provide an errant vehicle the opportunity to regain control in order to avoid collision and return to the roadway.

July 8, 2021

Segment 1 PM R96.1 to R103.5

Segment 2 PM R111.6 to R112.3

Segment 3 PM R120.1 to 124.24

1:240,000

0 2 4 8 mi

0 3.25 6.5 13 km

Project Vicinity Map
EA 08-1C720
PN: 0813000003

1.3 Alternatives

This section describes the project alternatives that were studied. The alternatives are the Proposed Build Alternative and the No-Build Alternative.

1.3.1 No Build Alternative

Under the No Build Alternative, the existing facility would remain as it exists now. No improvement to the safety of the traveling public would be constructed. This alternative would not satisfy the purpose and need.

1.3.2 Proposed Build Alternative

Regrade the Median Cross-Slope to 10:1 or flatter
This alternative proposed to regrade the median cross slope to 10:1 or flatter on I-15 at various locations from Harvard Road (PM 96.1) to Rasor Road (PM R124.3) near Barstow in the County of San Bernardino. The work would include installing rock slope protection at culverts and washes to protect streambeds of these facilities. Drainage modification and improvements work will consist of reconstruction of existing off-site drainage facilities by extending the storm drain in the median. Regrading will not occur at the existing bridges in the median.

The existing California Highway Patrol (CHP) crossovers will be preserved, improved, or constructed, as needed, with the implementation of this alternative. The existing metal beam guardrails at culverts, washes, and bridges will need to be removed for the grading work and metal beam guardrails (MGS) will be installed, as needed. This alternative would not require additional right-of-way.

Temporary construction access may be constructed from the freeway shoulder into the median for material delivery and personal equipment access during construction. The project does not anticipate lane closures. The construction limits for each segment is PM R90.1 to 103.5, R111.6 to R112.3, and R120.1 to R124.3.

The capital cost for this alternative is estimated at $15,058,000. The estimated number of working days would be 250. If there are any changes to the project design, or if regulatory agency findings necessitate compensatory mitigation, the cost would be added to this estimate.

1.4 Permits and Approvals

Table 2. Permits and Approvals

Agency	Permits	Status
California Department of Fish & Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement	Application for the 1602 Agreement will occur during the Final Design phase of the project. The project will not proceed to construction before receiving the 1602 Agreement.

Agency	Permits	Status
Regional Water Quality Control Board (RWQCB)	Waste Discharge Requirement (WDR)	The Waste Discharge Requirement will be determined during the Final Design phase of the project. The project will not proceed to construction before receiving the Waste Discharge Permit.
US Army Corps of Engineers (USACE)	Approved Jurisdictional Determination	The Jurisdictional Determination will be approved during the Final Design phase of the project. The project will not proceed to construction before approval.
US Fish and Wildlife (USFWS)	Programmatic Biological Opinion	The Programmatic Biological Opinion has received concurrence from the USFWS.

Chapter 2 CEQA Environmental Checklist

08-SBd-15	R96.1-R103.5 / R111.6-R112.3 / R120.1-R124.3	0813000003
Dist.-Co.-Rte.	P.M/P.M.	Project ID#

2.1 Aesthetics

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

Question	CEQA Determination
a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
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?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

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]).

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

CEQA Significance Determinations for Aesthetics

a) No Impact: According to the Visual Impact Assessment (VIA), completed on August 3, 2021, the proposed project would not have an impact on a scenic vista because there would

not be a noticeable change to the existing environment. Therefore, proposed project would have no impact.

b) No Impact: This portion of the I-15 is not officially designated as a state scenic highway and there are no designated scenic highways within the project limits. Most of the land along I-15 is planned as Highway Commercial and Rural Commercial, except for the cities of Barstow and Needles that have residential communities near the route. The proposed project site would not damage any scenic resources or historic buildings. As such, there would be no impact.

c) No Impact: The existing visual character or quality of the site and its surroundings would remain the same as existing conditions; therefore, the project would not substantially degrade the area.

d) No Impact: The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for aesthetics.

2.2. Agriculture and Forest Resources

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

Question	CEQA Determination
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact

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 Map, there are no farmlands or vacant land mapped as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance within the vicinity.

b) No Impact: There are no Williamson Act parcels located within the project area.

c) No Impact: There are no forest lands, timberlands, or timberland production areas adjacent to or within the project site. The project area would not conflict with existing zoning for, or cause rezoning or forest land, timberland, or timberland zoned Timberland Production.

d) No Impact: The proposed project would not result in the loss or conversion of forest land.

e) No Impact: The project would not result in the conversion of farmland to non-agricultural use or forest land to non-forest use.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for agricultural and forest resources.

2.3. 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:

Question	CEQA Determination
a) Conflict with or obstruct implementation of the applicable air quality plan?	No Impact
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?	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

Regulatory Setting

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (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) No Impact: The proposed project is located in the western portion of the Mojave Desert Air Basin (MDAB). The Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over the project area and is responsible for bringing the Basin into attainment for federal and state air quality standards. To achieve this goal, MDAQMD prepares plans for the attainment of air quality standards, as well as maintenance of those standards once achieved. This 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. The project is listed in Table 1, Carbon Monoxide (CO) Protocol and is exempt from all air emissions analysis. Therefore, the proposed project will not conflict with the Air Quality Management Plan (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. No mitigation is required.

The proposed project is included in the 2019 Federal Transportation Improvement Program (FTIP) from the *2019 Grouped Project Detailed Backup Listings* on the Southern California Associated of Governments (SCAG) website.

As such, the proposed project would have no impacts.

b) No Impact: As discussed above, project construction would generate criteria pollutants and their precursors. However, such emissions would be short term and transitory, and fugitive dust would be limited. No net increase in operational emissions would occur, traffic volumes would be the same under the Project Alternatives and No-Build Alternative. The project would result in short-term generation of emissions, but no increases would occur for project operation and no impacts related to a cumulatively considerable net increase of any criteria pollutant.

c) No Impact: No impacts related to exposure of sensitive receptors to substantial pollutant concentration would occur. California Air Resources Board (CARB) characterizes sensitive land uses as simply as possible by using the example of residences, playgrounds, and medical facilities. However, there are none of these sensitive receptors in the nearby vicinities[1].

d) No Impact: According to the CARB, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. Because the project would not include any of these types of uses, and no sensitive land uses are located along the alignment, no impacts would occur.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required for agricultural and forest resources.

[1] California Environment Protection Agency, California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective (2005), Page 2. www.arb.ca.gov/ch/landuse.htm

2.4. Biological Resources

Would the project:

Question	CEQA Determination
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?	Less Than Significant Impact
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?	Less Than Significant with Mitigation Incorporated
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?	No Impact
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?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

WETLANDS AND OTHER WATERS

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may

substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

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

PLANT SPECIES

Regulatory Setting

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

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

The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

ANIMAL SPECIES

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. 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 or NOAA Fisheries Service candidate species.

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

Regulatory Setting

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.

CEQA Significance Determinations for Biological Resources

a) Less than Significant Impact:

Special-Status Plant Species

The search of the CDFW and California Natural Diversity Database (CNDDB) inventory database indicate that ten special-status (rare) plant species have the potential to occur within the project site. The ten plant species include small-flowered androstephium *(Androstephium breviflorum*), Borrego milk-vetch (*Astragalus lentiginosus* var. *borreganus*), black grama (*Bouteloua eriopoda*), Emory's cruxifixion-thorn (*Castela emoryi*), short-pedicelled cleomella (*Cleomella brevipes*), ribbed cryptantha (*Johnstonella costata*), Harwood's riastrum (*Eriastrum harwoodii*), Utah vine milkweed (*Funastrum utahense*), Parish's popcornflower (*Plagiobothrys parishii*), and jackass-clover (*Wislizenia refracta* ssp. *refracta*).

No special-status (rare) plant, including the ten target special-status (rare) plant species known from the vicinity of the Project site were detected on the Project sire or in the

immediate vicinity. Due to a combination of the lack of suitable habitats, the site's elevation, and the generally disturbed nature of the majority of the survey area; these species are considered to be currently absent from the site.

In order to ensure no impacts occur on special-status (rare) plant species, standard measures (BMPs) will be implemented.

Habitats and Natural Communities of Special Concern

A total of 27 special-status biological resources have been reported within the vicinity of the Project site.

Of the 27 special-status resources, only the desert tortoise *(Gopherus agassizii)* had habitat present. However, there were no desert tortoises or signs thereof that were observed during the focused survey.

Since there is no suitable habitat in the BSA for Natural Communities of Concern, the project will not impact Natural Communities of Concern.

In order to ensure no impacts occur to the desert tortoise, BIO-7, BIO-8, BIO-9, BIO-10, BIO-13, BIO-14, BIO-15, BIO-16, BIO-17, BIO-18, BIO-26, BIO-27, BIO-28, BIO-29, BIO-30, BIO-31, and BIO-32 will be implemented.

Special-Status Animal Species

The project site contains habitat that is potentially suitable for the desert tortoise *(Gopherus agassizii)* and burrowing owl *(Athene cunicularia)*. A focused survey for the desert tortoise and a habitat assessment for the burrowing owl was conducted on April 26 and April 27, 2017.

The project will implement avoidance and minimization measures, BIO-7, BIO-8, BIO-9, BIO-10, BIO-13, BIO-14, BIO-15, BIO-16, BIO-17, BIO-18, BIO-26, BIO-27, BIO-28, BIO-29, BIO-30, BIO-31, BIO-32, BIO-38 and BIO-39 to ensure the project will not impact desert tortoises and burrowing owls.

Reptile and Amphibian Species

Reptiles and Amphibians were observed on or adjacent to the site while conducting field surveys. The side-blotch lizard, Great Basin whiptail, and Mohave shovel-nose snake were observed but are not considered to be of special-status.

The project would not impact special-status amphibian species.

Mammalian Species

The literature review revealed records of four special-status mammals from the vicinity of the project site. These included the pallid bat *(Antrozous pallidus)*, Townsend's big-eared bat *(Corynorhinus townsendii)*, fringed myotis *(Myotis thysanodes)*, and desert bighord sheep *(Ovis canadensis nelsoni)*. These four species are not listed as federally- and/or state

listed as endangered or threatened by the USFWS and CDFW. The pallid bat and Townsend's big-eared bat are designated as Species of Special Concern (SSC) by the CDFW and managed as sensitive by the BLM, the fringed myotis is considered sensitive by the BLM, while the desert bighorn sheep is a CDFW-fully protected species and also managed as sensitive by the BLM.

Surveys were not conducted for these four species since the project site does not support suitable roosting habitat or hibernacula for the bats and also does not contain steep, mountainous habitat suitable for desert bighorn sheep. The site is located less than three miles north of an essential water source at Afton Canyon, and approximately six miles west of another permanent water source at the Zzyzx Desert Studies Center. Suitable habitat for all four of these species is present on the various rocky hills to the north and south of the Project segments.

Impacts to the pallid bat, Townsend's big-eared bat, fringed myotis, and/or the desert bighorn sheep are not expected. There is a very remote chance for these species to traverse the project site in transit between potentially-occupied steep, mountainous habitat to the south and north, and the perennial water sources discussed above.

Fish Species

The literature review revealed records for one special-status fish in the vicinity of the Project site: Mohave tui chub *(Gila [Siphateles] bicholor mohavensis)*. The fish species is listed as endangered by the USFWS and the CDFW. In relation to the project site, this species is known from Afton Canyon and the Mojave River at Camp Cady Ranch. The Project site does not have any habitat for this species.

Therefore, the project would have less than significant impact.

b) Less than Significant with Mitigation: A 1602 Streambed Alteration Agreement is required for all activities that alter streams and lakes and their associated riparian habitat. The project will require mitigation to comply with the CDFW "no net loss" policy. Pursuant to Section 1600 of the Fish and Game Code, a Lake and Streambed Alteration Agreement (LSAA) would be required from the CDFW. The project occurs within the South Lahontan River Basin RWQCB (Region 6). Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards. Compensatory mitigation required by the RWQCB and/or CDFW will be determined in coordination with CDFW and RWQCB during the 1602 and Waste Discharge Requirement permitting process.

A total of 27 special-status biological resources have been reported within the vicinity of the Project site. Only 8 of the 27 special-status species has habitat present but none of the species were detected.

No Natural Communities of Concern were identified in the CNPS or CNDDB query as having the potential to occur within the region surrounding the BSA. Therefore, the project would not impact Natural Communities of Concern.

c) No Impact: The on-site drainages are ephemeral and likely flow for less than 3 months per year, and therefore be classified as non-relatively permanent waterways (RPWs) by the U.S. Army Corp of Engineers (USACE). As defined by 33 CFR 328.3, the on-site drainages and downstream waterbodies do not meet criteria (a)(3)(i-iii), as they: i) Do not have use for surface water recreation or other purposes by foreign or interstate travelers, ii) Do not have harvesting activities of fish or shellfish that may be sold in interstate or foreign commerce, and iii) Do not have surface water industrial usage by industries in interstate commerce. The on-site drainages themselves are not (a)(3) waters as defined by 33 CFR 328.3. Since the downstream waterbodies are isolated intrastate waters without a surface water connection to commerce, the on-site drainages, as part of the overall watershed system, are also isolated and additionally have no nexus to commerce. Therefore, the on-site drainages (isolated non-RPWs) are non-jurisdictional Waters of the United States (WUS), since the waters are not tributary to either a traditionally navigable waterway (TNW) or an (a)(3) water and are not (a)(3) waters themselves. However, the USACE is ultimately responsible for jurisdictional determinations; and the proposed Project may require temporary and permanent impacts to drainages and therefore, authorizations from the USACE, Regional Water Quality Control Board (RWQCB), and CDFW may be required. Pending final determination by USACE, a 404 permit should not be required.

d) No Impact: The project area is outside of the NOAA Fisheries jurisdictional area. There is no suitable aquatic habitat for special-status fish species in the BSA. Therefore, the proposed project has no potential to impact special-status fish species or NOAA Fisheries-protected resources.

e) No Impact: The proposed project would not conflict with any local policies or ordinances protecting biological resources. Therefore, the proposed project will have no impact.

f) No Impact: Project implementation would not conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, there would be no impact.

Avoidance and Minimization Measures

BIO-1 Equipment Staging: Equipment, vehicles, and materials staged and stored in Caltrans right-of-way will be sited in the median areas within project limits only.

BIO-2 Standard Best Management Practices (BMPs): BMPs that are required and implemented for all Caltrans' projects are expected to avoid impacts to special-status natural resources (i.e. hydrology, vegetation communities, water quality, etc.) located off-site in the adjacent ACECs and DWMA.

BIO-3 Species Protection: Contractor will submit the names and qualifications of biologists who they believe meet the minimum requirements to serve as Authorized Biologists to the United States Fish and Wildlife Service (USFWS) prior to beginning on-site activities. Once a biologist has been authorized by the USFWS, that individual may work on

subsequent projects pursuant to this biological opinion without additional approval, provided that his or her performance remains satisfactory. Caltrans will maintain a record of all Authorized Biologists who work on its projects.

BIO-4 Biological Monitor: Caltrans will designate, on a project-by-project basis, an authorized biologist to be responsible for overseeing compliance with all protective measures and with coordination with the Service. The authorized biologist will immediately notify the resident engineer of project activities that may be in violation of the biological opinion. In such an event, the resident engineer can halt all construction activities until all protective measures are being fully implemented, as determined by the authorized biologist.

BIO-5 Species Protection: A resident engineer is, according to Caltrans' May 2006 Standard Specifications, "the Chief Engineer, Department of Transportation, acting either directly or through properly authorized agents, the agents acting within the scope of the particular duties delegated to them." The resident engineer has authority over the contract and is responsible for all aspects of the specific projects to which he or she is assigned. The resident engineer has the authority to stop work on a project. The authorized 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 tortoise.

BIO-7 Species Protection - 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 DT will be conducted by the authorized biologist, as appropriate. The entire project area will be surveyed for DT and their burrows by the authorized biologist or approved desert tortoise monitor before the start of any ground-disturbing activities following the 2010 field survey protocol (Service 2010) or more current approved protocol. If burrows are found, they will be examined by the authorized biologist to determine if DT are present. If a tortoise is present and the burrow cannot be avoided, it will be relocated in accordance with Service protocol (Service 2010). If the authorized biologist determines clearance surveys are not needed, clearance surveys would not be required. If DT are found at a project site where Caltrans (or the authorized biologist) had previously concluded they were unlikely to occur, Caltrans will contact the USFWS to determine if the implementation of additional protective measures would be appropriate.

BIO-8 Species Protection - For construction projects determined likely to may affect desert tortoise, an education program will be developed and presented by the authorized biologist prior to the onset of ground-disturbing activities to be conducted under the auspices of this consultation. All onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel employed for a project will be required to participate in an education program regarding the DT before performing on-site work. The program will consist of a class presented by the authorized biologist or a video, provided the authorized biologist is present to answer questions. Wallet-sized cards or a one-page handout with important information for workers to carry are recommended as a future reference and a reminder of

the program's content. The program will cover the following topics at a minimum: - the distribution, general behavior, and ecology of the DT; - its sensitivity to human activities; - the protection it is afforded by the Endangered Species Act; - penalties for violations of State and Federal laws; - notification procedures by workers or contractors if a tortoise is found in a construction area, and; - protective measures specific to each project.

BIO-8 Species Protection - Whenever project vehicles are parked outside of a fence that is intended to preclude entry by desert tortoises, workers will check under the vehicle before moving it. If a DT is beneath the vehicle, the worker will notify the authorized biologist or approved desert tortoise monitor to relocate the tortoise. If the authorized biologist is not present on-site, the RE or supervisor must notify an authorized biologist. Workers will not be allowed to capture, handle, or relocate tortoises.

BIO-9 Species Protection - Whenever project vehicles are parked outside of a fence that is intended to preclude entry by desert tortoises, workers will check under the vehicle before moving it. If a DT is beneath the vehicle, the worker will notify the authorized biologist or approved desert tortoise monitor to relocate the tortoise. If the authorized biologist is not present on-site, the RE or supervisor must notify an authorized biologist. Workers will not be allowed to capture, handle, or relocate tortoises.

BIO-10 Species Protection - The area of disturbance will be confined to the smallest practical area, considering topography, placement of facilities, location of burrows, public health and safety, and other limiting factors. This measure includes temporary haul roads, staging/storage areas, or access roads. Work area boundaries will be clearly and distinctly delineated with flagging or other marking to minimize surface disturbance associated with vehicle movement. Special habitat features, such as DT burrows, will be identified and marked as environmentally sensitive areas by the authorized biologist, if they are to be avoided and will be discussed and identified during the worker education program. To the extent possible, previously disturbed areas within the Caltrans ROW will be used for equipment storage, office trailer locations, and vehicle parking. The development of all temporary access and work roads associated with construction will be minimized and constructed without blading where feasible. Project-related vehicle traffic will be restricted to established roads, construction areas, staging/storage areas, and parking areas. The RE and authorized biologist will ensure that blading is conducted only where necessary.

BIO-11 Species Protection - Caltrans will require all contractors to comply with the Federal Endangered Species Act in the performance of work necessary for project completion. Evidence of compliance is required prior to Caltrans accepting or receiving materials or goods produced from outside of the ROW or through the use of facilities located outside of the ROW, including but not limited to, non-commercial batch plants, haul roads, quarries, and similar operations. Copies of the compliance documents will be maintained at the work-site by the RE.

BIO-12 Species Protection - The RE is responsible for ensuring that all protective measures are being fully implemented. If the RE determines, or is notified by the authorized biologist, that one or more protective measures are not being fully implemented, he or she

will halt all activities that are out of compliance until all problems have been remedied. All workers, authorized biologists, and biological monitors will be required to notify the RE of any such problem they notice. The RE must always be able to contact an approved biological monitor or authorized biologist to resolve any unforeseen issues.

BIO-13 Species Protection - Caltrans will determine whether the presence of authorized biologists and approved desert tortoise monitors will be required during project activities. In general, where the risk to desert tortoises is low, the authorized biologist or approved biological monitor will be present at the onset of the project to ensure protective measures are in place and will, if necessary (for example, for projects that will require a substantial length of time to complete), conduct periodic field checks to ensure compliance.

BIO-14 Species Protection - Permanent or temporary exclusion fencing may be used to prevent entry by desert tortoises into a work site, if Caltrans and the authorized biologist determine this measure is appropriate. Exclusion fencing will be installed following Service guidelines (2005) or more current protocol. The authorized biologist will ensure that desert tortoises cannot pass under, over, or around the fence. If such a fence is used, authorized biologists or desert tortoise monitors will not be required to be present at the site at all times. However, the authorized biologist must periodically check the fenced area to search for breaks in the fence and to ensure no desert tortoises have breached the fence. Preconstruction surveys for tortoise and tortoise sign will be performed within all proposed construction areas prior to the fence being installed. In addition, prior to ground disturbing activities beginning in a previously undisturbed or unfenced area, preconstruction surveys will be performed.

BIO-15 Species Protection - Upon locating a dead or injured tortoise within a project site, the RE will immediately notify the authorized biologist. Written notification must be made to the appropriate Fish and Wildlife field office within 5 days of the finding. The information provided must include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death or injury, if known, and other pertinent information (i.e., size, sex, recommendations to avoid future injury or mortality).

BIO-16 Species Protection - Injured DT will be transported to a veterinarian for treatment at the expense of the contractor or Caltrans. Only the authorized biologist or an approved desert tortoise biological monitor will be allowed to handle an injured tortoise.

BIO-17 Species Protection - Caltrans will notify the authorized biologist or approved desert tortoise monitor to collect and place the remains of intact DT carcasses with educational or research institutions holding the appropriate State and Federal permits per their instructions. If such institutions are not available or the animal's remains are in poor condition, the information noted in this section will be obtained and the carcass left in place. If left in place and sufficient pieces are available, the authorized biologist will attempt to mark the carcass to ensure that it is not reported again.

BIO-18 Species Protection - If working outside of a DT proof area, auger holes or other excavations will be covered following inspection at the end of each workday to prevent DT from becoming trapped.

BIO-19 Species Protection -When feasible or practicable, construction vehicles will be cleaned of all mud, dirt, and debris from other sites prior to entering the project area. The purpose of this measure is to minimize the spread of weedy plant species that may degrade desert tortoise habitat.

BIO-20 Species Protection -Except on maintained public roads designated for higher speeds or within a desert-tortoise proof fenced area, driving speed will not exceed 20 miles per hour through potential desert tortoise habitat on both paved and unpaved roads.

BIO-21 Species Protection - Any fuel or other hazardous materials spills will be promptly cleaned up; any leaks from equipment will be stopped and repaired immediately. Vehicle and equipment fluids that are no longer useful will be transported to an appropriate off-site disposal location. Fuel and lubricant storage and dispensing locations will be constructed to fully contain spilled materials until disposal can occur. Hazardous waste, including used motor oil waste and coolant, will be stored and transferred in a manner consistent with applicable regulations and guidelines.

BIO-22 Species Protection -Plant species listed in Lists A and B of the California Exotic Pest Plant Council's list of exotic pest plants (latest edition) will not be used to restore or stabilize areas within or near desert tortoise habitat.

BIO-23 Species Protection – Upon completion of construction, all refuse, including, but not limited to equipment parts, wrapping material, cable, wire, strapping, twine, buckets, metal or plastic containers, and boxes will be removed from the site and disposed of properly.

BIO-24 Species Protection - No firearms or pets, including dogs, will be allowed within the work area. Firearms carried by authorized security and law enforcement personnel and working dogs under the control of a handler will be exempt from this protective measure.

BIO-25 Species Protection - To preclude attracting predators, such as the common raven (*Corvus corax*) and coyotes (*Canis latrans*), food-related trash items will be removed daily from the work site and disposed of at an approved refuse disposal site. Workers are prohibited from feeding all wildlife.

BIO-26 Species Protection - During all off-road cross-country travel outside of any area surrounded by desert tortoise-proof fencing, the authorized biologist will select and flag the access route to avoid burrows, to minimize disturbance of vegetation, and to relocate any desert tortoises that are found in the access route, out of harm's way. The authorized biologist will walk in front of the lead vehicle to ensure that no desert tortoise or burrows are present. All vehicles will follow the lead vehicle's tracks and stay within the designated access route.

BIO-27 Desert Tortoise Fencing - Desert tortoise exclusion fence construction will follow the guidelines in chapter 8 of the Desert Tortoise Field Manual (Service 2010) which is available at the VFWO website (www.fws.gov/ventura).

BIO-28 Desert Tortoise Fencing - When gates are installed within the fence: line, desert tortoise-proof fencing will be installed along the gate bottom beginning at least 2 feet above the fence bottom and extending and extending towards the ground leaving less than a 1-inch gap (Service 2010).

BIO-29 Desert Tortoise Fencing - All desert tortoise fences, gates, and cattle guards will be regularly maintained at a frequency sufficient to ensure that they will continually provide an effective barrier to passage of desert tortoises.

BIO-30 Desert Tortoise Fencing - Desert tortoise-proof fencing will not cross washes. When washes and culverts are encountered, the desert tortoise-proof fence will follow the wash to the roadway and either tie into the existing bridge or cross over the top of a culvert.

BIO-31 Species Protection - During fence inspections and repair, if any desert tortoises are observed, workers are to notify the authorized biologist because only authorized biologists and approved biological monitors are permitted to handle tortoise. All desert tortoises encountered within the roadway side of the fence will be relocated across the fence to safety in accordance with Service protocol (Service 2010).

BIO-32 Species Protection - On a case by case basis, individual active burrows may be fenced if the authorized biologist determines this protective measure is necessary to prohibit DT from repeatedly entering work areas. Fencing around individual burrows will be removed when adjacent construction is complete.

BIO-35 Desert Tortoise Monitoring Reports: The contractor-supplied biologist will conduct daily on-site monitoring and submit a weekly report for desert tortoise during construction. The monitoring reports will include photos of desert tortoise temporary fencing installation and upkeep, and a copy will be provided to Caltrans.

BIO-36 Preconstruction Nesting Bird Survey: If Project activities cannot be avoided during the nesting period from February 15 through September 1, a qualified biologist will survey the entirety of the project area prior to commencing Project related activities. The surveys will be conducted by the biologist at the appropriate time(s) of day, no more than three days prior to commencement of Project activities. If an active avian nest is located, a 100 foot no construction buffer (300 foot for raptors) will be put in place until nesting has ceased or the young have fledged. The biologist will monitor the nest to ensure that impacts to nesting birds do not occur.

BIO-37 Vegetation Removal - To avoid impacts to migratory birds, vegetation removal must take place outside of the breeding season, in which the breeding season is regarded as February 1 – September 30.

BIO-38 Species Protection - Burrowing owl pre-construction surveys are to be conducted by the authorized biologist before work crew work within an area.

BIO-39 Species Protection - The authorized biologist will monitor the project as needed and/or required. If project activity has the potential to damage a burrow/nest of the Burrowing Owl, work must be halted until the authorized biologist clears the work. If an Owl is injured or killed, the Caltrans Environmental Stewardship Monitoring Branch must be notified.

BIO-40 Species Protection – The authorized 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 bighorn sheep and to direct movements of equipment and personnel to avoid injury or mortality to this species.

- Presence/Absence Roosting Bat Survey: Presence/Absence roosting bat surveys will be conducted by a qualified biologist at Bridge #54-0364 Afton Road at PM 111.59 and any suitable culvert locations prior to commencing Project related activities. The surveys will be conducted by the qualified biologist at the appropriate time(s) of day, no more than three days prior to commencement of Project activities. If a maternity roost is present, then the Project should be scheduled outside of the maternity season (March through July) in an effort to prevent indirect impacts on nearby maternity roosts. If a non-maternity roost is present, then artificial lighting for the Project site, if applicable, is to be directed specifically at the work site only and be set up one hour prior to sunset. A qualified biologist should also be present on-site to monitor construction.

2.5. Cultural Resources

Would the project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less Than Significant Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact

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

CEQA Significance Determinations for Cultural Resources

a) No Impact. According to the *Historic Property Survey Report for EA 1C720* completed on December 13, 2017 for this project, there are cultural resources within the APE that were previously determined not eligible for inclusion in the National Register of Historic Places (NRHP) and/or not eligible for registration as a California Historical Landmark (CHL) with State Historic Preservation Officer (SHPO) concurrence and those remain valid.

Although the project is expected to have no impact, an Archaeological Monitor would be present during construction sign placement and removal activities. An ESA fence would be installed at approx. PM R120.08 to R120.78 ensure that the archaeological resources would not be affected. Therefore, there would be no impacts on historic properties.

b) Less Than Significant Impact. Caltrans, pursuant to Section 106 PA Stipulation X.B.1.a/b and Attachment 5 and as applicable PRC 5024 MOU Stipulation X.B.1.a/b and Attachment 5, has determined a Finding of No Adverse Effect (with Standard Conditions-ESA) is appropriate for this undertaking and is hereby notifying CSO of this finding. Steven Holm, who meets the PQS Standards in Section 106 PA Attachment 1 and as applicable PRC 5024 MOU Attachment 1 as a(n) Principal Investigator, Historic Archaeology has reviewed the attached documentation and determined that it is adequate. Therefore, there will be less than significant impacts.

c) No Impact. On August 11, 2017, the Native American Heritage Commission (NAHC) was contacted, requesting a search of the Sacred Lands File and a list of Native American contacts. A response was received from the NAHC on August 23, 2017 stating that a total of seven groups were on the contact list. Per the DNAC, letters were sent to three groups.

However, standard Caltrans design features would be included in the project in the event that any inadvertent discoveries are encountered.

Assembly Bill 52
AB 52 consultation was initiated on June 9, 2021. Caltrans contacted San Manuel Band of Mission Indians. The Tribe responded on June 23, 2021 and requested for measures to be included on the project. The measures are covered by Caltrans Standard Specifications and CR-1 and CR-2.

Caltrans also contacted the Serrano Nation and Twenty-Nine Palms Band of Mission Indians. Caltrans did not receive a response.

Avoidance, Minimization, and/or Mitigation Measures

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

CR-2: In the event that human remains are found, the county coroner should be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to California PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendant (MLD). The person who discovered the remains will District 8 Division of Environmental Planning; Andrew Walters, DEBC [(909) 260-5178] or Gary Jones, District Native American Coordinator (DNAC) [(909) 261-8157]. Further provisions of PRC 5097.98 are to be followed as applicable.

2.6. Energy

Would the project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

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 consumption of resources during construction or operation. The proposed project would have no impact.

b) No Impact: The proposed project does not conflict with any known state or local plan for renewable energy or energy efficiency. Therefore, there would be no impacts.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for energy.

2.7. Geology and Soils

Would the project:

Question	CEQA Determination
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.	No Impact
ii) Strong seismic ground shaking?	No Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No Impact
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?	No Impact
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?	No Impact
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?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

Regulatory Setting

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

CEQA Significance Determinations for Geology and Soils

a i), aiii) No Impact: According to the California Department of Conservation Earthquake Zones of Required Investigation Maps, the proposed project location is near a couple Alquist-Priolo Earthquake Fault Zones. The purpose and need of the project is to regrade the

median which would not directly or indirectly cause potential adverse effects. No impacts would occur.

a ii) No Impact: According to the Southern California Earthquake Data Center, Manix Fault runs along Segment 1 of the project limits. The most recent surface rupture was April 10, 1947. Approximate 3 miles south of Segment 1, Calico Fault ruptured on March 18, 1997. All Caltrans projects follow the Standard procedures regarding seismic design to avoid or minimize any significant impacts related to seismic ground shaking. The proposed project would result in no impact because project construction and operation would have no opportunity to rupture a known earthquake fault of cause seismic shaking.

a iii) No Impact: The San Bernardino County Geologic Hazard Overlay Map for the Yermo (EI02C) and Newberry Springs (EI03C) Region does not identify any geologic hazards for the project. The area does not have a potential for liquefaction hazards. There would be no impacts.

a iv) No Impact: Landslides are mass movements of the ground that include rock falls, relatively shallow slumping and sliding of soil, and deeper rotational or transitional movement of soil or rock. Impacts associated with landslides or mudslides are not anticipated in the project area since the project area is relatively flat. Based on a review of the San Bernardino County Geologic Hazard Overlay Map, there is not a possibility for a landslide. No impacts would occur.

b) No Impact: Project does not anticipate any substantial loss of soil erosion or topsoil. No impacts would occur.

c) No Impact: The San Bernardino County Land Use Plan General Plan Geologic Hazard Overlay Map does not identify any geologic hazards for the project. It also does not identify any land within the project limits as susceptible to landslides or liquefaction. Therefore, there are no impacts.

d) No Impact: The San Bernardino County Land Use Plan General Plan Geologic Hazard Overlay Map does not identify any geologic hazards for the project. It also does not identify any land within the project limits as susceptible to landslides or liquefaction, which implies the absence of expansive soil. Therefore, there would be no impacts.

e) No Impact: Septic tanks or alternative wastewater disposal systems would not be part of the proposed project. Therefore, there would be no impacts.

f) No Impact: The proposed project is occurring on an existing paved highway and would not destroy a unique paleontological resource or site or unique geologic feature. Therefore, there would be no impacts.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for geology and soils.

2.8. Greenhouse Gas Emissions

Would the project:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact

CEQA Significance Determinations for Greenhouse Gas Emissions

a) Less Than Significant Impact: While the 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. Therefore, there would be no impact.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for greenhouse gas emissions.

2.9. Hazards and Hazardous Materials

Would the project:

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

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. Implementation of the proposed project is not expected to result in the creation of any new hazards or expose people to potential new health hazards. No storage of toxic materials or chemicals would occur, and the project is not anticipated to increase the potential hazardous materials in the project area. The Initial Site Assessment Checklist completed for the project determined the hazardous waste involvement to be low.

b) No Impact. The proposed project is not anticipated to result in a release of hazardous materials into the environment. Standard construction practices would be observed such that any materials released are appropriately contained as required by local and state law. Therefore, the proposed project is expected to result in no impacts.

c) No Impact. The project will not emit hazardous emissions or handle hazardous waste within one- quarter mile of a school. The proposed project will have no impacts.

d) No Impact. No potentially hazardous waste sites were listed on the GeoTracker and Envirostor database on or near the project location. No underground storage tanks, surface tanks, sumps, ponds, drums, basins, transformers, or landfills were identified. Furthermore, no surface staining, oil sheen, odors, or vegetation damage was identified on the ISA Checklist. The project will result in no impacts.

e) No Impact. The proposed project is not within two miles of a public airport or public use airport. Nor would the project result in a safety hazard for people residing or working in the project area.

f) No Impact. The project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project is expected to result in no impacts.

g) No Impact. The proposed project area is not located within a fire hazard zone and consists of desert flora and fauna, with very limited resources or potential to result in a fire hazard. There will be no impacts.

Avoidance, Minimization, and/or Mitigation Measures

HAZ-1: A Task Order is being conducted for Aerially Deposited Lead (ADL) to determine if special handling and/or removal is needed.

2.10. Hydrology and Water Quality

Would the project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	No Impact
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;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

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

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

State Water Resources Control Board and Regional Water Quality Control Boards

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

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

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

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

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

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

3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

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

Construction General Permit

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

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

Section 401 Permitting

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

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

CEQA Significance Determinations for Hydrology and Water Quality

a) No Impact: The Proposed Build Alternative would not violate any water quality standards or waste discharge requirements. The project would require implementation of BMPs during both construction and operation of the project. Upon adherence to these requirements and implementation of BMPs, no impacts would occur in this regard during construction.

b) No Impact: Implementation of the project would not deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or a lowering of the groundwater table level. The proposed project is not anticipated to affect the amount of water consumed regionally through increased withdrawals from ground water sources. As such, the proposed project would have no impacts.

c) i), No Impact: The SQWQI indicates that when storm water falls on the existing system within the proposed project area, it moves as sheet flow. The drainage in the proposed project would include a few pipe extensions in the median. The storm water that falls within the proposed project boundary, to the intermittent streams, and it is discharged into East Cronise Lake and/or Mojave River. However, Caltrans does not discharge storm water from the highways causing or contributing to the reasons for the impairment of the receiving water. The scope of work will reduce the slope angle from 6:1 to 10:1, reducing the potential for soil erosion. The proposed project would have no impacts.

c) ii) Less Than Significant Impact: The proposed project would consist of drainage modifications and improvements of existing off-site drainage facilities by extending the storm drain in the median. The regrade of the median would change the total volume and shape of the channel but wouldn't increase the rate or amount of surface runoff that would result in flooding. The proposed project would not alter water flow direction nor raise the channel bottom elevation. Hydraulics Design used Flow master to analyze the proposed channel design and the data displayed adequate drainage with no over topping. Therefore, the proposed project would have less than significant impacts.

c) iii) No Impact: According to the Scoping Questionnaire for Water Quality Issues, the proposed project would not create or contribute runoff. The project does not propose an increase in impervious surface area. As a result, the project would have no impact.

c) iv) No Impact: The proposed project would not impede or redirect flood flows. There will be no impacts.

d) No Impact: According to the Flood Insurance Rate Map (FIRM), provided by the Federal Emergency Management Agency (FEMA), the proposed project area is in the San Bernardino County Unincorporated Areas Zone D. FEMA classifies Zone D as an area where there are possible but undetermined flood hazards, as no analysis of flood hazards has been conducted. The proposed construction within Zone D is incidental, minor in nature, and will not have any significant adverse effect on the floodplain. The proposed project would not risk the release of pollutants due to project inundation. Therefore, the project would have no impacts.

e) No Impact: The project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, there will be no impacts.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for hydrology and water quality.

2.11. Land Use and Planning

Would the project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

CEQA Significance Determinations for Land Use and Planning

a) No Impact: Implementation of the proposed project locations would not divide an established community, as the location is already disturbed and located on the State Route. Therefore, the project will have no impacts.

b) No Impact: According to the San Bernardino County Land Use Plan, Land Use Zoning Districts Map, the project area is mapped Highway Commercial and Rural Commercial. The proposed project would not conflict with any applicable land use, plan, policy, or regulation. The project will have no impacts.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for land use and planning.

2.12. Mineral Resources

Would the project:

Question	CEQA Determination
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

CEQA Significance Determinations for Mineral Resources

a) No Impact: According to the California Department of Conservation, Mineral Lands Classification Map, the proposed project is underlain by Miocene lacustrine limestone, tuffaceous sandstone, and clay. The San Bernardino County General Plan Policy Map NR-4 Mineral Resource Zones shows a few locations classified as "Moderate Potential or Possible Location" near Segment 1 of the proposed project area. However, the purpose and need of the project is to regrade the median which is a previously disturbed area. Therefore, there would be no impacts to the mineral resources, and it would not result in the loss of availability to the region or the residents of the state.

b) No Impact: The proposed project would not result in the loss of available mineral resources of value to the region, residents of the state, or locally-important sites. As such, the proposed project will have no impacts.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for mineral resources.

2.13. Noise

Would the project result in:

Question	CEQA Determination
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?	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

Regulatory Setting

California Environmental Quality Act

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

CEQA Significance Determinations for Noise

a) No Impact. The project would not expose people to or generate noise levels in excess of standards established in a general plan or noise ordinance, or applicable standards of other agencies. The project is a Type III project under 23 CFR 772.7; therefore, Caltrans Engineering determined that a noise study report was not required for the project. There would be no noise impact.

b) No Impact. Any groundborne noise or vibration would be limited to the construction period and would be short in duration. Because there are no noise- or vibration- sensitive uses located in the immediate project vicinity and because the proposed project would comply with Caltrans' Standard Specifications, no impacts would occur.

c) No Impact. The proposed project is not within two miles of an airport and there are no habitable structures near the proposed project. Therefore, no noise impacts related to air traffic would occur.

Avoidance, Minimization, and/or Mitigation Measures

NOISE-1: Construction will be conducted in accordance with applicable local noise standards and Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2018 Standard Specifications.

2.14. Population and Housing

Would the project:

Question	CEQA Determination
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

CEQA Significance Determinations for Population and Housing

a) No Impact: The purpose of the project is to reduce the severity and the number of run-off-the-road accidents in the median by regrading it. The proposed project would not induce substantial population growth in an area, either directly or indirectly. Therefore, there will be no impacts.

b) No Impact: The proposed project would not necessitate the relocation of any developments and/or people. Right of way (ROW) would not be acquired for this project, as all work would be done within Caltrans' ROW. Therefore, no impacts on population and housing would occur as a result of the proposed project.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for population and housing.

2.15. Public Services

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 following public services:

Question	CEQA Determination
a) Fire protection?	No Impact
b) Police protection?	No Impact
c) Schools?	No Impact
d) Parks?	No Impact
e) Other public facilities?	No Impact

CEQA Significance Determinations for Public Services

a) No Impacts

Response to Fire protection and Police protection: No Impact. The proposed project would not affect the level of service on I-15. The proposed project would not result in an increase in population, and therefore would not increase the demand for community services. No fire stations would be acquired or displaced. The project would not induce growth or increase population in the study area or the greater community beyond that previously planned for and would not result in the need for additional fire protection. Therefore, there would be no impacts.

Response to Schools: No Impact. No schools are located near the project vicinity. The proposed project would not result in accessibility problems to existing schools and is not expecting to result in any other impacts on school services. As such, there are no impacts.

Response to Parks: No Impact. No parks exist near the project vicinity. No Right-of-Way is expected for this project; therefore, there would be no impacts.

Response to Other Public Facilities: No Impact. There are no public facilities in the immediate project area. Therefore, there would be no impact on public facilities as a result of construction or operation of the project.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for Public Services.

2.16. Recreation

Question	CEQA Determination
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact

CEQA Significance Determinations for Recreation

a) No Impact: The proposed project does not have the capacity to generate a substantial increase to use of any existing neighborhood parks, regional parks, or other recreational facilities such that physical deterioration would occur. Therefore, there are no impacts.

b) No Impact: The project would not require the construction or expansion of recreational facilities. As such, no impacts are anticipated.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for recreation.

2.17. Transportation / Traffic

Would the project:

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

CEQA Significance Determinations for Transportation/Traffic

a) No Impact: The Caltrans District 8 State Highway System Bicycle Access Map indicates that bicyclists can ride on the shoulder of this segment of I-15. The Proposed Alternatives will not impact current bicycle use within the project limits. Inclusion of complete streets was determined unsuitable since the purpose of the project is to regrade the median. The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

b) No Impact: The proposed project would not conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b). The project is not a capacity increasing project and would not increase the "vehicle miles traveled." Therefore, there would be no impacts.

c) No Impact: The proposed alternatives would not substantially increase hazards due to geometric design features or incompatible uses. As such, the proposed project would have no impacts.

d) No Impact:. Construction activities have the potential to result in temporary, localized, site-specific disruptions during the construction period. The project does not intend to result in any lane closures as the scope is to regrade the median of the I-15. There would be no impacts.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required for transportation/traffic.

2.18. 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:

Question	CEQA Determination
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	No Impact
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.	No Impact

CEQA Significance Determinations for Tribal Cultural Resources

a) No Impact: Caltrans, in accordance with Section 106 PA Stipulation VIII.C.5 and as applicable PRC 5024 MOU Stipulation VIII.C.5 has determined there are bridges listed as Category 5 within the Area of Potential Effects (APE) that were previously determined not eligible for inclusion in the National Register of Historic Places (NRHP) and/or not eligible for registration as a California Historic Landmark (CHL) with State Historic Preservation Officer (SHPO) concurrence and those determinations remain valid.

Site 36-004198 is an archaeological site within the APE but outside of the Area of Direct Impact (ADI). The site is considered eligible for inclusion in the NRHP and/or as CHLs for the purposes of this project only because they will be protected in their entirety from any potential effects through the establishment of an Environmentally Sensitive Area (ESA), in accordance with Section 106 PA Stipulation VIII.C.3 and as applicable PRC 5024 MOU Stipulation VIII.C.3.

b) **No Impact:** There are no significant resources for a California Native American tribe identified near or within the project study area.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of measures **CR-1**, and **CR-2**, as described in the Cultural Resources Section above will reduce any potentially significant impacts from the proposed project to tribal cultural resources that may be inadvertently discovered during construction.

2.19. Utilities and Service System

Would the project:

Question	CEQA Determination
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?	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
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?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

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. There would be no impacts.

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

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. There would be no impacts.

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
No avoidance, minimization, or mitigation measures are required for utilities and service systems.

2.20. Wildfire

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

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
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?	No Impact
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?	No Impact
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?	No Impact

Regulatory Setting

Senate Bill 1241 required the Office of Planning and Research, the Natural Resources Agency, and the California Department of Forestry and Fire Protection to develop amendments to the "CEQA Checklist" for the inclusion of questions related to fire hazard impacts for projects located on lands classified as very high fire hazard severity zones. The 2018 updates to the CEQA Guidelines expanded this to include projects "near" these very high fire hazard severity zones.

CEQA Significance Determinations for Wildfire

According to the map by CalFire's Fire and Resource Assessment Program (FRAP) (https://egis.fire.ca.gov/FHSZ/), the proposed project is located in both a Federally Responsibility Area and a Local Responsibility Area. The project location is not in a fire-hazard zone.

a) No Impact: The proposed project will not substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, there are no impacts.

b) No Impact: The proposed project will 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. The project scope is to regrade the median. Therefore, no impacts are expected.

d) No Impact: The project will not expose people or structures to significant risks, including downslope or downstream flooding or landslides. As mentioned under Section VII, Geology and Soils, the project locations are not within a landslide area and the probability is low.

Avoidance, Minimization, and/or Mitigation Measures
No avoidance, minimization, or mitigation measures are required for wildfires.

2.21. Mandatory Findings of Significance

Question	CEQA Determination
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Less Than Significant with Mitigation Incorporated
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)?	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No Impact

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 measure **BIO-1** to **BIO- 40** 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 would have no impacts.

c) No Impact: The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. Therefore, the proposed project would have 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.

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 based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

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

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

State

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

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

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

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

Senate Bill 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 ($MMTCO_2e$).[2] Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

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

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

[2] 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.

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.

EO N-79-20 (September 2020) establishes goals for 100 percent of in-state sales of new passenger cars and trucks to be zero-emissions vehicles by 2035, that the state transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible, and that 100 percent of medium- and heavy-duty vehicles in the state be zero-emissions by 2045 where feasible.

Environmental Setting

The proposed project is located on Interstate 15 (I-15) in San Bernardino County. The existing facility is a north-south, State and Interstate highway that begins in the city of San Diego, California and terminates at the U.S border with Canada. In Caltrans District 8, the I-15 begins in the city of Temecula and ends at the Nevada border. The project limits begin near the City of Barstow which is located in desert terrain and is a rural area. The route facilitates recreation trips to the high desert, Las Vegas, and beyond. I-15 also serves commuter traffic from the High Desert to the Los Angeles Basin and as a freight corridor throughout the country. The Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) guides transportation development in San Bernardino County.

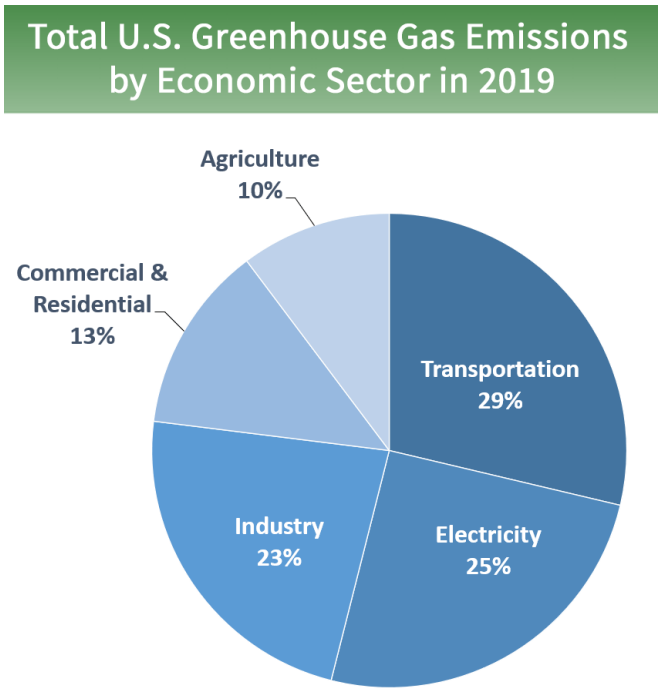
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG

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

National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990 2019 inventory found that overall GHG emissions were 6,558 million metric tons (MMT) in 2019, down 1.7 percent from 2018 but up 1.8% from 1990 levels. Of these, 80 percent were CO2, 10 percent were CH4, and 7 percent were N2O; the balance consisted of fluorinated gases. CO2 emissions in 2019 were 2.2 percent less than in 2018, but 2.8 percent more than in 1990. As shown on Figure #-#, the transportation sector accounted for 29 percent of U.S. GHG emissions in 2019 (U.S. EPA 2021a, 2021b).

Figure 4-1 U.S. 2019 Greenhouse Gas Emissions (Source: U.S. EPA 2021c)



U.S. Environmental Protection Agency (2021). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019

State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2020 edition of the GHG emissions inventory reported emissions trends from 2000 to 2018. It found total California emissions were 425.3 MMTCO2e in 2018, 0.8 MMTCO2e higher than 2017 but 6 MMTCO2e lower than the statewide 2020 limit of 431 MMT CO2e. The transportation sector was responsible for 41 percent of total GHGs. Transportation emissions decreased in 2018 compared to the previous year, which is the first year over year decrease since 2013. Overall statewide GHG emissions declined from 2000 to 2018 despite growth in population and state economic output (ARB 2020a).

Figure 4-2. California 2018 Greenhouse Gas Emissions by Economic Sector (Source: ARB 2020b)

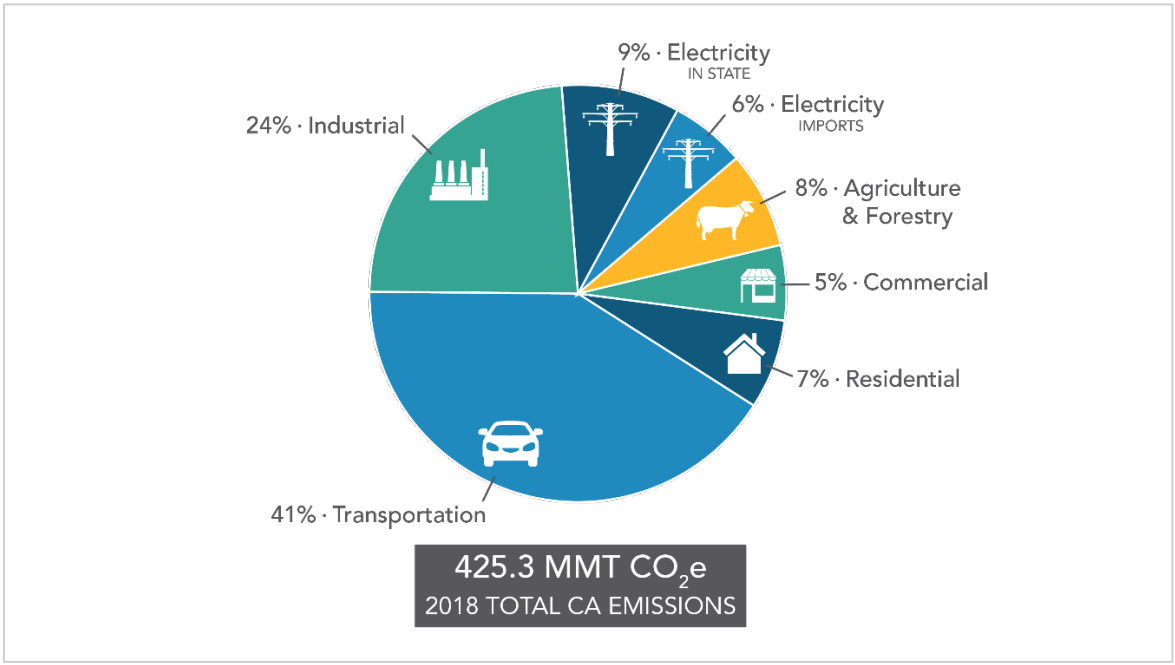
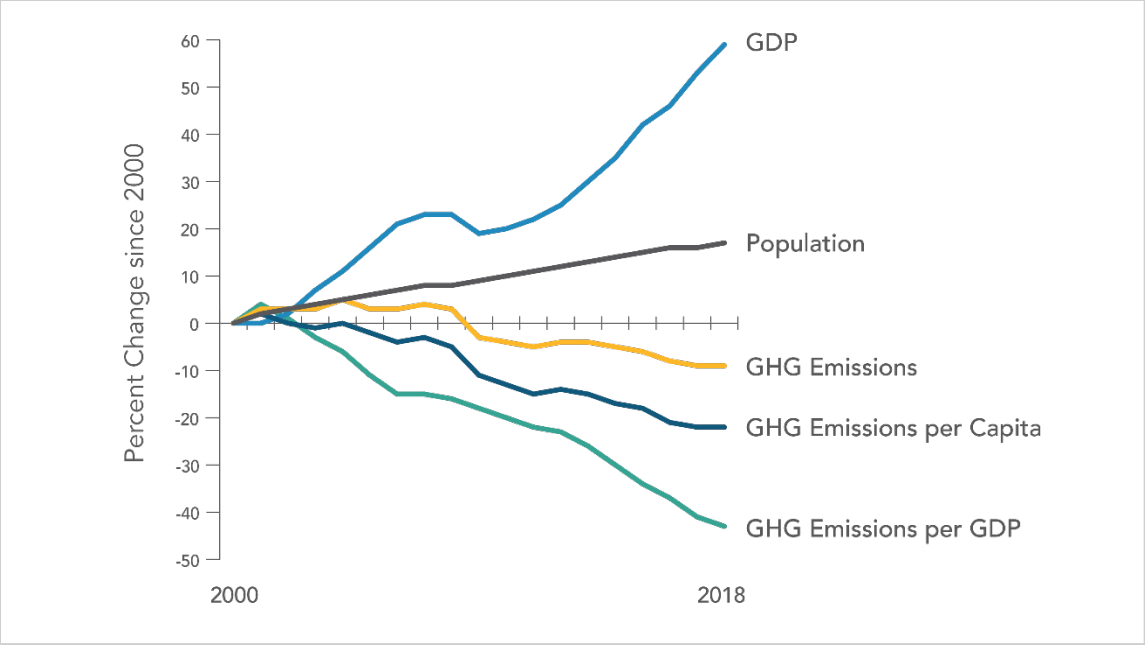


Figure 4-3. Change in California GDP, Population, and GHG Emissions since 2000



(Source: ARB 2020b)

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 RTP/SCSs to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The regional reduction target for SCAG is 19 percent by 2035 (ARB 2021). The 2016 SCAG RTP/SCS reflects the region's commitment to improve the region's mobility, sustainability, and economy. However, the proposed project to regrade the median of I-15 is not covered in the SCAG RTP/SCS. The 2016 RTP includes long-term emission reduction strategies for rail and trucks; expanding the region's high-speed and commuter rail systems; expanding active transportation; leveraging technological advances for transportation; addressing further regional reductions in GHG; and making the region more resilient to climate change.

The proposed project is also within the jurisdiction of the San Bernardino County Transportation Authority (SBCTA) and the San Bernardino Council of Governments (SBCOG). SBCTA participates in developing the SCAG RTP/SCS. It also published a non-

motorized transportation plan, the Inland Empire Comprehensive Multimodal Corridor Plan, rail and transit studies, and varied other sustainability studies and planning documents to guide the region's response to statewide initiatives to reduce vehicle travel and GHG emissions (SBCTA 2021).

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 involves regrading the median cross slopes from the existing 6:1 or steeper to 10:1 or flatter. The project would maintain the existing lane configuration. Because the project would not increase the number of travel lanes on I-15, no increase in vehicle miles traveled (VMT) would occur as result of project implementation, and traffic volumes are anticipated to be the same under the Project Alternative and No-Build Alternative. Although GHG emissions during the construction period (as discussed below) would be unavoidable, no increase in operational GHG emissions are 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 Sacramento Metropolitan Air Quality Management District Road Construction Emissions Model, version 9.0.0. 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 1,055 tons of CO_2-equivalent (CO_2e)[3] over the approximate 250-day construction period.

The project would comply with all requirements of the Mojave Desert 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.

All construction contracts also include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

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 greenhouse gases. With implementation of construction GHG-reduction measures, the impact would be less than significant.

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

GREENHOUSE GAS REDUCTION STRATEGIES

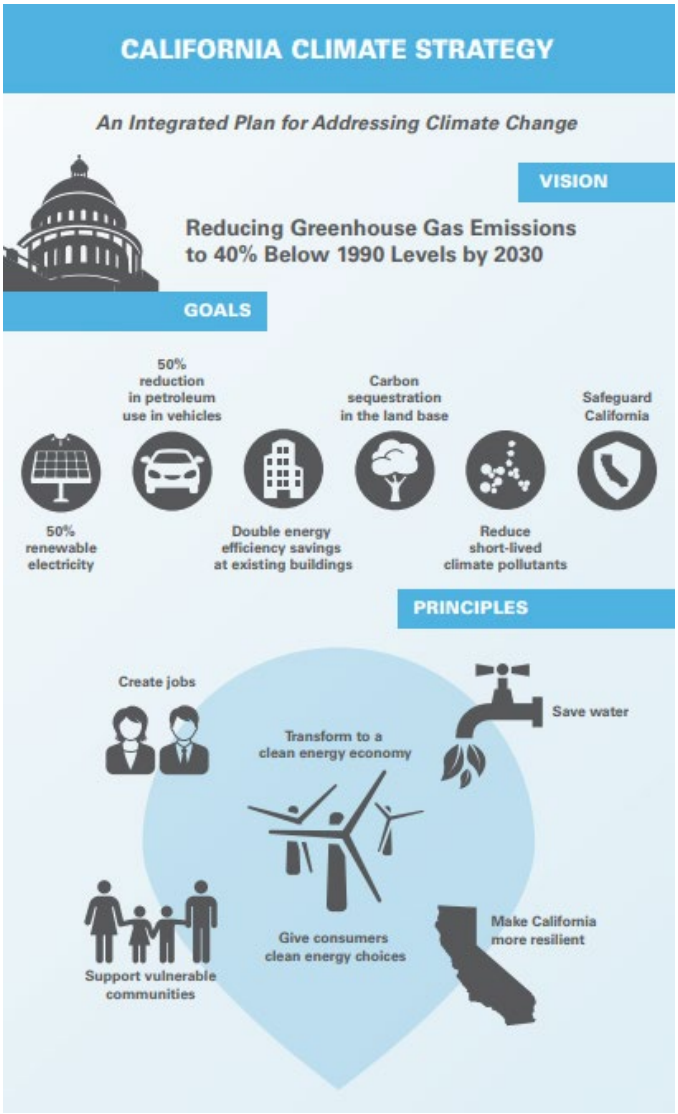
Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals 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

[3] 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 and converted to total metric tons of CO_2-equivalent over a given time period. The Road Construction Emissions Model calculates only CO_2, methane, and nitrous oxide.

existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

Figure 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 40 percent by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter. Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged and vulnerable communities. Each agency is to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the State's carbon neutrality goal and build climate resilience.

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

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

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 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, the CTP identifies additional strategies.

Caltrans Strategic Plan

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

vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

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) established a Department policy to 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.

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

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.

Mojave Desert Air Quality Management District regulations would apply in the project area. Requirements that reduce vehicle emissions and energy use may help reduce GHG emissions.

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

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

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

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 B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other

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

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

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans conducted 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.

Floodplains
In the Flood Insurance Rate Map (FIRM), provided by Federal Emergency Management Agency (FEMA), the project location is shown to be in FIRM Panel 06071C3975H, 06071C3425H, and 06071C3450H. The FIRM panel identifies the area to be in the San Bernardino County Unincorporated Areas Zone D. FEMA classifies Zone D as an area where there are possible but undetermined flood hazards.

Accordingly, no analysis of flood hazards has been conducted. The Caltrans Climate Change Vulnerability Assessment mapping tool (http://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=178a3b8cedf54cbdbe3f90ccb43fc4be) indicates 100-year storm precipitation depth in the project area is expected to increase by approximately 1.5 percent by 2085. Culverts would be extended, rock slope protection installed at culverts and washes, and the storm drain system in the median would be extended. Considering these measures and the relatively small increase in precipitation intensity, the project is likely to withstand changes in precipitation that are anticipated with climate change.

Wildfire
According to the map by CalFire's Fire and Resource Assessment Program (https://egis.fire.ca.gov/FHSZ/), the project location is not in a high fire-hazard severity zone. The proposed project segments of the I-15 included in the project limits is in a both a Federal Responsibility Area and Local Responsibility Area. Wildfires are not a risk in the project area and modeling conducted for the District 8 Draft Climate Vulnerability Assessment (Caltrans 2019b) does not show I-15 in the project area as roadway exposed to wildfire through 2085. In addition, Caltrans 2018 revised Standard Specification 7-1.02M(2) mandates fire prevention procedures during construction, including a fire prevention plan.

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 meetings, public notices, Project Development Team (PDT) meetings. This chapter summarizes the results of the Department's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

Consultation with several agencies occurred in conjunction with preparation of the proposed project technical reports and this IS. These agencies are identified in the various technical reports and include the United States Fish and Wildlife Service, California Department of Fish and Wildlife Service, United States Army Corp of Engineers, and Regional Water Quality Control Board.

4.1 Consultation and Coordination with Public Agencies and Tribal Governments

The following provides a summary of all meetings, correspondence, and/or coordination relevant for the development of the proposed project.

4.1.1 AB 52 Consultation

AB 52 consultation was initiated on June 9, 2021. Caltrans contacted San Manuel Band of Mission Indians. The Tribe responded on June 23, 2021 and requested for measures to be included on the project. The measures are covered by Caltrans Standard Specifications and CR-1 and CR-2.

Caltrans also contacted the Serrano Nation and Twenty-Nine Palms Band of Mission Indians. Caltrans did not receive a response.

Chapter 5 List of Preparers

Malisa Lieng, Associate Environmental Planner, Generalist

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Sarah Gallimore, Associate Environmental Planner, Biological Regulatory Permits

Steven Holm, Associate Environmental Planner, Archaeologist

Phong Hoang, Transportation Engineer, Hazardous Waste Specialist

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Bahram Karimi, Associate Environmental Planner, Paleontology Coordinator

Kurt Heidelberg, Supervising Environmental Planner

Adam Compton, Senior of Biological Regulatory Permits

Nancy Frost, Senior Environmental Planner

Shawn Oriaz, Senior Environmental Planner

Paul Phan, Senior Transportation Engineer

Andrew Walters, Senior of Environmental Cultural Studies

Chapter 6 Distribution List

California Department of Fish and Wildlife
Inland Region
ATTN: Wendy Campbell
3602 Inland Empire Blvd, Suite C-220
Ontario, CA 91764

Lahontan Regional Water Quality Control Board
Victorville Branch Office
15095 Amargosa Rd., Bldg 2 – Ste. 210
Victorville, CA 92394

San Bernardino County Planning Dept.
385 N. Arrowhead Ave., First Floor
San Bernardino, CA 92415

Planning & Environmental Coordinator
BLM Barstow Field Office
2601 Barstow Road
Barstow, CA 92311

Mojave Desert Air Quality Management District
14306 Park Ave.
Victorville, CA 92392

California State Assembly, District 33
9700 7th Ave., Suite 227
Hesperia, CA 92345

California Highway Patrol
Attn: Administrator
300 E. Mountain View St.
Barstow, CA 92311-2887

San Bernardino County Flood Control
825 E. Third St.
San Bernardino, CA 92415-0835

Dr. James Hart
City Manager, City of Barstow
220 East Mountain View St., Suite A
Barstow, CA 92311

BLM
California Desert District Office
1201 Bird Center Drive
Palm Springs, CA 92262

U.S. Fish and Wildlife Service
Region 8
2800 Cottage Way
Sacramento, CA 95825

Appendix A Title VI Policy Statement

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

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
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Making Conservation a California Way of Life.

August 2020

NON-DISCRIMINATION POLICY STATEMENT

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

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a nondiscriminatory manner.

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

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

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

Original signed by
Toks Omishakin
Director

Appendix B 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
1602	California Department of Fish & Wildlife			
WDR	Regional Water Quality Control Board			

Date of ECR: September 30, 2021
Date: CEQA IS - September 30, 2021
NEPA CE: December 29, 2017

Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 65%
☐ RTL
☐ Construction

ENVIRONMENTAL COMMITMENTS RECORD
(Interstate 15 Regrade Center Median Project)

08-SBD-15
PM R96.1-R103.5,
R111.6-R112.3,
R120.1 to R124.24

EA 08-1C7201
PN 0813000003
Generalist: Malisa Lieng
ECL:

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 in that area until a qualified archaeologist can evaluate the nature and significance of the find.	N/A	Historic Property Survey Report Dec. 13, 2017	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Design/ Construction	Standard Spec 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 the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 260-5178 or Gary Jones, DNAC: (909) 261-8157. Further provisions of PRC 5097.98 are to be followed as applicable.	N/A	Historic Property Survey Report Dec. 13, 2017	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Design/ Construction	Standard Spec 14-2.03A					
BIOLOGICAL RESOURCES										
BIO-1 **Equipment Staging**: Equipment, vehicles, and materials staged and stored in Caltrans right-of-way will be sited in the median areas within project limits only.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-2 **Standard Best Management Practices (BMPs)**: BMPs that are required and implemented for all Caltrans' projects are expected to avoid impacts to special-status natural resources (i.e., hydrology, vegetation communities, water quality, etc.) located off-site in the adjacent ACECs and DWMA.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident	PS&E / Construction						

			Engineer / Contractor							
BIO-3 **Species Protection**: Contractor will submit the names and qualifications of biologists who they believe meet the minimum requirements to serve as Authorized Biologists to the United States Fish and Wildlife Service (USFWS) prior to beginning on-site activities. Once a biologist has been authorized by the USFWS, that individual may work on subsequent projects pursuant to this biological opinion without additional approval, provided that his or her performance remains satisfactory. Caltrans will maintain a record of all Authorized Biologists who work on its projects.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-4 **Biological Monitor**: Caltrans will designate, on a project-by-project basis, an authorized biologist to be responsible for overseeing compliance with all protective measures and for coordination with the Service. The authorized biologist will immediately notify the resident engineer of project activities that may be in violation of the biological opinion. In such an event, the resident engineer can halt all construction activities until all protective measures are being fully implemented, as determined by the authorized biologist.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-5 **Species Protection** - A resident engineer is, according to Caltrans' May 2006 Standard Specifications, "the Chief Engineer, Department of Transportation, acting either directly or through properly authorized	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring /	PS&E / Construction						

agents, the agents acting within the scope of the particular duties delegated to them." The resident engineer has authority over the contract and is responsible for all aspects of the specific projects to which he or she is assigned. The resident engineer has the authority to stop work on a project. The authorized 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 tortoise.			Design / Resident Engineer / Contractor							
BIO-6 **Species Protection** - When handling DT, the authorized biologist (and trained individuals) must follow the guidelines outlined in the Desert Tortoise Field Manual (Service 2010), chapters 6 and 7. The manual is available on the web through the VFWO website (www.fws.gov/ventura).	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-7 **Species Protection** - 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 DT will be conducted by the authorized biologist, as appropriate. The entire project area will be surveyed for DT and their burrows by the authorized biologist or approved desert tortoise monitor before the start of any ground-disturbing activities following the 2010 field survey protocol (Service 2010) or	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

more current approved protocol. If burrows are found, they will be examined by the authorized biologist to determine if DT are present. If a tortoise is present and the burrow cannot be avoided, it will be relocated in accordance with Service protocol (Service 2010). If the authorized biologist determines clearance surveys are not needed, clearance surveys would not be required. If DT are found at a project site where Caltrans (or the authorized biologist) had previously concluded they were unlikely to occur, Caltrans will contact the USFWS to determine if the implementation of additional protective measures would be appropriate.										
BIO-8 **Species Protection** – For construction projects determined likely to may affect desert tortoise, an education program will be developed and presented by the authorized biologist prior to the onset of ground-disturbing activities to be conducted under the auspices of this consultation. All onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel employed for a project will be required to participate in an education program regarding the DT before performing on-site work. The program will consist of a class presented by the authorized biologist or a video, provided the authorized biologist is present to answer questions. Wallet-sized	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

cards or a one-page handout with important information for workers to carry are recommended as a future reference and a reminder of the program's content. The program will cover the following topics at a minimum: - the distribution, general behavior, and ecology of the DT; - its sensitivity to human activities; - the protection it is afforded by the Endangered Species Act; - penalties for violations of State and Federal laws; - notification procedures by workers or contractors if a tortoise is found in a construction area, and; - protective measures specific to each project.										
BIO-9 **Species Protection** - Whenever project vehicles are parked outside of a fence that is intended to preclude entry by desert tortoises, workers will check under the vehicle before moving it. If a DT is beneath the vehicle, the worker will notify the authorized biologist or approved desert tortoise monitor to relocate the tortoise. If the authorized biologist is not present on-site, the RE or supervisor must notify an authorized biologist. Workers will not be allowed to capture, handle, or relocate tortoises. Any such handling must be reported as described in the Reporting Requirements section of this biological opinion.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-10 **Species Protection** - The area of disturbance will be confined to the smallest practical area, considering topography, placement of facilities, location of burrows, public health and safety, and other limiting	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring /	PS&E / Construction						

factors. This measure includes temporary haul roads, staging/storage areas, or access roads. Work area boundaries will be clearly and distinctly delineated with flagging or other marking to minimize surface disturbance associated with vehicle movement. Special habitat features, such as DT burrows, will be identified and marked as environmentally sensitive areas by the authorized biologist, if they are to be avoided and will be discussed and identified during the worker education program. To the extent possible, previously disturbed areas within the Caltrans ROW will be used for equipment storage, office trailer locations, and vehicle parking. The development of all temporary access and work roads associated with construction will be minimized and constructed without blading where feasible. Project-related vehicle traffic will be restricted to established roads, construction areas, staging/storage areas, and parking areas. The RE and authorized biologist will ensure that blading is conducted only where necessary.			Design / Resident Engineer / Contractor							
BIO-11 **Species Protection** - Caltrans will require all contractors to comply with the Federal Endangered Species Act in the performance of work necessary for project completion. Evidence of compliance is required prior to Caltrans accepting or receiving materials or goods produced from outside of the ROW or through the use of facilities located outside of the ROW, including but not limited	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

to, non-commercial batch plants, haul roads, quarries, and similar operations. Copies of the compliance documents will be maintained at the work-site by the RE.										
BIO-12 **Species Protection** - The RE is responsible for ensuring that all protective measures are being fully implemented. If the RE determines, or is notified by the authorized biologist, that one or more protective measures are not being fully implemented, he or she will halt all activities that are out of compliance until all problems have been remedied. All workers, authorized biologists, and biological monitors will be required to notify the RE of any such problem they notice. The RE must always be able to contact an approved biological monitor or authorized biologist to resolve any unforeseen issues.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-13 **Species Protection** -Caltrans will determine whether the presence of authorized biologists and approved desert tortoise monitors will be required during project activities as outlined in the "criteria for use in reaching appropriate determination" section of the programmatic biological opinion and the submitted Appendix I notification form to the Service. In general, where the risk to desert tortoises is low, the authorized biologist or approved biological monitor will be present at the onset of the project to ensure protective measures are in place and will, if necessary (for example,	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

for projects that will require a substantial length of time to complete), conduct periodic field checks to ensure compliance.										
BIO-14 **Species Protection** - Permanent or temporary exclusion fencing may be used to prevent entry by desert tortoises into a work site, if Caltrans and the authorized biologist determine this measure is appropriate. Exclusion fencing will be installed following Service guidelines (2005) or more current protocol. The authorized biologist will ensure that desert tortoises cannot pass under, over, or around the fence. If such a fence is used, authorized biologists or desert tortoise monitors will not be required to be present at the site at all times. However, the authorized biologist must periodically check the fenced area to search for breaks in the fence and to ensure no desert tortoises have breached the fence. Preconstruction surveys for tortoise and tortoise sign will be performed within all proposed construction areas prior to the fence being installed. In addition, prior to ground disturbing activities beginning in a previously undisturbed or unfenced area, preconstruction surveys will be performed.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-15 **Species Protection** - Upon locating a dead or injured tortoise within a project site, the RE will immediately notify the authorized biologist whom then will notify the USFWS within 24 hours of the observation via telephone. Written notification must	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design /	PS&E / Construction						

be made to the appropriate Fish and Wildlife field office within 5 days of the finding. The information provided must include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death or injury, if known, and other pertinent information (i.e., size, sex, recommendations to avoid future injury or mortality).			Resident Engineer / Contractor							
BIO-16 **Species Protection** - Injured DT will be transported to a veterinarian for treatment at the expense of the contractor or Caltrans. Only the authorized biologist or an approved desert tortoise biological monitor will be allowed to handle an injured tortoise. If an injured animal recovers, the appropriate USFWS field office will be contacted for final disposition of the animal.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-17 **Species Protection** - Caltrans will notify the authorized biologist or approved desert tortoise monitor to collect and place the remains of intact DT carcasses with educational or research institutions holding the appropriate State and Federal permits per their instructions. If such institutions are not available or the animal's remains are in poor condition, the information noted in this section will be obtained and the carcass left in place. If left in place and sufficient pieces are available, the authorized biologist will attempt to mark the carcass to ensure that it is not reported again.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

BIO-18 **Species Protection** - If working outside of a DT proof area, auger holes or other excavations will be covered following inspection at the end of each workday to prevent DT from becoming trapped.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-19 **Species Protection -**When feasible or practicable, construction vehicles will be cleaned of all mud, dirt, and debris from other sites prior to entering the project area. The purpose of this measure is to minimize the spread of weedy plant species that may degrade desert tortoise habitat.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-20 **Species Protection** -When feasible or practicable, construction vehicles will be cleaned of all mud, dirt, and debris from other sites prior to entering the project area. The purpose of this measure is to minimize the spread of weedy plant species that may degrade desert tortoise habitat.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-21 **Species Protection** - Any fuel or other hazardous materials spills will be promptly cleaned up; any leaks from equipment will be stopped and repaired immediately. Vehicle and equipment fluids that are no longer useful will be transported to an appropriate off-site disposal location. Fuel and lubricant storage and dispensing locations will be constructed to fully contain spilled materials until disposal can occur.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

Hazardous waste, including used motor oil waste and coolant, will be stored and transferred in a manner consistent with applicable regulations and guidelines.										
BIO-22 **Species Protection** -Plant species listed in Lists A and B of the California Exotic Pest Plant Council's list of exotic pest plants (latest edition) will not be used to restore or stabilize areas within or near desert tortoise habitat.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-23 **Species Protection** – Upon completion of construction, all refuse, including, but not limited to equipment parts, wrapping material, cable, wire, strapping, twine, buckets, metal or plastic containers, and boxes will be removed from the site and disposed of properly.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-24 **Species Protection** - No firearms or pets, including dogs, will be allowed within the work area. Firearms carried by authorized security and law enforcement personnel and working dogs under the control of a handler will be exempt from this protective measure.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-25 **Species Protection** - To preclude attracting predators, such as the common raven (*Corvus corax*) and coyotes (*Canis latrans*), food-related trash items will be removed	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship	PS&E / Construction						

daily from the work site and disposed of at an approved refuse disposal site. Workers are prohibited from feeding all wildlife.			and Monitoring / Design / Resident Engineer / Contractor							
BIO-26 **Species Protection** - During all off-road cross-country travel outside of any area surrounded by desert tortoise-proof fencing, the authorized biologist will select and flag the access route to avoid burrows, to minimize disturbance of vegetation, and to relocate any desert tortoises that are found in the access route, out of harm's way. The authorized biologist will walk in front of the lead vehicle to ensure that no desert tortoise or burrows are present. All vehicles will follow the lead vehicle's tracks and stay within the designated access route.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-27 **Desert Tortoise Fencing -** Desert tortoise exclusion fence construction will follow the guidelines in chapter 8 of the Desert Tortoise Field Manual (Service 2010) which is available at the VFWO website (www.fws.gov/ventura).	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-28 **Desert Tortoise Fencing -**When gates are installed within the fence: line, desert tortoise-proof fencing will be installed along the gate bottom beginning at least 2 feet above the fence bottom and extending and extending towards the ground leaving less than a 1-inch gap (Service 2010).	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident	PS&E / Construction						

			Engineer / Contractor							
BIO-29 **Desert Tortoise Fencing** -All desert tortoise fences, gates, and cattle guards will be regularly maintained at a frequency sufficient to ensure that they will continually provide an effective barrier to passage of desert tortoises.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-30 **Desert Tortoise Fencing** - Desert tortoise-proof fencing will not cross washes. When washes and culverts are encountered, the desert tortoise-proof fence will follow the wash to the roadway and either tie into the existing bridge or cross over the top of a culvert.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-31 **Species Protection** -During fence inspections and repair, if any desert tortoises are observed, workers are to notify the authorized biologist because only authorized biologists and approved biological monitors are permitted to handle tortoise. All desert tortoises encountered within the roadway side of the fence will be relocated across the fence to safety in accordance with Service protocol (Service 2010). Any such incident will be reported in the annual report.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

BIO-32 **Species Protection** -On a case by case basis, individual active burrows may be fenced if the authorized biologist determines this protective measure is necessary to prohibit DT from repeatedly entering work areas. Fencing around individual burrows will be removed when adjacent construction is complete.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-33 **Species Protection** -To further ensure that actions implemented under the auspices of this consultation do not substantially degrade the status of the desert tortoise or its critical habitat, Caltrans will reinitiate formal consultation in the event either of the following thresholds regarding injury or mortality to desert tortoises or loss or disturbance of their critical habitat is reached: a. Two (2) desert tortoises injured or killed in any calendar year, within the action area, in each county considered in this biological opinion; or seven (7) desert tortoises injured or killed, within the action area (regardless of county) considered in this biological opinion, in any calendar year; and Five (5) acres located outside of the ultimate rights-of-way containing the primary constituent elements of critical habitat of the desert tortoise are adversely affected on a long-term basis within each of the critical habitat units considered in this biological opinion, in any calendar year.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

BIO-34 **Data Submission** -Each Caltrans district in the action area will record with a global positioning system (GPS) all new fence locations, culverts, and under crossings available to the desert tortoise within the range of roads covered by this programmatic biological opinion. All recorded data will be input into a geographical information system (GIS) database and submitted on an annual basis to the Service to assist with future planning for fencing high priority roadways to reduce vehicle strikes to desert tortoises. The database will be updated as projects install new drainage structures, permanent desert tortoise-proof fencing, and other structures such as cattle-guards and desert tortoise-proof fencing.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-35 **Desert Tortoise Monitoring Reports**: The contractor-supplied biologist will conduct daily on-site monitoring and submit a weekly monitoring report for desert tortoise during construction. The monitoring reports will include photos of desert tortoise temporary fencing installation and upkeep, and a copy will be provided to USFWS and Caltrans.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-36 **Preconstruction Nesting Bird Survey:** If Project activities cannot be avoided during the nesting period from February 15 through September 1, a qualified biologist will survey the entirety of the project area prior to commencing Project related activities. The surveys will be conducted by the biologist at the appropriate time(s) of day, no more	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

than three days prior to commencement of Project activities. If an active avian nest is located, a 100 foot no construction buffer (300 foot for raptors) will be put in place until nesting has ceased or the young have fledged. The biologist will monitor the nest to ensure that impacts to nesting birds do not occur.										
BIO-37 **Vegetation Removal**: To avoid impacts to migratory birds, vegetation removal must take place outside of the breeding season, in which the breeding season is regarded as February 15 – September 1.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-38 **Species Protection** - Burrowing owl pre-construction surveys are to be conducted by the authorized biologist before work crew work within an area.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
BIO-39 **Species Protection** - The authorized biologist will monitor the project as needed and/or required. If project activity has the potential to damage a burrow/nest of the Burrowing Owl, work must be halted until the authorized biologist clears the work. If an Owl is injured or killed, the Caltrans Environmental Stewardship Monitoring Branch must be notified.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						

BIO-40 **Species Protection** – The authorized 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 bighorn sheep and to direct movements of equipment and personnel to avoid injury or mortality to this species. Presence/Absence Roosting Bat Survey: Presence/Absence roosting bat surveys will be conducted by a qualified biologist at Bridge #54-0364 Afton Road at PM 111.59 and any suitable culvert locations prior to commencing Project related activities. The surveys will be conducted by the qualified biologist at the appropriate time(s) of day, no more than three days prior to commencement of Project activities. If a maternity roost is present, then the Project should be scheduled outside of the maternity season (March through July) in an effort to prevent indirect impacts on nearby maternity roosts. If a non-maternity roost is present, then artificial lighting for the Project site, if applicable, is to be directed specifically at the work site only and be set up one hour prior to sunset. A qualified biologist should also be present on-site to monitor construction.	N/A	Natural Environment Study (Minimal Impacts) August 2, 2017	District 8 Biological Studies & Permits / Environmental Stewardship and Monitoring / Design / Resident Engineer / Contractor	PS&E / Construction						
HAZARDOUS WASTE										
HAZ - 1: A task order is being conducted for Aerially Deposited Lead to determine if special handling and/or removal is needed..	N/A	ISA Checklist August 30, 2021	Resident Engineer/ Contractor	PS&E / Construction						

Appendix C Federal Transportation Improvement Program

SBDLS01 Exempt Grouped Projects for Safety Improvements - SHOPP Collision Reduction Program - 2019 FTIP Amendment #19-24								
Agency	County	District EA	Notes	Project Description	Program Year (FFY)	Federal Funds	State Funds	Total Project Cost (in $1000's)
Caltrans	SBd	1C720	2020 SHOPP Carryover from 2018 SHOPP, approved by CTC May 13-14, 2020.	On I-15. Near Barstow, from 0.3 mile south of Harvard Road to Rasor Road. Regrade and flatten median cross slope. RW Cap and CON Cap/Sup Only.	2021/22	$18,228	$0	$18,228

Appendix D List of Technical Studies

- Historic Property Survey Report December 13, 2017

- Storm Water Data Report December 18, 2017

- Initial Site Assessment Checklist August 30, 2021

- Natural Environment Study (Minimal Impacts) August 2, 2017

- Scoping Questionnaire for Water Quality Issues December 2017

- Visual Analysis Checklist August 3, 2021

Appendix E References

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U.S. Global Change Research Program (USGCRP). 2018. *Fourth National Climate Assessment*. https://nca2018.globalchange.gov/. Accessed: August 21, 2019.