SBD-18 Lucerne Valley Pavement Rehab

SAN BERNARDINO COUNTY, CALIFORNIA
DISTRICT 8 – SBD – 18 (PM 66.9/75.6)
EA 08-1L140 / PN 0819000159

Initial Study [with Proposed] Mitigated Negative Declaration

Prepared by the
State of California, Department of Transportation

January 2024

General Information about This Document

What's in this document:
The California Department of Transportation (Caltrans) has prepared this Initial Study (IS), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in San Bernardino County, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- We welcome your comments. If you have any concerns about the project, please send your written comments to Caltrans by the deadline. Submit comment via U.S. mail or email to Caltrans at the following address:
  Malisa Lieng, Senior Environmental Planner
  California Department of Transportation
  464 W. 4th Street, MS 823
  San Bernardino, CA 92401-1400
  Email: SBD18LucerneValleyPavementRehab@dot.ca.gov

- Submit comments by the deadline: March 13, 2024

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

Alternative Formats:
For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Malisa Lieng, Senior Environmental Planner, 464 W. 4th Street (MS 823), San Bernardino, CA 92401; (909) 261-3955 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

SCH#
08-SBD-18-PM 66.9/75.6
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Rehabilitate State Route 18 by Partial Depth Reclamation, construct 8-foot shoulders, upgrade guardrails and Transportation System Elements, install vegetation control, extend culverts, construct median and shoulder rumble strips, in San Bernardino County, from Camp Rock Road to Custer Ave (Postmile 66.9 to Postmile 75.6).

INITIAL STUDY (Proposed) Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation

1/26/2024
Date

Kurt Heidelberg
Deputy District Director
District 8, Division of Environmental Planning
California Department of Transportation

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

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SCH:

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to preserve and extend the service life of the existing pavement, as well as other roadway deficiencies along State Route (SR) 18 in San Bernardino County. The work includes minor pavement rehabilitation, construction of 8 foot shoulders, replacement of sign panels, guardrail upgrade, installation of vegetation control, Transportation Management System (TMS) elements upgrade, extension of culverts within the project limits, construction of median and shoulder rumble strips, installation of anchor blocks for guardrail, construction of pavement edge treatment, and refreshment of recessed pavement markers.

Determination

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

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 Forest Resources, Cultural Resources, Energy, Geology and Soils, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Wildfire.

In addition, the proposed project would have less than significant effects to Air Quality, Biological Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Utilities and Service Systems.

Compensatory Mitigation

Mitigation for permanent impacts is potentially anticipated, with Resource Agency approval, through permittee-responsible mitigation, suitable mitigation/conservation bank credits, suitable in-lieu fee program credits and/or other mitigation acceptable to the resource agencies involved.

_____ _____

Kurt Heidelberg
Deputy District Director
District 8
California Department of Transportation

Date

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Chapter 1 – Proposed Project

Introduction

The Department of Transportation (Caltrans) proposes to preserve and extend the service life of the existing pavement, as well as other roadway deficiencies on a two-lane to four-lane undivided highway. The proposed project is on State Route (SR) 18, located in San Bernardino County, in the town of Lucerne Valley from Camp Rock Road to Custer Avenue at Postmile (PM) 66.9 to 75.6. The work includes pavement rehabilitation using Partial Depth Recycling (PDR), construction of 8-foot shoulders, replacement of sign panels, guardrail upgrade, installation of vegetation control, Transportation Management System (TMS) elements upgrade, extension of culverts within the project limits, construction of median and shoulder rumble strips, installation of anchor blocks for guardrail, construction of pavement edge treatment, and refreshment of recessed pavement markers.

This project is included in the 2023 Federal Transportation Improvement Program (FTIP) and is proposed for funding from the State Highway Operation and Protection Program (SHOPP) Roadway Preservation Program under 201.121 (HA22) for delivery in the 2026 Fiscal Year.

Purpose and Need

Purpose

The purpose of the proposed project is to preserve and extend the service life of the existing pavement and improve ride quality. The project will also construct 8-foot shoulders, restore existing TMS elements, upgrade sign panels with higher reflectivity, upgrade guardrails, and extend culverts.

Need

The need for the proposed project is to improve a variety of roadway deficiencies along SR-18. The pavement within the project limits is exhibiting minor distress and is in need of repair. Some TMS elements, sign panels, and guardrails within the project limits are either in poor condition or not in compliance with current standards. This project is needed to address these current deficiencies.

Alternatives

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

No-Build Alternative

Under the No-Build Alternative, the existing facility would remain as it exists now. No improvement to the pavement would occur and the roadway deficiencies would remain. This alternative would not satisfy the purpose and need.

Proposed Build Alternative

This alternative proposes to rehabilitate the pavement and improve the ride quality of SR-18 from Camp Rock Road (PM 66.9) to Custer Ave (PM 75.6). Under this alternative, the following improvements are included:

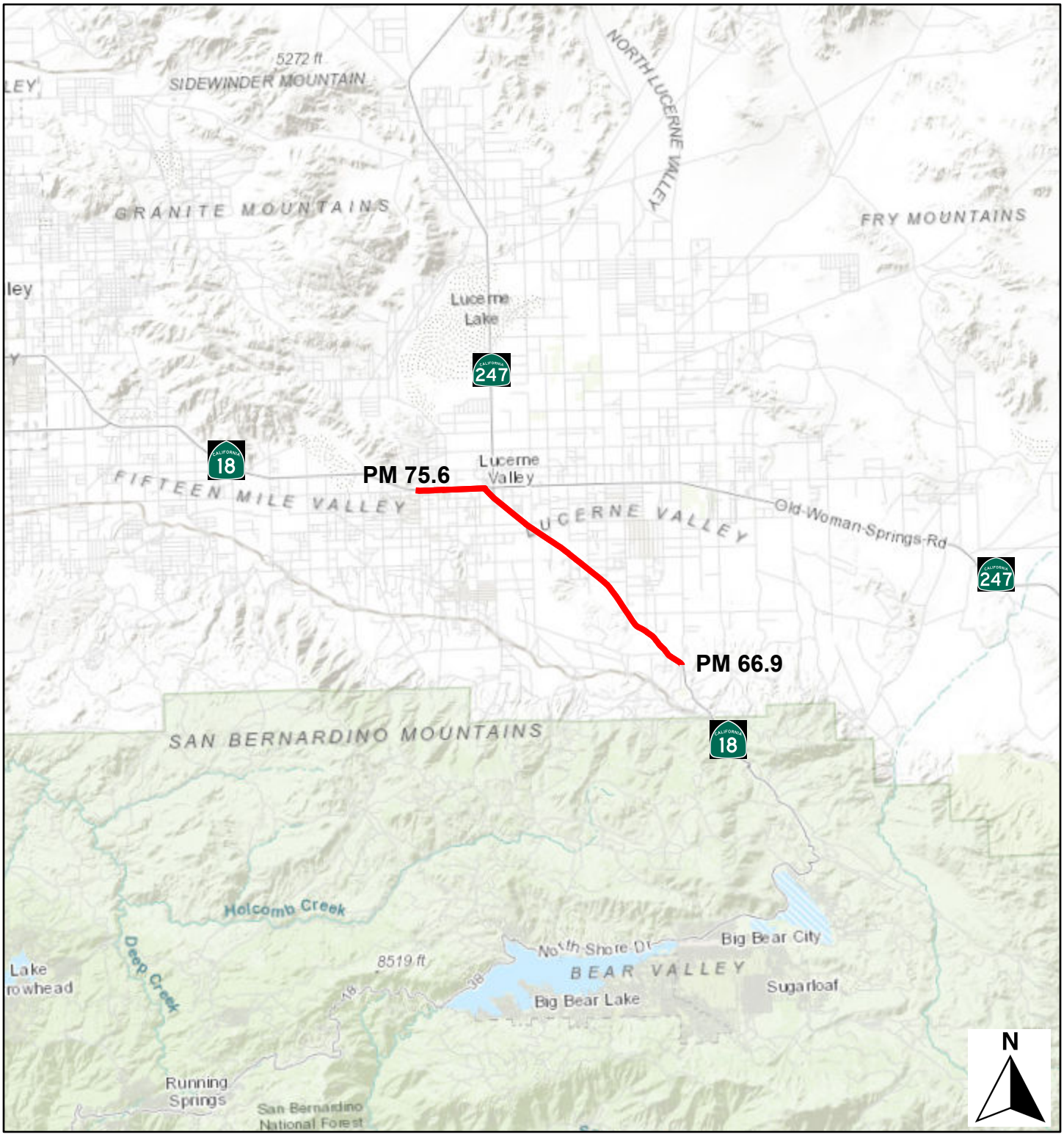
- 0.35 feet of Partial Depth Recycling (PDR) and 0.15 feet overlay of Hot Mix Asphalt (HMA-A)
- Construction of 8-foot shoulders with tapered edges and shoulder backing with 0.35' HMA-A and 0.35' Class 2 Aggregate Base
- Replacement of sign panels
- Replacement of existing Metal Beam Guardrail (MBGR) with Midwest Guardrail System (MGS)
- Installation of vegetation control
- Upgrade of TMS elements
- Extension of culverts within the project limits
- Installation of median and shoulder rumble strips
- Concrete barrier transitions would be installed to connect the MGS to the existing bridge railing at the following bridges: Artic Canyon Wash (Bridge No. 54-0569) and Lucerne Valley Storm Drain (Bridge No. 54-1047)
- Installation of high-visibility crosswalks at SR-18/Crystal Creek Road intersection
- Construction of refuge pads at SR-18/Crystal Creek Road intersection
- Refreshment of recessed pavement markers.

The construction of standard shoulders and graded slopes may require right-of-way acquisition to 105 parcels and one parcel from the Bureau of Land Management (BLM) APN 04472215. The proposed project would not increase the traffic capacity.

The project construction would be carried out in several construction stages to maintain traffic flow during construction. It is currently proposed to have one lane open during construction hours.

The capital cost for this alternative is estimated at $27,724,000. The estimated number of working days is 205. 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.

SBD-18 Lucerne Valley Pavement Rehab



September 24, 2023

Postmile 66.9/75.6

0 2.25 4.5 9 Miles

Division of Environmental Analysis

Permits and Approvals Needed

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

Agency	PLAC	Status
California Department of Fish and Wildlife	1602 Agreement for Streambed Alteration Western Joshua Tree Protection Act In-Lieu Fee Program	Application for the 1602 Agreement and consultation for the Western Joshua Tree Protection Act In-Lieu Fee Program will occur during the Final Design phase of the project. The project will not proceed to construction before receiving these permits.
Regional Water Quality Control Board	Water Discharge Requirement (WDR)	The WDR will be determined during the Final Design phase of the project. The project will not proceed to construction before receiving the WDR.
US Army Corp of Engineers (USACE)	Approved Jurisdictional Determination (AJD)	The AJD will be determined during the Final Design phase of the project. The project will not proceed to construction before receiving the AJD.

Chapter 2 – California Environmental Quality Act (CEQA) Evaluation

CEQA Environmental Checklist

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

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapter 1 for a detailed discussion of these features.

2.1 AESTHETICS

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

CEQA Significance Determinations for Aesthetics

a) No Impact: According to the Visual Impact Assessment (VIA), completed on July 21, 2023, the proposed project would have negligible visual changes to the environment. Therefore, there would be no impacts.

b) No Impact: SR-18 is not designated as a state scenic highway and there are no designated scenic highways within the project limits. The San Bernardino General Plan Land Use Map classifies the area as “Rural Desert Communities” which includes Rural Living and Resource/Land Management. The proposed project would not damage scenic resources or historic buildings. Therefore, the proposed project would not damage scenic resources.

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

CEQA Significance Determinations for Agriculture and Forest Resources

a) No Impact: According to the California Department of Conservation Map, the proposed project limits are within Grazing Land. There are no farmlands or vacant lands mapped as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance within the vicinity. The project would not convert Farmlands to non-agricultural use.

b) No Impact: There are no parcels under a Williamson Act contract within the project limits.

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 of 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 Agriculture 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

CEQA Significance Determinations for Air Quality

a) No Impact: The proposed project is located in 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 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 of Caltrans Carbon Monoxide (CO) Protocol or Table 2 of 40 CFR 93.126 and is exempt from all air emissions analysis. Therefore, the proposed project will not conflict with the Air Quality Management Plan (AQMP), violate any quality standard, result in a net increase of any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations.

The proposed project is included in the 2021 Federal Transportation Improvement Program (FTIP) from the *2021 Grouped Project Detailed Backup Listings* on the Southern California Associated of Governments (SCAG) website.

As such, project emissions are consistent with applicable air quality plans and 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 Alternative 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) Less Than Significant: California Air Resources Board (CARB) characterizes sensitive land uses as simply as possible by using the example of residences, schools, playgrounds, and medical facilities. Playgrounds could be play areas associated with parks or community centers. Lucerne Valley Senior Center, Pioneer Park and Lucerne Valley Elementary school is located within a 0.5 mile of the proposed project improvements. The project emissions would be short term and transitory, and fugitive dust would be limited through compliance with MDAQMD Rule 402. Implementation of the proposed project would not increase criteria pollutants and their precursors following the construction period. Since the construction would result in short-term generation of emissions, though no increases would occur during project operation, impacts related to exposing sensitive receptors to substantial pollutant concentration would result in a less than significant impact.

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 Air Quality.

2.4 BIOLOGICAL RESOURCES

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

CEQA Significance Determinations for Biological Resources

a) Less Than Significant with Mitigation Incorporated: A Natural Environment Study was prepared in August 2023. Caltrans has determined that the project may have *take* of the State Candidate species: Western Joshua Tree. The project is anticipated to result in *no take* to other State-listed or Candidate species and is not anticipated to cause species of special concern and rare species to trend towards becoming listed. Consultation with CDFW is anticipated for the Western Joshua Tree Protection Act In-Lieu Fee Program.

Special-Status Plant Species

A focused special-status plant survey and special-status plant species habitat assessment was conducted in May 2023. The survey was scheduled to coincide with the target species'

blooming periods and during a period when target species were most likely identifiable. A total of four surveys were conducted in mid-May to provide 100-percent visual coverage of the entire Biological Study Area (BSA). The Western Joshua Tree *(Yucca brevifolia)* is a State-listed candidate species and was observed within the BSA and Project Impact Area (PIA) during the rare plant surveys in 2022 and 2023 Spring rare plant surveys. The alkali mariposa lily, Booth's evening-primrose, Cushenbury rose, little-leaved palo verde, and desert milkweed were all observed during the surveys; however, these plants are not listed under the State Endangered Species Act.

Joshua Tree is a California State Candidate Endangered species. This species is a monocotyledonous tree that is native to the arid Southwestern United States, specifically California, Arizona, Utah, and Nevada. It is confined mostly to the Mojave Desert between 400 and 1800 meters (1300 to 5900 feet) in elevation. During the 2022 surveys, 1,735 Joshua trees were documented. In the 2023 survey, an additional 881 Joshua trees were observed within the Project boundaries, which results in a total of 2,616 Joshua trees observed in the BSA.

The Project would cause ground disturbance and possible vegetation removal. Removal of special-status plant species will be avoided, as feasible, and delineated as an Environmentally Sensitive Area (ESA). Direct and indirect impacts are possible if avoidance and minimization measures cannot be implemented during the pre-construction and construction phases of the Project. Potential indirect impacts are those that occur due to the proximity of a disturbance or development to a species or its habitat. Examples of indirect impacts include impacts to reproduction and exposure to additional dust that limits growth. These impacts occur over the short term, during construction, and over the long term, due to proximity of new Project features. The magnitude of an indirect impact can be as significant as that of a direct impacts, depending on the circumstances. Direct impacts entail those that destroy or displace a species or its habitat. These impacts can occur in association with the Project construction due to vegetation removal, tree cutting, or hitting trees with construction vehicles.

Based on current Project Area, direct impacts to 500 western Joshua trees and indirect impacts to 2,116 western Joshua trees may occur resulting from Project activities. Based on work activities and survey results, Caltrans anticipates *take* of western Joshua tree.

In order to minimize effects during construction, Caltrans Standard Best Management Practices (BMPs) and the 2023 Standard Specifications (or latest versions) must be implemented.

If impacts to state-listed or candidate state species occur as a result of the proposed Project, take authorization permits are required from CDFW, then compensatory mitigation to offset impacts to those species would be outlined in those permit documents.

Caltrans proposes temporary impacts to be restored onsite at a 1:1 ratio. Compensatory mitigation for permanent impacts is potentially anticipated, with resource agency approval, through on-site restoration activities, permittee-responsible mitigation, suitable mitigation/conservation bank credits, suitable in-lieu fee program credits, and/or other mitigation acceptable to the resource agencies involved as applicable.

The Western Joshua Tree Protection Act In-Lieu Fee Program CDFW may be required for Joshua tree impacts. Mitigation, if applicable, will be determined based on coordination with CDFW.

Special Status Animal Species

Animals are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring on site. Western fence lizard (Sceloporus occidentalis), western side-blotched lizard (Uta stansburiana elegans), great basin whiptail (aspidoscelis tigris tigris), red tailed hawk (Buteo jamaicensis), turkey vulture (Cathartes aura), mourning dove (Zenaida macroura), common raven (Corvus corax), house finch (Haemorhous mexicanus), northern mockingbird (Mimus polyglottos), California quail (Callipepla californica), white-crowned sparrow (Zonotrichia leucophrys), house sparrow (Passer domesticus), Anna's hummingbird (Calypte anna), and white-tailed antelope squirrel (Ammospermophilus leucurus) were observed in the BSA.

Desert tortoise (Gopherus agassizii) is a State threatened species. The desert tortoise spends up to 95% of its life underground. It lives in a variety of habitats from sandy flats to rocky foothills, including alluvial fans, washes, and canyons where suitable soils for den construction might be found. Their diet generally consists of wildflowers, grasses, and cacti. The Mojave and Sonoran deserts are where the desert tortoise is usually found, specifically in southeastern California.

During the Jurisdictional Delineation and Rare Plant Surveys in 2023, no signs of Desert Tortoise were observed. There is suitable habitat in the form of Mojavean desert scrub throughout the BSA and PIA. This species is not anticipated to be burrowing in the PIA due to disturbance. However, individuals may still be found in the PIA as they search for food and water. California Natural Diversity Database (CNDDB) did not have any records of desert tortoise in the BSA so this species presence is not anticipated.

Although desert tortoise was not observed within the BSA during 2023 surveys, suitable habitat is present within the BSA. As such, desert tortoises have the potential to occur within the BSA at any time. The project has the potential to directly impact these species via crushing or other forms of injury while they are traversing the PIA. Burrows may also be destroyed from project activities. Indirect effects include temporary surface/vibration disturbances because individuals may be deterred from inhabiting or foraging in areas near such activities. Additional indirect impacts could occur from construction related dush, trash, sedimentation, and erosion along the site edges, which have the potential to alter offsite conditions.

Noxious weed seeds could be spread during construction activities to offsite habitats that are occupied by tortoise during travel to and from the site for by wind. If allowed to establish and spread, these weeds could alter the surrounding habitat for these species. Non-native vegetation often has little to no nutritional value for special-status reptile species. Conversion of native, nutritious vegetation, such as grasses and herbs, to invasive non-native vegetation, could result in reptiles being unable to find sufficient amounts of food. Establishment of non-native plants can also increase the risk of fires, which could harm reptiles.

Impacts to desert tortoise resulting from Project activities include direct and indirect impacts. Desert tortoise may be removed or crushed from equipment, leading to mortality or decreased fitness, and thus is considered a direct impact that could be permanent if individuals are not able to recover. Loss of vegetation or degradation of vegetation, even temporarily, may indirectly impact the desert tortoises.

Permanent impacts are analyzed as portions of the PIA where shoulder backing and road widening occur. Temporary impacts are analyzed as portions of the PIA that will contain no permanent structures or materials and are planned to be restored to pre-Project conditions. Temporary impacts that were evaluated include staging areas, limits of ground disturbance, and

vegetation removal. Caltrans has determined that there will be *no take* of desert tortoise under CESA.

Animal Species

Crotch bumblebee (Bombus crotchii) is a State Candidate Endangered species. This species occurs in open grassland and scrub habitats. It prefers a diet consisting of certain plant species including milkweeds, dusty maidens, lupines, phacelias, sages, clarkias, poppies, and wild buckwheat. The nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.

No Crotch bumblebees were observed during the 2023 surveys. CNDDB RareFind database does have historical observations of this species from 1940 that intersects with the PIA and there was Mojavean desert scrub and chenopod scrub observed during the surveys. Therefore, suitable habitat is present.

The Project has the potential to directly impact Crotch bumbebee by the removal of host plants for construction. Temporary impacts include vegetation removal, ground disturbance, and staging areas. Indirect, permanent impacts include habitat conversion through the introduction of invasive species that are addressed in the avoidance and minimization measures.

Based on the avoidance and minimization measures listed below, Caltrans anticipates the Project will have no take on the State Candidate Endangered Crotch Bumblebee.

Avian Species

The Burrowing owl *(Athene cunicularia)* is a CDFW Species of special concern. This species lives in Coastal prairie, coastal scrub, Great Basin scrub, Mojavean Desert scrub, Sonoran Desert scrub, Valley and foothill grassland.

Le Conte's thrasher *(Toxostoma lecontei)* is a CDFW Species of Special Concern. This species lives primarily in desert scrub, mesquite, tall riparian brush, and chaparral.

Costa's hummingbird *(Calypte costae)* is a Bird of Conservation Concern. This species lives primarily in desert and semi-desert, arid brushy foothills, and chaparral. Typically breeds in the southwestern US, including the southeastern border of California.

None of the above listed birds were observed within the BSA during 2023 surveys. There is suitable habitat within the BSA, however, and could be affected by auditory or visual disturbance. They may occur in the BSA and may be indirectly affected by project activities. CNDDB RareFind did have historical and recent observations of the burrowing owl and Le Conte's thrasher in the database. There were observations of burrowing owl in 2009 and 2010 less than a mile from the PIA as well as several other observations within five miles of the BSA. Le Conte's thrasher has a record from 1964 that intersects with the PIA and another observation from 1988 that is approximately 1.1 miles away from the BSA.

Based on the results of a literature search, special-status bird species have potential to occur within the BSA and in the vicinity. Impacts to vegetation communities that could provide suitable foraging habitat for special-status bird species may occur in association with the project due to disturbances associated with construction along with a permanent loss of foraging habitat from the shoulder backing and road widening.

Temporary impacts involving ground disturbance and vegetation removal could impact species in the area. The Project is not anticipated to substantially reduce foraging habitat or nesting habitat for special-status bird species. Any foraging individuals would avoid the work area during construction. Therefore, substantial impacts to these species are not anticipated. Suitable burrowing owl habitat is present in the BSA and PIA as burrowing owls have been known to burrow in the gore areas and adjacent to roads. The shoulder backing and road widening could potentially permanently remove suitable habitat for the owls.

There could be temporary impacts on these species if nesting occurs within the BSA, including loss of nesting habitat, nest destruction, nest abandonment, disturbance from construction noise and activities, increased risk of predation and degradation of suitable habitat. However, other than burrowing owl, nesting bird species are not anticipated to nest within the PIA due to disturbance. In addition, the avoidance and minimization efforts listed below, including preconstruction nesting bird surveys and monitoring, would ensure impacts on nesting birds, should they be present, do not occur.

Caltrans anticipates no take for birds protected under the migratory bird treaty act.

Caltrans Standard BMPs, the BMPs in the anticipated WPCP, and the 2023 Standard Specifications (or latest versions) must be implemented to minimize effects during construction. These additional measures, though not specified to biological resources, will help reduce indirect impacts on surrounding land, including dust control, measures to reduce fire risk, erosion and runoff control, and pollution prevention.

Mohave ground squirrel

Mohave ground squirrel *(Xerospermophilus mohavensis)* is a State threatened species. This species is found only in the Mojave Desert. It can occupy Joshua Tree woodlands, creosote scrub, saltbrush scrub, and Mojave mixed woody scrub.

No Mohave ground squirrels were observed during the 2023 field visits. However, there is Mojavean Desert scrub and creosote scrub brush habitat that was observed in the BSA and PIA. Furthermore, CNDDB Rarefind Database does have historical records of the species being within 5 miles of the project location. One observation, in 1886, intersected with the roadway and was within the BSA. The second observation, in 1954, was 3.23 miles away. Therefore, this species may be present in the BSA. There is a high level of disturbance in the PIA, making it less likely to be present.

Impacts to Mohave ground squirrel may include temporary indirect disturbance (such as noise, dust, and trash) from construction as well as direct disturbances from Project activities including vegetation removal and ground disturbance. Project-related activities could deter individuals from typical movements. Permanent, indirect issues may also result from Project activities, including the introduction of nonnative species and trash, which would permanently contribute to the degradation of habitat in the vicinity.

Permanent direct disturbances include areas with shoulder backing and road widening, which could permanently remove habitat from the Mohave ground squirrel's range. However, due to the lack of recent sightings within the PIA as well as no incidental observations during the 2023 surveys, Caltrans anticipates no take of the Mohave ground squirrel.

Caltrans Standard BMPs, the BMPs in the anticipated WPCP, and the 2023 Standard Specifications (or latest versions) must be implemented to minimize effects during construction.

These additional measures, though not specified to biological resources, will help reduce indirect impacts on surrounding land, including dust control, measures to reduce fire risk, erosion and runoff control, and pollution prevention.

Other Mammal Species

Pallid San Diego pocket mouse *(Chaetodipus fallax pallidus)* is a CDFW Species of Special Concern. This species occurs in desert wash, pinon & juniper woodlands, and Sonoran Desert scrub habitats. Found in desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, and pinyon-juniper. They prefer sandy, herbaceous areas usually in association with rocks or coarse gravel.

Townsends big-eared bat *(Corynorhinus townsendii)* is a CDFW Species of Special Concern. This species occurs in broad-leaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran Desert scrub, Sonoran thorn woodland, upper montane coniferous forest, and valley & foothill grassland habitats. Found throughout California, most commonly in mesic sites. Roosts in the open, hanging from walls and ceilings or in large basal hollows of old growth forest trees. Extremely sensitive to human disturbance.

Silver-haired bat *(Lasionycteris noctivagans)* is a species that lives in arid habitats at low elevations during seasonal migrations. Often roosts in tree cavities or in bark crevices.

None of the above mentioned special status species were observed during 2023 surveys. CNDDB Rarefind does have historical and recent observations for some of them. Townsends big-eared bat was observed in 2014 approximately 1.57 miles away from the PIA. The silver-haired bat has a CNDDB observation that intersect with the PIA from 1983. Pallid San Diego pocket mouse did not have any CNDDB observations within 5 miles of the BSA at time of writing this document, however there is desert scrub habitat present in the PIA and BSA.

Impacts to these mammal species may include temporary indirect disturbance (such as noise, dust, and trash) from construction as well as direct disturbances from Project activities including vegetation removal and ground disturbance. Project-related activities could deter individuals from typical movements. Permanent, indirect issues may also result from Project activities, including the introduction of nonnative species and trash, which would permanently contribute to the degradation of habitat in the vicinity.

Permanent direct disturbances include areas with shoulder backing and road widening, which could permanently remove habitat from the species' ranges. However, due to the lack of recent sightings within the PIA as well as no incidental observations during the 2023 surveys, Caltrans anticipates that project activities will not permanently impact these species or have them trend towards listing status.

Threats to special-status species include future development, habitat degradation, human and vehicular traffic, climate change, among others. These threats all exist within and in the vicinity of the PIA under pre-Project conditions. The current Project will occur within the ROW, which includes areas that are already primarily developed and disturbed. Although the construction of the Project may contribute to the incremental increase in cumulative effects related to climate change, the Project itself is primarily a maintenance project that will primarily effect areas that are already disturbed. The Project is not anticipated to have adverse cumulative effects.

b) Less Than Significant Impact with Mitigation Incorporated: A literature search identified eighty special status plants and animals, and nine natural communities as potentially occurring within the vicinity of the project. The project would result in less than significant impact with mitigation incorporated. Compensatory mitigation is anticipated for Joshua tree woodland impacts.

Natural Communities of Concern

Habitats are considered to be of special concern based on (1) State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring on site. Seven Sensitive Natural Communities have potential to be found, or were found within the project survey area. USFWS Critical Habitat (CH) for Cushenbury milk-vetch is within the BSA. Based on Spring 2023 surveys determined that no suitable Cushenbury milk-vetch habitat was present in the survey area.

Natural Communities of Special Concern are protected vegetation communities with limited distributions that often support special-status plants and/or wildlife. In some cases, wetlands and/or Waters of the State (WSC) are associated with these sensitive vegetation communities are also considered to be sensitive.

Potentially jurisdictional Waters of the RWQCB, Waters of the State, and habitat potentially jurisdictional to CDFW have been mapped within the BSA (50 ft buffer) consisting of both ephemeral and riparian habitat features.

The following Sensitive Natural Communities are classified pursuant to the CDFW classification code. Natural communities ranked S1 to S3 are considered to be communities of concern. Communities that have been deemed absent from the BSA are not discussed.

Joshua tree woodland

Trees are less than 14 m and the canopy is open to intermittent. Shrub layer is open to intermittent. Herbaceous layer is open to intermittent with perennial grasses and seasonal annuals. Yucca brevifolia evenly distributed at greater or equal to 1% cover, Juniperus and/or Pinus spp. less than 1% absolute cover in the tree canopy. Habitat includes gentle alluvial fans, ridges, gentle to moderate slopes. Soils are coarse sands, very fine silts, gravel, or sandy loams. Many sites have bimodal soils with both coarse sands and fine silts. This community has a state rarity rank of S3 (CNPS Natural Communities, 2023).

Compensatory mitigation for permanent impacts to Joshua tree woodland is potentially anticipated, with resource agency approval, through on-site restoration activities, permittee-responsible mitigation, suitable mitigation/conservation bank credits, suitable in-lieu fee program credits, and/or other mitigation acceptable to the resource agencies involved as applicable.

Creosote Bush-White Bursage scrub

This community is characterized by creosote bush (Larrea tridentata) and white bursage (Ambrosia dumosa) co-dominant in the shrub canopy and is found on alluvial fans, bajadas, upland slopes, and washes. Creosote bush – white bursage scrub has an open to intermittent canopy and an herbaceous layer of seasonal annuals. This community is present in the upland areas outside of the washes. Other species observed within this community include brittlebush (Encelia sp.), buckwheat (Eriogonum sp.), desert trumpet (Eriogonum inflatum) and nonnative common Mediterranean grass (Schismus sp.). Tamarisk (Tamarix sp.) were intermittently

present within this larger community alongside the drainages. Creosote bush – white bursage scrub has a state rarity ranking of S5 (CNPS Natural Communities, 2023).

Allscale scrub

Atriplex polycarpa is dominant in the shrub canopy. Emergent trees may be present at low cover, including Prosopis glandulosa. The shrub layer is less than 3 meters. The Canopy is open to continuous. The herbaceous layer is variable and includes seasonal annuals. Habitats include washes, playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and edges of large, low gradient washes. Soils may be carbonate rich, alkaline, sandy or sandy clay loams. The USFWS Wetland Inventory (1996 national list) recognizes Atriplex polycarpa as a FACU plant. This community has a state rarity rank of S4 (CNPS Natural Communities, 2023).

Shadscale scrub

The vegetation included in this alliance is characterized by a sparse to moderately dense shrub layer dominated or codominated by Atriplex confertifolia and/or Picrothamnus desertorum. These shrublands are usually associated with margins on large playas, valley bottoms, or alluvial slopes with medium to fine-textured soils but may occur on coarser soils of erosional slopes with calcareous substrates. Soils are alkaline and may have substantial salt accumulation. This community has a state rarity rank of S4.2 (CNPS Natural Communities, 2023).

Fourwing saltbush scrub

This alliance typically has a sparse to moderately dense short-shrub canopy that is dominated by Atriplex canescens. The herbaceous layer is sparse to moderately dense and dominated by warm-season, medium-tall and short grasses depending on the geographic range of the grasses. This alliance occurs in upland and lowland sites. Lowland sites include alluvial flats, drainage terraces, playas, washes, and interdune basins. Upland sites include bluffs and gentle to moderately steep, sandy, or rocky slopes. This community has a state rarity rank of S4 (CNPS Natural Communities, 2023).

Freemont cottonwood forest

Populus fremontii is dominant or co-dominant in the tree canopy. The trees are less than 25 meters. Canopy is continuous to open. The shrub layer is intermittent to open. The herbaceous layer is variable. The habitats include floodplains, along low-gradient rivers, perennial or seasonally intermittent streams, springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with dependable subsurface water supply that varies considerably during the year. The USFWS Wetland Inventory (1996 National List) recognizes Populus fremontii as a FACW plant. This community has a state rarity rank of S3.2 (CNPS Natural Communities, 2023).

Desert willow woodland

Chilopsis linearis and/or Psorothamnus spinosus is dominant or co-dominant in the tree or tall shrub canopy. Trees are less than 8 m tall and the canopy is open to intermittent. Shrub layer is open to intermittent. The herbaceous layer is sparse to seasonally abundant with annuals. The habitats includes washes, intermittent channels, canyon bottoms, arroyos, along floodplains, and wash terraces where flooding is infrequent but where subterranean water is available. Soils are well-drained sands and gravels that are moderately acidic to slightly alkaline. The USFWS

Wetland Inventory (2012 national list) recognizes Chilopsis linearis as a FAC plant. This community has a state rarity rank of S3 (CNPS Natural Communities, 2023).

Survey Results

ECORP biologists conducted the special-status plant species habitat assessment concurrently with the focused special-status plant survey in May 2023. During the habitat assessment, suitable habitat to support rare plants was observed throughout the BSA. Dominant vegetation communities in the BSA are creosote bush-white bursage scrub, Joshua tree woodland, and allscale scrub. Other vegetation communities observed in the BSA include shadscale scrub, desert scrub, fourwing saltbush scrub, Fremont cottonwood forest, and desert willow woodland.

Project Impacts

Potential impacts to natural communities of concern may occur in association with the Project due do disturbances associated with vegetation removal, ground disturbance, shoulder backing, and road widening. The PIA has some disturbed areas and areas with fewer disturbances. Indirect impacts such as water quality and litter control are addressed through avoidance and minimization measures.

Indirect impacts may result to natural communities due to nonnative species introduction and increased dust, both of which could reduce the quality of habitat or affect the survival and reproductive fitness of the plant species comprising the community. Indirect impacts, such as water quality and litter control, are addressed through avoidance and minimization measures.

Threats to natural communities include future development, habitat degradation, human and vehicular traffic, climate change, among others. These threats all exist within and in the vicinity of the PIA under pre-Project conditions. The current Project will occur within the ROW, which includes areas that are already primarily developed and disturbed. Although the construction of the Project may contribute to the incremental increase in cumulative effects related to climate change, the Project itself is primarily a maintenance project that will primarily effect areas that are already disturbed. The Project is not anticipated to have adverse cumulative effects.

c) Less Than Significant with Mitigation Incorporated: Surface hydrology within the Project originates from a combination of ephemeral washes, intermittent streams, and springs/seeps. The Project is located within the Southern Mojave Watershed, which is typified by desert washes and streams that terminate into isolated desert playas. Lucerne Lake is the closest water body to the Project Area.

Named streams within the BSA include Cushenbury Creek and Arctic Canyon Wash. Cushenbury Creek runs parallel to SR-18, beginning to the south at upper elevations and flowing eventually south, away from the highway. Arctic Canyon Wash runs adjacent to the San Bernardino Mountains as well and flows in a northeasterly direction. Both features flow into Lucerne Lake. Nearby springs include Cushenbury Spring, the Box S Spring, and additional small springs whose names are unknown.

Lucerne Lake is a dry, ephemeral lakebed that receives stormwater runoff and direct rainfall as well as agricultural runoff and urban runoff from surrounding communities. The lake is completely isolated from interstate waters and is dry during the majority of the year, and therefore it is not considered to be traditional navigable water (TNW). The Lake only fills up under extreme rainfall conditions.

Features identified as CDFW-jurisdictional had a defined streambed or channel with defined banks and an associated floodplain. In some cases, riparian habitat or hydrophytic vegetation is also associated with the floodplain where supported by streambed freshwater flows (surface to subsurface). CDFW jurisdictional limits tend to be larger than Ordinary High Water Mark (OHWM) defined by the USACE.

Survey Results

A total of 4.415 acres and 9,526 linear feet of potential waters of the U.S./State along with 4.842 acres of CDFW jurisdiction were mapped within the BSA. The majority of mapped features are unvegetated, ephemeral streams with flows only during storm events.

There are no wetlands present within the JDBSA. ECORP sampled one feature, an unnamed spring, due to its hydrophytic vegetation (Fremont cottonwood, Mexican rush) and other wetland-like characteristics, but the location did not support hydric soils and so was not considered to be a jurisdictional wetland.

All the unnamed riverine features plus Cushenbury Creek and Arctic Canyon Wash within the JDBSA are considered ephemeral drainages. All features generally flow south to north toward the open desert and the desert playa of Lucerne lake. All of the stormwater conveyances observed within the JDBSA were considered to be non-jurisdictional due to their lack of affiliation with a natural watercourse and because they are human-made. More information on the Jurisdictional Delineation can be found in Appendix F.

ECORP mapped a total of 0.347 acres of USACE jurisdiction within the Project Boundary, consisting entirely of non-wetland Waters of the US. No Traditional Navigable Waters (TNW) are present within or near the Delineation Area.

ECORP mapped a total of 0.347 acres of RWQCB jurisdiction within the Project Boundary, consisting of non-wetland riverine features.

ECORP mapped a total of 0.451 acres of CDFW jurisdiction within the Project Boundary consisting of 0.346 acres of streambed and 0.105 acres of associated riparian habitats.

Project Impacts

The results of the impact analysis within the JD BSA are provided in the report (Impact Acreages by Agency) and map of the delineation areas is provided in Appendix F.

For the purpose of this report, temporary impacts are considered as portions of the Project located within mapped features that are impacted for the duration of Project construction only. Temporary impacts do not involve paving with concrete or asphalt and are planned to be restored to pre-Project topography and include staging areas, construction access points, and temporary access ways.

Permanent impacts are considered to be portions of the Project where permanent structures are to be placed that will remain in place post-Project. Permanent structures can include areas paved by either cement and asphalt, extensions of culverts, and areas that are graded but not restored to pre-Project topography.

Since no TNW are present within or near the Delineation Area, all connecting stream features are therefore not likely to be considered as jurisdictional features under the current definition of Waters of the U.S.

Of the aquatic resources identified in the JD BSA, Features 1 through 91 are likely to be regulated by RWQCB as waters of the State pursuant to the Porter-Cologne Water Quality Control Act and a Section 401 Water Quality Certification (RWQCB) may be needed.

Of the aquatic resources identified in the JD BSA, Figures 1 through 91 Streambed, CDFW associated riparian vegetation, and CDFW trees (Fremont cottonwoods) are anticipated to be regulated by CDFW. If these features are impacted, the permit needed under Section 1600 of the California Fish and Game Code includes Section 1600 Lake and Streambed Alteration Agreement (CDFW).

Caltrans standard best management practices (BMPs) the BMPs in the anticipated stormwater pollution prevention plan (SWPPP) and 2023 Standard Specifications (or latest version) must be implemented to minimize effects during construction.

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

e) Less Than Significant Impact with Mitigation Incorporated: The proposed project would not conflict with any local policies or ordinances protecting biological resources. Regarding the Western Joshua Tree, the county is in support of the in-lieu fee program and will work with CDFW to ensure the permits are processed and reviewed by Sacramento. During the Design phase, Caltrans would be consulting and coordinating with CDFW on the removal of any Western Joshua Trees and would mitigate via the in-lieu fee program. Therefore, the proposed project would have less than significant impact with mitigation incorporated.

f) No Impact: This project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Avoidance, Minimization, and/or Mitigation Measures

BIO-General-1: Equipment Staging, Storing, and Borrow Sites. All staging, storing, and borrow sites require the approval of the Caltrans Biologist.

BIO-General-2: Temporary Artificial Lighting Restrictions. Artificial lighting must be directed at the job site to minimize light spillover onto surrounding habitat if project activities occur at night.

BIO-General-6: Species Avoidance. If during project activities a Joshua tree, special-status plant species, nesting bird or desert tortoise is discovered within the project site, all construction activities must stop within 10 ft for plants, 100 ft for nesting birds, and 50 ft for desert tortoise and the Caltrans Biologist and Resident Engineer must be notified. Coordination with CDFW and USFWS may be required prior to restarting activities.

BIO-General-7: Worker Environmental Awareness Program (WEAP). A Qualified Biologist must present a biological resource information program/WEAP for desert tortoise, special-status

plant species, and protected natural communities prior to project activities to all personnel that will be present within the project limits for longer than 30 minutes at any given time.

BIO-General-8: Biological Monitor. The Qualified Biologist must monitor project activities weekly to ensure that measures are being implemented and documented and daily for any nesting birds observed during preconstruction surveys.

BIO-General-9: Environmentally Sensitive Area (ESA). To address impacts to Joshua tree woodland, Sandbar Willow thickets, Fremont cottonwood forest, and Cushenbury milk-vetch critical habitat, delineate this area as an ESA as shown on the plans and/or described in the specifications.

BIO-General-10: Environmentally Sensitive Area (ESA) Fence Monitoring. Integrity inspections of temporary high visibility fencing must occur weekly throughout the duration of the project, 30 days prior to commencing project activities, and after activities are completed. If during construction the fence fails, work must stop until it is repaired, and the Qualified Biologist inspects (and clears) the job site.

BIO-General-11: ESA Fence Removal. All fencing must be removed as a last order of work. During removal, a Qualified biologist must be present.

BIO-General-13: Animal Shelter. To prevent inadvertent harm of desert tortoise during project activities, all construction materials including but not limited to culverts and sections of pipe, must be inspected for the presence of wildlife sheltering in them prior to use or movement of those materials. Sheltering animals must be released by the Qualified Biologist.

BIO-General-14: Predator Prevention. Project personnel are prohibited from feeding wildlife or bringing pets on the job site.

BIO-General-16: Invasive Weed Control. To address impacts to natural communities, critical habitat, and special-status plant species, a Qualified Biologist must identify invasive species within the Project Impact Area during shoulder backing and road widening. Treatment and disposal methods must be approved by the Caltrans Biologist prior to vegetation removal.

BIO-General-PSM-17: Agency Notification and Reporting Requirements. Any listed species within or near the job site, or as specified in BIO-General-6, found alive, injured or dead during the implementation of the Project must be immediately reported to the Resident Engineer and Caltrans Biology. Caltrans Biology must then notify the Resource Agencies. Treatment and/or final deposition must follow Resource Agencies' approval. Monitoring reports must include WEAP training and submitted to the Resource Agencies on a timeframe to be determined.

BIO-Plant-1: Rare Plant Surveys, Flagging, and Fencing. Within three days prior to construction, a preconstruction survey must be conducted by a Qualified Biologist for special-status plant species within the PIA and 50 feet of the PIA. Special-status species must be flagged for visual identification to construction personnel for work avoidance. Special-status plant species detected that feature multiple plants in a single location must be fenced with Environmentally Sensitive Area (ESA) high visibility fencing.

BIO-Plant-PSM-3: Top Soil Conservation. Prior to any groundbreaking activities, the top soil, or duff, of a project must be scrapped and stored to be redistributed on the project site after construction activities are completed.

BIO-Reptile-1: Equipment Flagging. After each shift, order project personnel to attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for desert tortoise and other special-status species before operating equipment during the next shift.

BIO-Reptile-5: Trash/Predation. If project activities cannot avoid the nesting bird season (February 1 through September 30), then preconstruction nesting bird surveys must be conducted 3 days prior to construction by a Qualified Biologist to locate and avoid nesting birds. If any active nest is located, a no construction buffer may be established and monitored by the Qualified Biologist.

BIO-Avian-2: Preconstruction Burrowing Owl Survey. Two burrowing owl preconstruction surveys must be performed: one survey 14 to 30 days prior to project activities, and one survey 24 hours prior to project activities.

BIO-Arthropod-1: Rare Insect Host Plant Preconstruction Clearance Survey, Flagging, and Fencing. No more than 3 days prior to project activities, a Qualified Biologist must perform a preconstruction survey for rare insect host plants within the PIA and 50 outside the PIA. Should any rare insect host plants be found, the Resident Engineer and Caltrans Biologist must be contacted, and host plants must be flagged by the Qualified biologist for visual identification to construction personnel for work avoidance. Should multiple plants in a single location be found, the groupings must be fenced with Environmentally Sensitive Area (ESA) temporary high visibility fencing.

BIO-Arthropod-PSM-2: Plant Seed Mix. Seed mixes must contain a diverse array of native pollinator plant species.

2.5 CULTURAL RESOURCES

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

CEQA Significance Determinations for Cultural Resources

a) No Impact: A Historical Property Survey Report (HPSR) for the proposed project was approved on Sept. 27, 2023. The Area of Potential Effect (APE) was developed from the Project Footprint, the project description, and was established to include both direct and indirect effects that may develop as a result of the Project. The APE is continuous and has a maximum vertical APE of 32 inches for the installation of guardrail and a maximum depth of 3.4 feet. The depth for the embedding guardrail posts and one for earthwork excavation will be 1 feet. Subsurface sensitivity for the project area has been determined to be low due to the original construction of SR-18, in conjunction with various maintenance projects in the project area.

Caltrans, pursuant to Section 106 PA Stipulation IX.A, has determined a Finding of No Historic Properties Affected is appropriate for this undertaking because there are no historic properties within the APE. Therefore, the project is not expected to cause a substantial adverse change and would result in no impact.

b) No Impact: Caltrans Cultural Resources Database (CCRD) identified 24 resources within the post miles of the project. The cultural resources were a mixture of historic and prehistoric sites. After further review of the As-Built Files, historical maps and aerial photographs, Google Earth, previous projects and pedestrian surveys, it was determined that the resources are exemptible under the Programmatic Agreement Attachment 4, Properties Exempt from Evaluation. No other archaeological resources were identified in or near the work areas proposed for the project. Based on the scope of the project, the construction and continued maintenance conducted within the project area is unlikely to encounter and effect unknown resources. As such, the proposed project would not cause a substantial change in significance of an archaeological resource.

c) No Impact: Human remains are not expected to be encountered. Caltrans standard specifications will be implemented in the event human remains are found during construction activities.

Avoidance, Minimization, and/or Mitigation Measures

CR-1: If cultural materials are discovered during construction, all earth-moving activity within sixty feet (60') around the immediate discovery area will be diverted until a qualified archaeologist can assess 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; Ashley Bowman, Acting Cultural Studies Senior Environmental Planner, DEBC [(909)472-7730] 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

CEQA Significance Determinations for Energy

a) No Impact: The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, as the proposed project would rehabilitate the pavement and improve the ride quality of SR-18. Caltrans implements best management practices (BMPs) to prevent wasteful consumption of resources. As a result, 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

CEQA Significance Determinations for Geology and Soils

a i) No Impact: According to the California Department of Conservation Earthquake Zones of Required Investigation Maps, the proposed project location is near Cougar Buttes and Lucerne Valley Fault Zones. The Cougar Buttes Fault Zone intersects at PM 66.9 and continues to for approximately 1.3 miles north. The Lucerne Valley Fault Zone intersections the project location for approximately 0.5 miles north, starting at PM 68.2. The purpose and need of the project are to preserve and extend the service life of the existing pavement and improve ride quality, as well as other roadway deficiencies along SR-18 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, there have been no ruptures near the project location. All Caltrans projects follow the Standard procedures regarding seismic design to avoid or minimize any significant impacts related to seismic ground shaking. Due to the scope of the proposed project, there would be no impact because project construction and operation would have no opportunity to rupture a known earthquake fault or cause seismic shaking.

a iii) No Impact: According to the San Bernardino Geology Hazards Maps in the San Bernardino County General Plan, there are no liquefaction areas within the proposed project site. 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 the San Bernardino Geology Hazards Maps in the San Bernardino County General Plan, there is not a possibility for a landslide. No impacts would occur.

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

c) No Impact: The Department of Conservation Geologic Hazards Map does not identify any geologic hazards for the project. The scope of the project would not cause the soil to become unstable or result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Therefore, there would be 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: The proposed project would not have soils incapable of adequately supporting the use of the septic tanks or alternative waste water disposal systems.

f) No Impact: The proposed project is occurring on the roadway along SR-18 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

CEQA Significance Determinations for Greenhouse Gas Emissions

a) Less Than Significant Impact: The project would result in 747 Tons of CO_2e (CO_2 equivalent) during the 205 days of construction. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere. Use of certain pavement and materials can help offset GHG emissions produced during construction. In addition, as the project is not a capacity increasing project, it is anticipated that it would not result in an increase in operational GHG emissions. With implementation of construction GHG-reduction measures (GHG-1 through GHG-5), the impact would be less than significant.

b) No Impact: The project would 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
The following measures would be implemented for Greenhouse Gases:

GHG-1: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).

GHG-2: Maximize use of recycled materials.

GHG-3: Recycle existing project features on-site.

GHG-4: Use recycled water or reduce consumption of potable water for construction.

GHG-5: Use Partial Depth Recycling as the construction method to rehabilitate the pavement.

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

2.9 HAZARDS AND HAZARDOUS MATERIALS

CEQA Significance Determinations for Hazards and Hazardous Materials

a) Less Than Significant Impact: The proposed project may result in a less than significant impact with mitigation incorporated due to the disposal of hazardous materials. The project would implement measures to mitigate the impacts. The result of the study is being evaluated and would be further analyzed upon completion.

b) Less Than Significant Impact: The proposed project has the potential to release 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. The project is expected to have a less than significant impact.

c) No Impact: The project would not emit hazardous emissions or handle hazardous waste within one-quarter mile of a school. The nearest school is located 0.5 miles away from the project site. Therefore, the project would have no impact.

d) Less Than Significant Impact: The project has a risk of being located on a site which is included on a list of hazardous materials pursuant to Government Code Section 65962.5. As a result, the project has less than significant impact. This would be further determined once the study is complete. A less than significant impact is expected.

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 would 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 impact.

g) Less Than Significant Impact: The proposed project is located within a moderate fire hazard zone. Due to the scope of the project, the project has a low potential of exposing people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Avoidance, Minimization, and/or Mitigation Measures

HAZ-1: SSP 14-11.14 – Handling, storing, transporting and disposing of treated wood waste. Dispose of treated wood waste at one of the following:

- An approved CA disposal site operating under RWQCB permit that includes acceptance of treated wood waste
- CA disposal site operating under DTSC permit that includes acceptance of treated wood waste

HAZ-2: SSP 36-4 - Cold Planning. Any handling of leaded paint and thermoplastic from cold planning shall be in accordance with Caltrans' Standard Specifications section 36-4 and comply with Health and Safety Code 22 CA Code of Regs. Management of this material exposes workers to health hazards that must be addressed in the lead compliance plan.

2.10 HYDROLOGY AND WATER QUALITY

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

CEQA Significance Determinations for Hydrology and Water Quality

a) No Impact: The proposed project 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 is expected to result in no impacts.

c) i), Less Than Significant Impact with Mitigation Incorporated: The purpose of the project is to preserve and extend the service life of the existing pavement. Project activities would result in erosion or siltation on or off site and a net new impervious (NNI) area of 15.2 acres. Treatment BMPs would be implemented to ensure the project would result in Less Than Significant Impact with Mitigation Incorporated.

c) ii) Less Than Significant Impact with Mitigation Incorporated: The project would result in an increase of rate or surface runoff on or off site. Treatment BMPs would be implemented.

c) iii) Less Than Significant Impact with Mitigation Incorporated: The project would create or contribute runoff water into the drainage systems. Treatment BMPS would be implemented which would result in a less than significant impact with mitigation incorporated.

c) iv) Less Than Significant Impact with Mitigation Incorporated: The proposed project would impede or redirect flood flows. Impacts are expected but Treatment BMPs are proposed.

d) No Impact: The project is not within a flood hazard, tsunami, or seiche zone. As a result, there would be no impact.

e) No Impact: The project would not conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan. Therefore, there would 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

CEQA Significance Determinations for Land Use and Planning

a) No Impact: Implementation of the proposed project's location would not divide an established community, as the work would be done on the existing pavement along SR-18. Therefore, the project would 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 as Resource Conservation, BLM, and Private Unincorporated. The proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation. The project would 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

CEQA Significance Determinations for Mineral Resources

a) No Impact: According to the San Bernardino Countywide General Plan, the project area does not have any mineral resources. Since the project proposes to preserve and extend the service life of the existing pavement, as well as other roadway deficiencies along SR-18, 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 would 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

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 not a Type I project; 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. There is no noise- or vibration- sensitive uses located in the immediate project vicinity and because the proposed project would comply with Caltrans' Standard Specification 14-8.02 and Standard Special Provision (SSP) 14-8.02, 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

NOI-1: Control and monitor noise resulting from work activities. Do not exceed 86dBA Lmax at 50 feet from the job site from 9:00 p.m to 6:00 a.m.

2.14 POPULATION AND HOUSING

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

CEQA Significance Determinations for Population and Housing

a) No Impact: The purpose of the project is to preserve and extend the service life of the existing pavement, as well as other roadway deficiencies along SR-18. The proposed project would not induce substantial population growth in the area, either directly or indirectly. Therefore, there would be no impacts.

b) No Impact: Right of way may be acquired for the proposed project improvements but would not necessitate the relocation of any developments and/or people. 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

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

CEQA Significance Determinations for Public Services

a) Response to Fire protection and Police protection: No Impact. The CSA 29 Fire Department and San Bernardino County Fire Station 8 are located near the project vicinity. 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. In addition, the proposed 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. As a result, there are no impacts.

Response to Police Protection: No Impact. The San Bernardino County Sherriff's Department is within 0.04 mile of the project limits and provides police protection to the project vicinity. The proposed project would not induce growth or increase population in the study area or the greater community beyond what is previously planned for and would not result in the need for additional police protection. No impacts on police protection from operation of the proposed project would occur.

Response to Schools: No Impact. Lucerne Valley Elementary school is located within a 0.5 mile of the proposed project improvements. The proposed project would not result in accessibility problems to existing schools and is not expected to result in any other impacts on school services. As such, there are no impacts.

Response to Parks: No Impact. Pioneer Park is within 0.5 mile of the project vicinity. Access may be delayed due to construction activities. However, the proposed project would not result in adverse physical impacts and would have no impact on the park.

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

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

CEQA Significance 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

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

CEQA Significance Determinations for Transportation

a) No Impact: The Caltrans District 8 Active Transportation Plan Map indicates that there are no prohibitions to bicyclists and pedestrians along SR-18. The proposed project implements complete streets elements and would improve safety, access, and mobility for bicycle users by providing an 8-foot shoulder on both sides of the highway with bike-friendly shoulder rumble strips for bicycle use. In addition, the project would enhance the pedestrian facilities to include high visibility crosswalks and refuge pads at SR-18/Crystal Creek Road intersection as appropriate and feasible. The project would not increase traffic because no new land uses are proposed. The project would accommodate existing traffic demand and would not create new demand as it's not a capacity increasing project. Therefore, 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: Due to the nature and scope, 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. This could lead to an increase in delay times for emergency response vehicles during construction. However, the project proposes to have one lane open during construction hours and would implement a Traffic Management Plan. The completion of the project would not result in inadequate emergency access.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, or mitigation measures are required for Transportation.

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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

CEQA Significance Determinations for Tribal Cultural Resources

a) No Impact: The project would not cause a substantial adverse change in the significance of tribal cultural resource or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k).

A request was made to the Native American Heritage Commission (NAHC) for a Sacred Land File (SLF) search on February 27, 2023. The NAHC responded with negative SLF results for any cultural resources.

Letters requesting information about cultural resources or concerns regarding the project were consequently sent to two Native American tribes:

- Twenty-Nine Palms Band of Mission Indians, Sarah Bliss, Director Tribal Programs EPA. Initial consultation letter was sent on May 18, 2023 to Sarah Bliss, and follow-up tribal consultation attempts were made on July 5 and August 4, 2023, to Sarah O'Brien, Tribal Archivist. To date, a response has not been received.

- Yuhaaviatam of San Manuel Nation, Jessica Mauck, Director of Cultural Resources. Initial consultation letter was sent on May 18, 2023. An email with an attached letter was received from Dr. Alexandra McCleary, Cultural Lands Manager, stating that she was the point of contact for Yuhaaviatam of San Manuel Nation. The attached letter was from Lynn R. Valbuena, to the California NAHC notifying them of the change in point of contact. The email stated that Ryan Nordness, Cultural Analyst, will provide a response to Caltrans regarding the project. To date, a response has not been received.

b) No Impact: The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency. Caltrans, pursuant to

Section 106 PA Stipulation IX.A, has determined a Finding of No Historic Properties Affected is appropriate for this undertaking because there are no historic properties within the APE.

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 SYSTEMS

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals??	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

CEQA Significance Determinations for Utilities and Service Systems

a) No Impact: The existing utilities within the project limits belong to Big Bear Area Regional Wastewater Agency, Center Water Company, Mojave Water Agency, Pacific Gas and Electric (PG&E) Gas-transmission, Southwest Gas, Southern California Edison (SCE) distribution, and Frontier Communications. It is currently estimated that 46 electrical poles would need to be relocated within the existing right-of-way. The relocation of the electrical poles would be further analyzed during the Final Design phase of the project. Less than significant impacts are expected.

b) No Impact: The project would not require a water supply, as there are no existing 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:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

CEQA Significance Determinations for Wildfire

According to the map by CalFire's Fire and Resource Assessment Program (FRAP) (https://egis.fire.ca.gov/FHSZ/), the majority of the proposed project segment is located in a State Responsibility Area (SRA). North of SR-18 and SR-247 is a Local Responsibility Area (LRA). At Camp Rock Road, the end of the project limits, it is classified as a Federal Responsibility Area (FRA). The project area is classified as a Moderate Fire Hazard Severity Zone (FHSZ).

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

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

c) No Impact: The project would not require the installation or maintenance of the associated infrastructure. However, relocations of existing utilities are anticipated due to the scope of work. Since the utilities are already existing in the area, it is not expected to exacerbate a fire risk that would result in temporary or ongoing impacts to the environment. As a result, there would be no impact.

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.

2.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

CEQA Significance Determinations for Mandatory Findings of Significance

a) Less Than Significant with Mitigation Incorporated: The proposed project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species. Avoidance and/or minimization measures 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.

Climate Change

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

Human activities generate GHGs consisting primarily of carbon dioxide (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 and necessary component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO_2.

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

REGULATORY SETTING

For a full list of laws, regulations, and guidance related to climate change (GHGs and adaptation), please refer to Caltrans' Standard Environmental Reference (SER), Chapter 16, Climate Change.

Federal

To date, no nationwide numeric mobile-source GHG reduction targets have been established, 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. In January 2023, the White House Council on Environmental Quality (CEQ) issued updated and expanded interim National Environmental Policy Act Guidance on Consideration of Greenhouse Gas

Emissions and Climate Change (88 Fed. Reg. 1196) (CEQ NEPA GHG Guidance), in accordance with EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, 86 FR 70935 (Dec. 13, 2021) and EO 14008, *Tackling the Climate Crisis at Home and Abroad*. The CEQ guidance does not establish numeric thresholds of significance, but emphasizes quantifying reasonably foreseeable lifetime direct and indirect emissions whenever possible. This guidance also emphasizes resilience and environmental justice in project-level climate change and GHG analyses.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea level rise, 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 2022). 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.

Early efforts by the federal government to improve fuel economy and energy efficiency to address climate change and its associated effects include The Energy Policy and Conservation Act of 1975 (42 USC Section 6201); and Corporate Average Fuel Economy (CAFE) Standards. The U.S. Department of Transportation's National Highway Traffic and Safety Administration (NHTSA) sets and enforces corporate average fuel economy (CAFÉ) standards for on-road motor vehicles sold in the United States. The Environmental Protection Agency (U.S. EPA) calculates average fuel economy levels for manufacturers, and also sets related GHG emissions standards for vehicles under the Clean Air Act. Raising CAFE standards leads automakers to create a more fuel-efficient fleet, which improves our nation's energy security, saves consumers money at the pump, and reduces GHG emissions (U.S. DOT 2014). These standards are periodically updated and published through the federal rulemaking process.

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).

In 2005, EO S-3-05 initially set a goal to reduce California's GHG emissions to 80 percent below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies. The California Air Resources Board (ARB) was directed to create a climate change scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Ongoing GHG emissions reduction was also mandated in Health and Safety Code (H&SC) Section 38551(b). In 2022, the California Climate Crisis Act was passed, establishing state policy to reduce statewide human-caused GHG emissions by 85 percent below 1990 levels, achieve net zero GHG emissions by 2045, and achieve and maintain negative emissions thereafter.

Beyond GHG reduction, the State maintains a climate adaptation strategy to address the full range of climate change stressors, and passed legislation requiring state agencies to consider protection and management of natural and working lands as an important strategy in meeting the state's GHG reduction goals.

ENVIRONMENTAL SETTING

The proposed project is in a rural area of San Bernardino County along SR-18 from PM 66.9 to PM 75.6. SR-18 connects San Bernardino and Los Angeles Counties over an approximate length of 78 miles. It begins at SR-210 in San Bernardino County and ends at SR-138 within Antelope Valley. The highway varies between a two-lane and four-lane conventional highway. The route provides connectivity to various mountain communities such as Crestline, Running Springs, Arrowhead, Big Bear and others. SR-18 is an east-west corridor linking the unincorporated community of Lucerne Valley, the town of Apple Valley, city of Victorville and the city of Adelanto. The Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) guides transportation development in San Bernardino County. The County of San Bernardino Greenhouse Gas Reduction Plan Update addresses GHG in the project area.

GHG Inventories

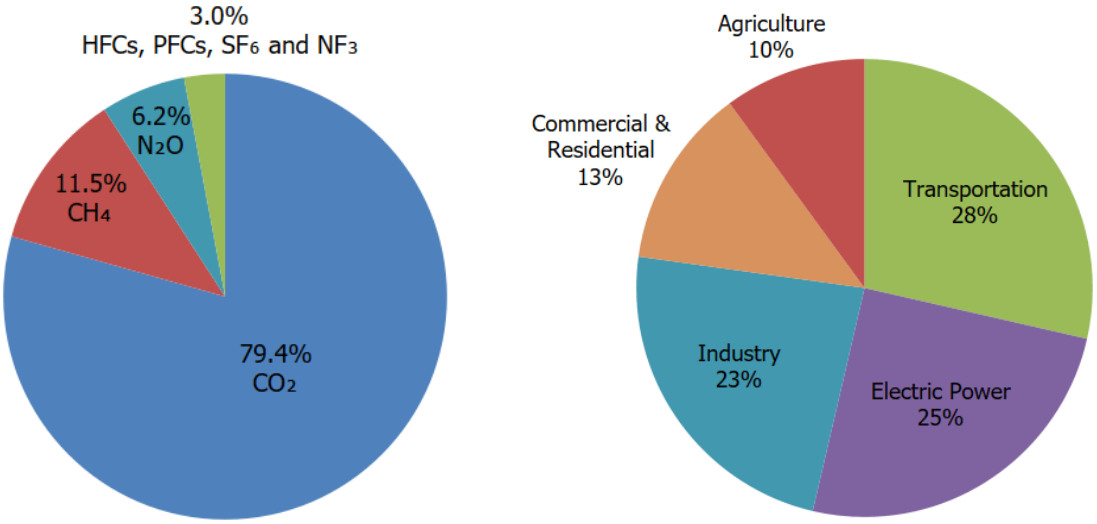
A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

NATIONAL GHG INVENTORY

The annual GHG inventory submitted by the U.S. EPA to the United Nations provides a comprehensive accounting of all human-produced sources of GHGs in the United States. Total national GHG emissions from all sectors in 2021 were 5,586.0 million metric tons (MMT), factoring in deductions for carbon sequestration in the land sector. (Land Use, Land Use Change, and Forestry provide a carbon sink equivalent to 12% of total U.S. emissions in 2021 [U.S. EPA 2023a].) While total GHG emissions in 2021 were 17% below 2005 levels, they increased by 6% over 2020 levels. Of these, 79.4% were CO_2, 11.5% were CH_4, and 6.2% were N_2O; the balance consisted of fluorinated gases. From 1990 to 2021, CO_2 emissions decreased by only 2% (U.S. EPA 2023a).

The transportation sector's share of total GHG emissions increased to 28% in 2021 and remains the largest contributing sector (Figure 2). Transportation fossil fuel combustion accounted for 92% of all CO_2 emissions in 2021. This is an increase of 7% over 2020, largely due to the rebound in economic activity following the COVID-19 pandemic (U.S. EPA 2023a, 2023b)).

Figure 2. U.S. 2021 Greenhouse Gas Emissions

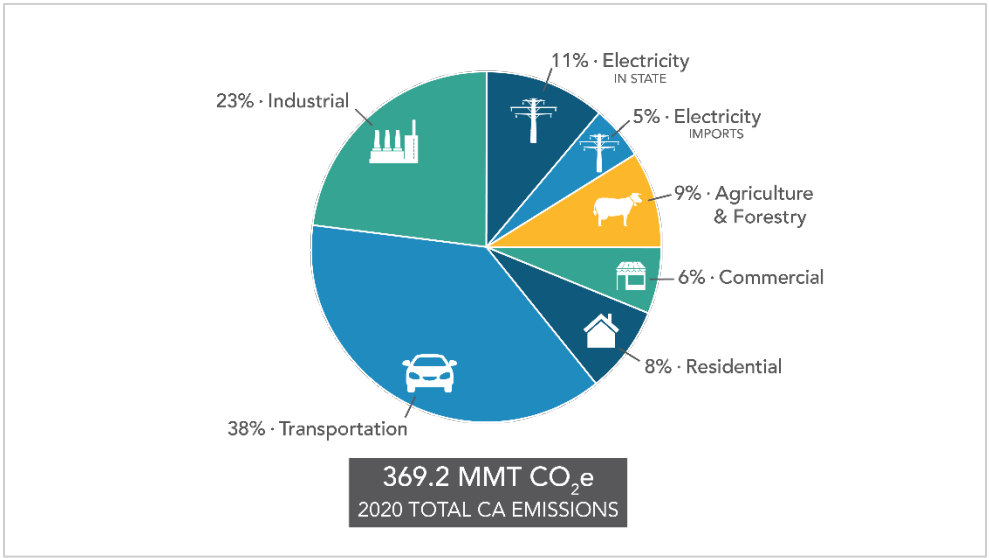


(Source: U.S. EPA 2023b)

STATE GHG INVENTORY

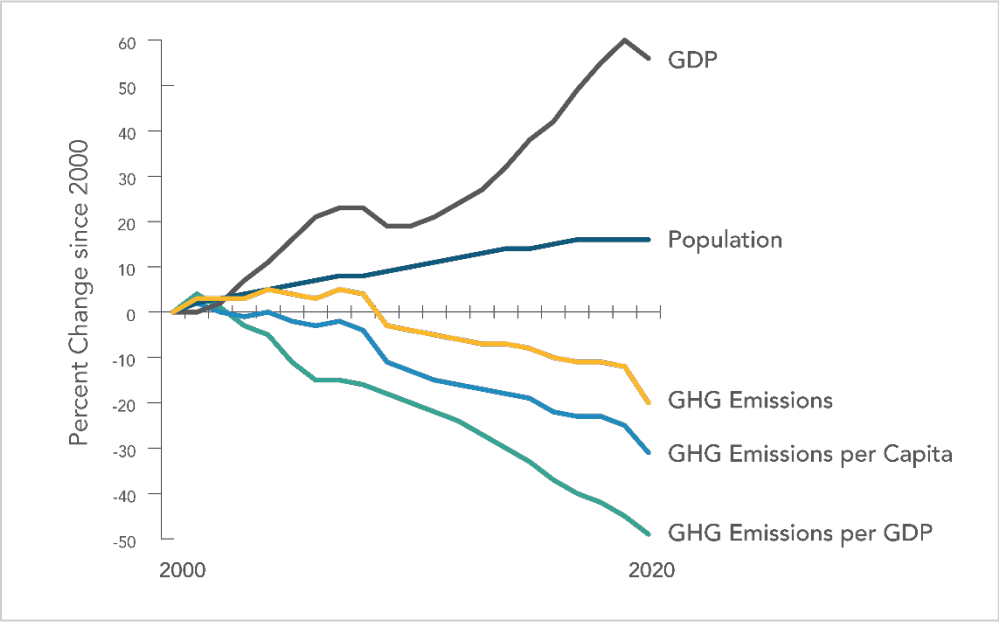
ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. Overall statewide GHG emissions declined from 2000 to 2020 despite growth in population and state economic output (Figure 4) (ARB 2022a).

Figure 3. California 2020 Greenhouse Gas Emissions by Economic Sector



(Source: ARB 2022a)

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



(Source: ARB 2022a)

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. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions. 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 *2022 Scoping Plan for Achieving Carbon Neutrality,* adopted September 2022, assesses progress toward the statutory 2030 reduction goal and defines a path to reduce human-caused emissions to 85 percent below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (ARB 2022b).

Regional Plans

As required by *The Sustainable Communities and Climate Protection Act of 2008*, ARB sets regional GHG reduction targets for California's 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for for Southern California Association of Governments (SCAG). The regional reduction target for SCAG is 19 percent by 2035 (ARB 2021).

Table 1. Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Policies or Strategies
2024 Regional Transportation Plan/Sustainable Communities Strategy (2024 RTP/SCS)	• Improve mobility, accessibility, reliability, and travel safety for people and goods • Enhance the preservation, security, and resilience of the regional transportation system • Increase person and goods movement and travel choices within the transportation system • Reduce greenhouse gas emissions and improve air quality • Adapt to a changing climate and support an integrated regional development pattern and transportation network • Leverage new transportation technologies and data-driven solutions that result in more efficient travel • Encourage development of diverse housing types in areas that are supported by multiple transportation options
San Bernardino County Regional Greenhouse Gas Reduction Plan (adopted September 2021)	• Promote water-efficient landscaping practices • Urban tree planting for shading and energy savings • Idling Ordinance – consider adopting an ordinance that limits idling time for heavy-duty construction equipment to 3 minutes • The County will implement recommended bikeway projects to improve bike transit, which would implement County's Non-Motorized Transportation Plan

PROJECT ANALYSIS

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH_4 and N_2O. A small amount of HFC emissions related to refrigeration is also included in

the transportation sector. (GHGs differ in how much heat each traps in the atmosphere, called 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”, or 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.)

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 purpose of the proposed project is to preserve and extend the service life of the existing pavement and improve ride quality and will not increase the vehicle capacity of the roadway. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on SR-18, no increase in vehicle miles traveled (VMT) would occur. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

Construction Emissions

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered “temporary” in the same way as criteria pollutants that subside after construction is completed.

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

Construction of the proposed project would result in GHG emissions from fuel combustion associated with off-road and on-road construction equipment and vehicles. The anticipated GHG construction activity emissions were calculated using the Caltrans

Construction Emissions Tool (CAL-CET). Construction of the proposed project is expected to last 205 days and would result in 747 Tons of CO_2e for the duration of project construction.

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

CEQA Conclusion

The proposed project would increase GHG emissions, during the construction period but is not anticipated to directly nor indirectly, 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

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

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement.

GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015).

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

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged, and vulnerable communities. To support this order, the California Natural Resources Agency released *Natural and Working Lands Climate Smart Strategy* (California Natural Resources Agency 2022).

Caltrans Activities

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

Climate Action Plan for Transportation Infrastructure

The California Action Plan for Transportation Infrastructure (CAPTI) builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021).

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).

CALTRANS STRATEGIC PLAN

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

CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Other Director's policies promote energy efficiency, conservation, and climate change, and commit Caltrans to sustainability practices in all planning, maintenance, and operations. *Caltrans Greenhouse Gas Emissions and Mitigation Report* (Caltrans 2020) provides a comprehensive overview of Caltrans' emissions and current Caltrans procedures and activities that track and reduce GHG emissions. It identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Caltrans and State goals.

Project-Level GHG Reduction Strategies

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

GHG-1: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment.

GHG-2: Maximize use of recycled materials.

GHG-3: Recycle existing project features on-site.

GHG-4: Use recycled water or reduce consumption of potable water for construction.

GHG-5: Use Partial Depth Recycling as the construction method to rehabilitate the pavement.

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. Furthermore, the combined effects of transportation projects and climate stressors can exacerbate the impacts of both on vulnerable communities in a project area. 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. Caltrans practices generally align with the 2023 CEQ interim Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, which offers recommendations for additional ways of evaluating project effects related to GHG emissions and climate change. These recommendations are not regulatory requirements.

The *Fifth National Climate Assessment*, published in 2023, presents the most recent science and "analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; [It] analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years … to support informed decision-making across the United States." Building on previous assessments, it continues to advance "an inclusive, diverse, and sustained process for assessing and communicating scientific knowledge on the impacts, risks, and vulnerabilities associated with a changing global climate" (U.S. Global Change Research Program 2023).

The U.S. Department of Transportation recognizes the transportation sector's major contribution of GHGs that cause climate change and has made climate action one of the department's top priorities (U.S. DOT 2023). FHWA's policy is 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 fosters resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2022).

The National Oceanic and Atmospheric Administration provides sea level rise projections for all U.S. coastal waters to help communities and decision makers assess their risk from sea level rise. Updated projections through 2150 were released in 2022 in a report and online tool (NOAA 2022).

State Efforts

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

California's Fourth Climate Change Assessment (Fourth Assessment) (2018) provides information to help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The Fourth Assessment reported that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an up to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures; a two-thirds decline in water supply from snowpack resulting in water shortages; a 77% increase in average area burned by wildfire; and large-scale erosion of up to 67% of Southern California beaches due to sea level rise. These effects will have profound impacts on infrastructure, agriculture, energy demand, natural systems, communities, and public health (State of California 2018).

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

To help actors throughout the state address the findings of California's Fourth Climate Change Assessment, AB 2800's multidisciplinary Climate-Safe Infrastructure Working Group published *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. This report provides guidance on assessing risk in the face of inherent uncertainties still posed by the best available climate change science. It also examines how state agencies can use infrastructure planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018).

EO S-13-08, issued in 2008, directed state agencies to consider sea level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea level rise. It gave rise to the 2009 *California Climate Adaptation Strategy*, the Safeguarding California Plan, and a series of technical reports on statewide sea level rise projections and risks, including the *State of California Sea-Level Rise Guidance Update* in 2018. The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current *California Climate Adaptation Strategy* incorporates key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy*, *Wildfire and Forest Resilience Action Plan*, *Water Resilience Portfolio,* and the CAPTI (described above). Priorities in the 2023 *California Climate Adaptation Strategy* include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023).

EO B-30-15 recognizes that effects of climate change threaten California's infrastructure and requires state agencies to factor climate change into all planning and investment decisions. Under this EO, the Office of Planning and Research published *Planning and*

Investing for a Resilient California: A Guidebook for State Agencies, to encourage a uniform and systematic approach to building resilience.

SB 1 Coastal Resources: Sea Level Rise (Atkins 2021) established statewide goals to "anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the coastal zone." As the legislation directed, the Ocean Protection Council collaborated with 17 state planning and coastal management agencies to develop the *State Agency Sea-Level Rise Action Plan for California* in February 2022. This plan promotes coordinated actions by state agencies to enhance California's resilience to the impacts of sea level rise (California Ocean Protection Council 2022).

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

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

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

CALTRANS SUSTAINABILITY PROGRAMS

The Director's Office of Equity, Sustainability and Tribal Affairs supports implementation of sustainable practices at Caltrans. The *Sustainability Roadmap* is a periodic progress report and plan for meeting the Governor's sustainability goals related to EOs B-16-12, B-18-12, and B-30-15. The Roadmap includes designing new buildings for climate change resilience and zero-net energy, and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023).

Project Adaptation Analysis

Sea Level Rise

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

Precipitation and Flooding

A climate-change risk analysis for precipitation and flooding and associated impacts to transportation facilities involves uncertainties related to the timing and intensity of potential risks. In addition, climate stressors (such as extreme temperatures, heavy precipitation, and sea level rise) on floodplains are also factors to consider when determining disruptions to the State

Highway System. More intense storm events, combined with other changes in land use and land cover, can increase the risk of damage or loss from flooding.

The proposed project area lies within the Southern Mojave Watershed is located outside of a floodplain. The National Flood Hazard Layer FIRMette Map 06071C6575H identifies the area as Zone D, which is an area with possible but undetermined flood hazards. The Caltrans Climate Change Vulnerability Assessment mapping tool for District 8 assesses and maps changes in the 100-year storm precipitation depth in the district. According to this assessment,100-year storm precipitation depth in the project area is expected to increase by 2% by 2055 and 3.1% by 2085. Due to the location of the project and the change in percentage of precipitation, the effects of climate change on precipitation and flooding is not likely to adversely affect the project.

WILDFIRE

A climate-change risk analysis for wildfires and associated impacts to transportation facilities involves uncertainties related to the timing and intensity of potential risks. In addition, climate stressors, such as extreme temperatures, are also factors to consider when determining wildfire disruptions to the State Highway System. Climate change models predict that temperatures will continue to increase, thereby leading to longer heat waves and potentially more severe drought events.

According to the map by CalFire's Fire and Resource Assessment Program (FRAP), the majority of the proposed project segment is located in a State Responsibility Area (SRA). North of SR-18 and SR-247 is a Local Responsibility Area (LRA). At Camp Rock Road, the end of the project limits, it is classified as a Federal Responsibility Area (FRA). The project area is classified as a Moderate Fire Hazard Severity Zone (FHSZ). The Caltrans Climate Change Vulnerability Assessment mapping tool does not identify the project area to have a level of concern for the years of 2040 to 2099. However, outside the project limits starting at PM 67.17, there is a "high" level of concern from 2040 to 2069 and "moderate" level of concern from 2070 to 2099. In addition, Caltrans 2023 Standard Specification 7-1.02M(2) mandates fire protection procedures during construction, including a fire prevention plan.

TEMPERATURE

The project site is located within the "Desert" climate region. The desert climate is known to have high temperatures during the day and nights are typically cold. The Caltrans District 8 Climate Change Vulnerability Assessment Map shows that the average minimum temperature in 2055 is anticipated to increase by 4.2 degrees Fahrenheit. The average seven-day maximum temperature in 2055 in anticipated to increase by 5.34 degrees Fahrenheit. In 2085, the minimum temperature change is anticipated to increase by 7.8 degrees Fahrenheit and the average seven-day maximum temperature change is anticipated to increase by 9.4 degrees Fahrenheit. The materials being used for the proposed project would utilize asphalt binder which is the product that holds the aggregate together. Asphalt binder is resistant to temperature variation and would be used with the Partial Depth Reclamation with Hot Mix Asphalt. As a result, the pavement would be stronger. Therefore, the project is resilient to the temperature changes in the project area.

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 and coordination 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 California Department of Fish and Wildlife Service, Regional Water Quality Control Board, United States Army Corp of Engineers, United States Fish and Wildlife Service.

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 May 18, 2023, and follow-up tribal consultation attempts were made on July 5, 2023, and August 4, 2023.

Caltrans contacted Twenty-Nine Palms Band of Mission Indians and Yuhaaviatam of San Manuel Nation.

Caltrans did not receive a response from Twenty-Nine Palms Band of Mission Indians.

Yuhaaviatam of San Manuel Nation responded on May 18, 2023 with an email with an attached letter identifying the point of contact for Yuhaaviatam of San Manuel Nation. The email stated that Ryan Nordness, Cultural Analyst, will provide a response to Caltrans regarding the project. To date, a response has not been received.

4.1.2 US Fish and Wildlife Service (USFWS)

The Project is located within Cushebury milk-vetch habitat and suitable Cushebury milk-vetch habitat is present in the Biological Study Area (BSA). However, the Project Impact Area (PIA) is heavily disturbed and based on ECORP's plant surveys, there is no suitable habitat within the PIA. Therefore, no formal agency with the USFWS is anticipated at this time.

4.1.3 California Department of Fish and Wildlife (CDFW)

Based on the results of the Jurisdictional Delineation (JD), consultation with US Army Corp of Engineers, CDFW, and Regional Water Quality Control Board (RWQCB) may be required to discuss the JD and whether permits are required. No formal agency coordination was conducted prior to Project survey efforts.

Chapter 5 – List of Preparers

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Fatima Islam, Transportation Engineer, Air Specialist

Farhana Islam, Transportation Engineer, Noise Specialist

Bahram Karimi, Associate Environmental Planner, Paleontology Coordinator

Malisa Lieng, Senior Environmental Planner, Generalist

Steven Magallanes, Landscape Architecture

Paul Phan, Senior Transportation Engineer

Warran Powers, Storm Water Quality

Ronald Pham, Project Engineer

Victoria Stosel, Associate Environmental Planner, Archaeologist

Chapter 6 – Distribution List

California Dept. Fish and Wildlife Region 6
3602 Inland Empire Blvd, Suite C-220
Ontario, CA 91764

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

US Army Corp of Engineers
Los Angeles District
915 Wilshire Blvd.
Los Angeles, CA 90017

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

California Air Resources Board
1001 I Street,
Sacramento, CA 95814

California Highway Patrol (Arrowhead)
31230 Highway 18
Running Springs, CA 92382

California Native American Heritage Commission
1550 Harbor Blvd. Suite 100
West Sacramento, CA 95691
nahc@nahc.ca.org

State Water Resources Control Board
P.O Box 100
Sacramento, CA 95812-0100
OPA@waterboards.ca.gov
Personnel@waterboards.ca.gov

Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Pacific Gas and Electric
P.O Box 997300
Sacramento, CA 95899-7300

34th Assembly District
Assemblyman Tom Lackey
14955 Dale Evans Pkwy
Apple Valley, CA 92307

12th Senate District
Senator Shannon Grove
5701 Truxtun Ave., Suite 150
Bakersfield, CA 93309

Big Bear Area Regional Wastewater Agency
121 Palomino Drive, P.O Box 517
Big Bear City, CA 92314

Center Water Company
32774 Old Woman Springs Rd,
Lucerne Valley, CA 92356

Mojave Water Agency
13846 Conference Center Drive
Apple Valley, CA 92307-4377
publicaffairs@mojavewater.org

Southern California Edison
2244 Walnut Grove Ave.
Rosemead, CA 91770

Southwest Gas
P.O Box 24531
Oakland, CA 94623-1531

Frontier Communications
401 Merritt 7
Norwalk, CT 06851

APPENDICES

Appendix A. Title VI Policy Statement

California Department of Transportation

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

September 2022

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 non-discriminatory 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) 639-6392 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 PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

TONY TAVARES
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
In-Lieu Fee Program	California Department of Fish & Wildlife (CDFW)			For Joshua Trees
1602	CDFW			
Approved JD	US Army Corp of Engineers			
Water Discharge Requirement	Regional Water Quality Control Board			

Date of ECR: 12/27/2023

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

ENVIRONMENTAL COMMITMENTS RECORD
(SBD-18 Lucerne Valley Pavement Rehab)

08-SBD-018
PM 66.9/75.6

EA 08-1L140
PN 0819000159
Generalist:
ECL:

Avoidance, Minimization, and/or Mitigation Measures	Page	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/ Phase	SSP or NSSP:	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Complete	Construction Task Complete	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
CULTURAL RESOURCES										

Date of ECR: 12/27/2023

Project Phase:
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☐ PS&E Submittal_____ %
☐ Construction

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							Date / Initials	Date / Initials	YES	NO
CUL-1: Stop work if buried cultural resources are encountered during construction until a qualified archaeologist can evaluate the nature and significance of the find. In the event that human remains, including isolated, disarticulated bones or fragments, are discovered during construction-related activity, cease in the vicinity of the human remains.	N/A	District Environmental Cultural Resources Sept. 27, 2023	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Design/ Construction						
CUL-2: In the event that human remains are found, the county coroner shall be notified and ALL construction activities within 50 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	N/A	District Environmental Cultural Resources Sept. 27, 2023	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Final Design, Construction						

Date of ECR: 12/27/2023

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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; Ashley Bowman, DEBC: (909)472-7730 and Gary Jones, DNAC: (909)261-8157. Further provisions of PRC 5097.98 are to be followed as applicable.										
BIOLOGICAL RESOURCES										
BIO-1: Bio-General-1: **Equipment Staging, Storing, and Borrow Sites**: All staging, storing, and borrow sites require the approval of the Caltrans Biologist.	108	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						

Date of ECR: 12/27/2023

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							Date / Initials	Date / Initials	YES	NO
BIO-2: BIO-General-2: Temporary Artificial Lighting Restrictions Artificial lighting must be directed at the job site to minimize light spillover onto surrounding habitat if project activities occur at night.	108	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						
BIO-3: BIO-General-6: Species Avoidance If during project activities a Joshua tree, special-status plant species, nesting bird or desert tortoise is discovered within the project site, all construction activities must stop within 10 ft for plants, 100 ft for nesting birds, and 50 ft for desert tortoise and the Caltrans Biologist and Resident Engineer must be	108	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						

Date of ECR: 12/27/2023

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notified. Coordination with CDFW and USFWS may be required prior to restarting activities.										
BIO-4: BIO-General-7: Worker Environmental Awareness Program (WEAP) A Qualified Biologist must present a biological resource information program/WEAP for desert tortoise, special-status plant species, and protected natural communities prior to project activities to all personnel that will be present within the project limits for longer than 30 minutes at any given time.	108	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						
BIO-5: BIO-General-8: Biological Monitor:	109	NES	District Design / District	Final Design,						

Date of ECR: 12/27/2023

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							Date / Initials	Date / Initials	YES	NO
The Qualified Biologist must monitor project activities weekly to ensure that measures are being implemented and documented and daily for any nesting birds observed during preconstruction surveys.		August 2023	Biological Studies Planning / Resident Engineer / Contractor	Construction						
BIO-6: BIO-General-9: Environmentally Sensitive Area (ESA) To address impacts to Joshua tree woodland, Sandbar Willow thickets, Fremont cottonwood forest, and Cushenbury milk-vetch critical habitat, delineate this area as an ESA as shown on the plans and/or described in the specifications.	109	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						

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							Date / Initials	Date / Initials	YES	NO
BIO-7: BIO-General-10: Environmentally Sensitive Area (ESA) Fence Monitoring Integrity inspections of temporary high visibility fencing must occur weekly throughout the duration of the project, 30 days prior to commencing project activities, and after activities are completed. If during construction the fence fails, work must stop until it is repaired, and the Qualified Biologist inspects (and clears) the job site.	109	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						
BIO-8: BIO-General-11: ESA Fence Removal All fencing must be removed as a last order of work. During	109	NES August 2023	District Design / District Biological Studies Planning /	Final Design, Construction						

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							Date / Initials	Date / Initials	YES	NO
removal, a Qualified biologist must be present.			Resident Engineer / Contractor							
BIO-9: BIO-General-13: Animal Shelter To prevent inadvertent harm of desert tortoise during project activities, all construction materials including but not limited to culverts and sections of pipe, must be inspected for the presence of wildlife sheltering in them prior to use or movement of those materials. Sheltering animals must be released by the Qualified Biologist.	109	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						
BIO-10: BIO-General-14: Predator Prevention Project personnel are prohibited from	110	NES August 2023	District Design / District Biological Studies	Final Design, Construction						

Date of ECR: 12/27/2023

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							Date / Initials	Date / Initials	YES	NO
feeding wildlife or bringing pets on the job site.			Planning / Resident Engineer / Contractor							
BIO-11: BIO-General-16: Invasive Weed Control To address impacts to natural communities, critical habitat, and special-status plant species, a Qualified Biologist must identify invasive species within the Project Impact Area during shoulder backing and road widening. Treatment and disposal methods must be approved by the Caltrans Biologist prior to vegetation removal.	110	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						
BIO-12: BIO-General- PSM-17: Agency Notification and Reporting Requirements	110	NES August 2023	District Design / District Biological	Final Design,						

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							Date / Initials	Date / Initials	YES	NO
Any listed species within or near the job site, or as specified in BIO-General-6, found alive, injured or dead during the implementation of the Project must be immediately reported to the Resident Engineer and Caltrans Biology. Caltrans Biology must then notify the Resource Agencies. Treatment and/or final deposition must follow Resource Agencies' approval. Monitoring reports must include WEAP training and submitted to the Resource Agencies on a timeframe to be determined.			Studies Planning / Resident Engineer / Contractor	Construction						
BIO-13: BIO-Plant-1: Rare Plant Surveys, Flagging, and Fencing Within three	110	NES	District Design / District	Final Design,						

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days prior to construction, a preconstruction survey must be conducted by a Qualified Biologist for special-status plant species within the PIA and 50 feet of the PIA. Special status species must be flagged for visual identification to construction personnel for work avoidance. Special status plant species detected that feature multiple plants in a single location must be fenced with Environmentally Sensitive Area (ESA) high visibility fencing.		August 2023	Biological Studies Planning / Resident Engineer / Contractor	Construction						
BIO-14: BIO-Plant-PSM- 3: Top Soil Conservation Prior to any groundbreaking activities, the top soil, or duff, of a project must be scrapped and stored to be redistributed	111	NES August 2023	District Design / District Biological Studies Planning / Resident	Final Design, Construction						

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on the project site after construction activities are completed.			Engineer / Contractor							
BIO-15: BIO-Reptile-1: Equipment Flagging After each shift, order project personnel to attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for desert tortoise and other special-status species before operating equipment during the next shift.	111	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						
BIO-16: BIO-Reptile-5: Trash/Predation Caltrans must implement measures to reduce the attractiveness of job sites to desert tortoises,	111	NES August 2023	District Design / District Biological Studies Planning /	Final Design, Construction						

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other special-status reptile species, and other subsidized predators by controlling trash and educating worked.			Resident Engineer / Contractor							
BIO-17: BIO-Avian-1: Preconstruction Nesting Bird Survey If project activities cannot avoid the nesting bird season (February 1 through September 30), then preconstruction nesting bird surveys must be conducted 3 days prior to construction by a Qualified Biologist to locate and avoid nesting birds. If any active nest is located, a no construction buffer may be established and monitored by the Qualified Biologist.	111	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						

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							Date / Initials	Date / Initials	YES	NO
BIO-18: BIO-Avian-2: Preconstruction Burrowing Owl Survey Two burrowing owl preconstruction surveys must be performed: one survey 14 to 30 days prior to project activities, and one survey 24 hours prior to project activities.	111	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						
BIO-19: BIO-Arthropod- 1: Rare Insect Host Plant Preconstruction Clearance Survey, Flagging, and Fencing: No more than 3 days prior to project activities, a Qualified Biologist must perform a preconstruction survey for rare insect host plants within the PIA and 50 outside the PIA. Should any rare insect	112	NES August 2023	District Design / District Biological Studies Planning / Resident Engineer / Contractor	Final Design, Construction						

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host plants be found, the Resident Engineer and Caltrans Biologist must be contacted, and host plants must be flagged by the Qualified biologist for visual identification to construction personnel for work avoidance. Should multiple plants in a single location be found, the groupings must be fenced with Environmentally Sensitive Area (ESA) temporary high visibility fencing.										
BIO-20: BIO-Arthropod-PSM-2: Plant Seed Mix Seed mixes must contain a diverse array of native pollinator plant species.	112	NES August 2023	District Design / District Biological Studies Planning / Resident	Final Design, Construction						

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			Engineer / Contractor							
NOISE AND VIBRATION										
NOI-1: Construction will be conducted in accordance with applicable local noise standards and Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2023 Standard Specifications and SSP 14-8.02	1	Noise Memo September 2023	District Design / District Environmental Engineering / Resident Engineer / Contractor		SSP 14-8.02					
HAZARDOUS WASTE / MATERIALS										
HAZ-1: Handling, storing, transporting and disposing of treated wood waste. Dispose of treated wood waste at one of the following: • An approved CA disposal site		ISA Checklist	District Design / District Environmental Engineering / Resident Engineer / Contractor	Final Design, Construction	SSP 14-11.14					

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operating under RWQCB permit that includes acceptance of treated wood waste • CA disposal site operating under DTSC permit that includes acceptance of treated wood waste										
HAZ-2: SSP 36-4 - Cold Planning. Any handling of leaded paint and thermoplastic from cold planning shall be in accordance with Caltrans' Standard Specifications section 36-4 and comply with Health and Safety Code 22 CA Code of Regs.		ISA Checklist	District Design / District Environmental Engineering / Resident Engineer / Contractor	Final Design, Construction	SSP 36-4					

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Management of this material exposes workers to health hazards that must be addressed in the lead compliance plan.										
GREENHOUSE GAS										
GHG-1: Limit idling to 5 minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).	29	CEQA IS	District Design / District Environmental / Resident Engineer / Contractor	Final Design, Construction						
GHG-2: Maximize use of recycled materials.	29	CEQA IS	District Design / District Environmental / Resident	Final Design, Construction						

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☐ PS&E Submittal_____ %
☐ Construction

ENVIRONMENTAL COMMITMENTS RECORD
(SBD-18 Lucerne Valley Pavement Rehab)

08-SBD-018
PM 66.9/75.6

EA 08-1L140
PN 0819000159
Generalist:
ECL:

Avoidance, Minimization, and/or Mitigation Measures	Page	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/ Phase	SSP or NSSP:	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Complete	Construction Task Complete	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
			Engineer / Contractor							
GHG-3: Recycle existing project features on-site.	29	CEQA IS	District Design / District Environmental / Resident Engineer / Contractor	Final Design, Construction						
GHG-4: Use recycled water or reduce consumption of potable water for construction.	29	CEQA IS	District Design / District Environmental / Resident Engineer / Contractor	Final Design, Construction						
GHG-5: Use Partial Depth Recycling as the construction method to rehabilitate the pavement.	29	CEQA IS	District Design / District Environmental / Resident Engineer / Contractor	Final Design, Construction						

Appendix C. Federal Transportation Improvement Program

SBDLS02	Exempt Grouped Projects for Pavement Resurfacing and/or Pavement Rehabilitation - SHOPP Roadway Preservation Program	2023 FTIP Amendment #23-12

Agency	County	District EA	Notes	Project Description	Program Year (FFY)	Federal Funds	State Funds	Total Project Cost (in $1000's)
Caltrans	**SBd**	**1J270**	**PCR. 2022 SHOPP Amendment #22H-009. CTC June 28-29, 2023 approval.**	**On SR-247 in and near Yucca Valley, from Route 62 to north of Gin Road. Rehabilitate pavement and widen shoulders. RW Cap and CON Cap/Sup Only.**	**2023/24**	**$34,026**	**$0**	**$34,026**
Caltrans	SBd	1J310	PCR: SHOPP Amendment #22H-002, CTC June 29-30, 2022 approval.	On SR-18 near Big Bear Lake, from Arrowbear Drive to Route 38. Rehabilitate culverts and install Changeable Message Sign (CMS). RW Cap and CON Cap/Sup Only.	2023/24	$7,253	$0	$7,253
Caltrans	SBd	1L150	New. 2022 SHOPP approved by CTC March 17, 2022.	On I-15 near Baker, from south of Basin Road to 7.4 miles north of Route 127. Rehabilitate pavement, drainage systems, and lighting, upgrade guardrail, and replace sign panels. PS&E and RW Sup Only.	2023/24	$2,568	$0	$2,568
Caltrans	SBd	1L420	New. 2022 SHOPP approved by CTC March 17, 2022.	On SR-18 near Big Bear Lake, from 1.4 miles south of Baldwin Lake Road to Camp Rock Road. Rehabilitate pavement and drainage systems, upgrade guardrail, and replace sign panels. PS&E and RW Sup Only.	2023/24	$2,586	$0	$2,586
Caltrans	SBd	1L140	New. 2022 SHOPP approved by CTC March 17, 2022.	On SR-18 near Lucerne Valley, from Camp Rock Road to Custer Avenue. Rehabilitate pavement, upgrade guardrail and Transportation Management System (TMS) elements, and construct shoulders and rumble strips. PS&E and RW Sup Only.	2023/24	$6,459	$0	$6,459
Caltrans	SBd	1K940	New. 2022 SHOPP approved by CTC March 17, 2022.	On SR-38 in Redlands, from Route 10 to Occidental Drive; also on spurs from Orange Street to Pearl Avenue (PM S0.372/S0.597) and from Eureka Street to Route 10 (PM S0.598/S0.855). Rehabilitate pavement, upgrade Transportation Management System (TMS) elements, and upgrade facilities to Americans with Disabilities Act (ADA) standards. PS&E and RW Sup Only.	2023/24	$3,676	$0	$3,676
Caltrans	**SBd**	**1K860**	**PCR. 2022 SHOPP Amendment #22H-009. CTC June 28-29, 2023 approval.**	**On SR-38 in near Redlands, from Occidental Drive to Crafton Avenue. Rehabilitate pavement, upgrade Transportation Management System (TMS) elements, and upgrade facilities to Americans with Disabilities Act (ADA) standards. PS&E and RW Sup Only.**	**2023/24**	**$5,889**	**$0**	**$5,889**
Caltrans	SBd	1L100	New. 2022 SHOPP approved by CTC March 17, 2022.	On SR-83 in and near Chino, from Route 71 to north of Chino Avenue. Rehabilitate pavement, replace sign panels, upgrade lighting, construct bus pads, and upgrade facilities to Americans with Disabilities Act (ADA) standards. PS&E and RW Sup Only.	2023/24	$2,281	$0	$2,281
Caltrans	SBd	1L240	New. 2022 SHOPP approved by CTC March 17, 2022.	On US-95 near Needles, from Route 40 to 0.5 mile north of Goffs Road. Rehabilitate pavement and replace Asphalt Concrete (AC) dike and rumble strips. PS&E and RW Sup Only.	2023/24	$1,002	$0	$1,002

Appendix D. List of Technical Studies

- Historic Property Survey Report September 27, 2023
- Hydrology and Water Quality memo July 11, 2023
- ISA Checklist December 27, 2023
- Natural Environment Study August 24, 2023
- Storm Water Data Report May 14, 2021
- Visual Impact Assessment Memo September 6, 2023

Appendix E. References

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